

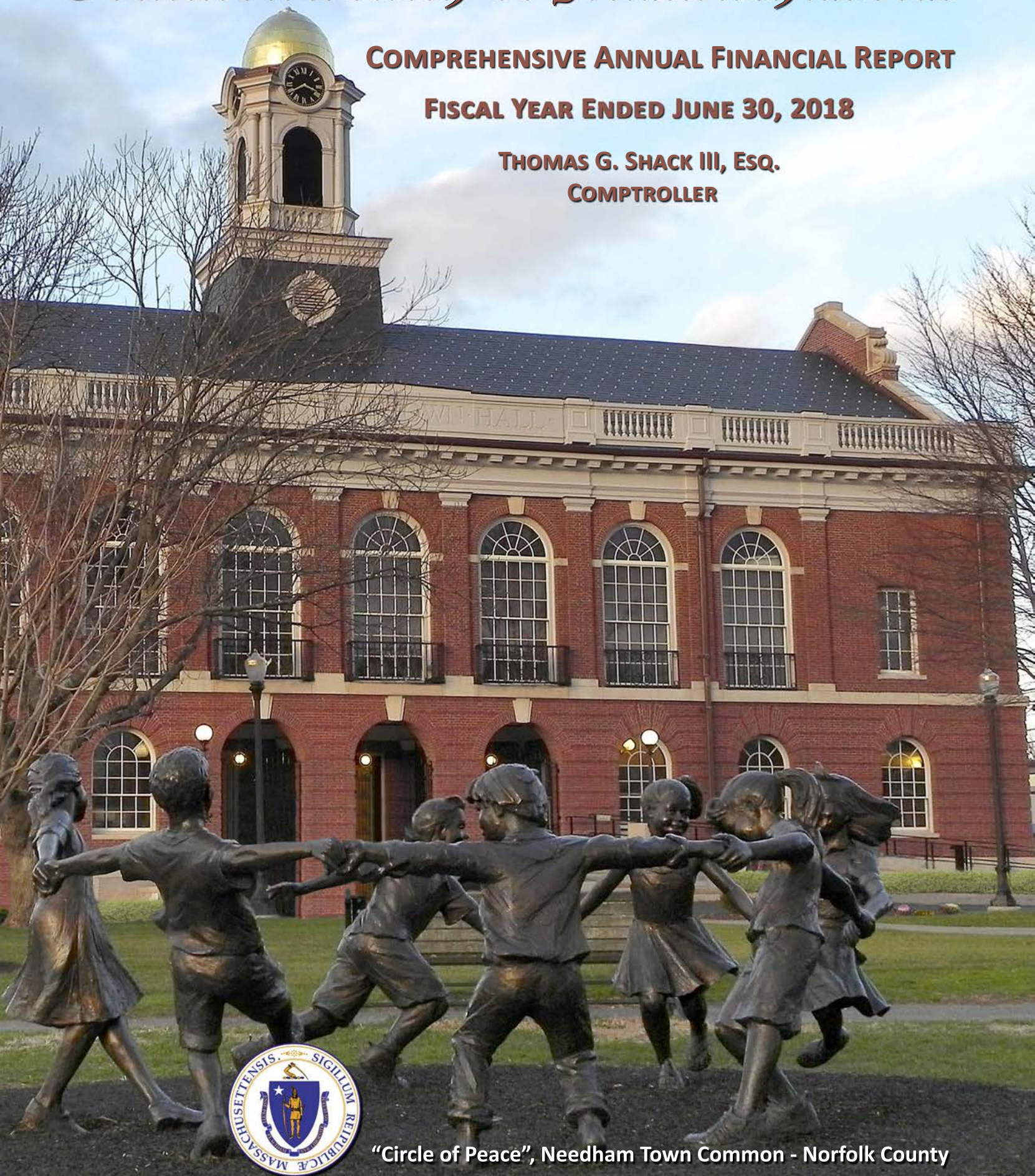
Commonwealth of Massachusetts

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FISCAL YEAR ENDED JUNE 30, 2018

THOMAS G. SHACK III, ESQ.

COMPTROLLER



"Circle of Peace", Needham Town Common - Norfolk County

Commonwealth of Massachusetts



Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2018

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

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

This document is available at the Comptroller's website: www.macomptroller.org

“Circle of Peace” Statue - Needham Town Common - Norfolk County

The “Circle of Peace” is a life-size statue by artist Gary Lee Price. It sits in the center of Needham Town Common and represents children from all walks of life playing together.

According to artist Gary Lee Price, “The circle that the children form represents the continuum of humanity. The clasped hands represent the interaction and cooperation, together with compassion and respect, which engenders humanity. Respect for each other’s uniqueness bridges the gap between any indifference.”

Photo courtesy of flickr user I. Drizik

Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2018

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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 18, 2019

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

We are pleased to provide this Letter of Transmittal for the Commonwealth's fiscal year 2018 (FY18) 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 branch and agency. This information is aggregated from FY18 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 operations on that basis from FY18 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, technology, 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 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, 2018

Budgeted fund balance	\$ 2,386.7
Non-budgeted special revenue fund balance	2,068.7
Capital projects fund balance	265.3
Governmental Fund Balance - Statutory Basis, June 30, 2018	\$ 4,720.7
Plus: Expendable Trust and Similar Fund Statutory balances that are considered Governmental Funds for GAAP reporting purposes	717.5
Less: Massachusetts Department of Transportation Funds	(1,269.0)
Adjusted Statutory Governmental fund balance	4,169.2
Short term accruals, net of allowances and deferrals for increases /(decreases):	
Taxes, net of refunds and abatementes	1,761.6
Tobacco Settlement Agreement receivable	139.6
Medicaid	(443.7)
Other short term accruals:	
Assessments and other receivables	285.5
Amounts due to authorities and municipalities, net	(586.1)
Claims, judgments and other risks	(12.5)
Amounts due to health care providers and insurers	(40.1)
Workers' compensation and group insurance	(166.8)
Other accruals, net	328.1
Net increase to governmental fund balances	1,265.6
Massachusetts School Building Authority fund balance	1,403.4
Total changes to governmental funds	2,669.0
Governmental fund balance (fund perspective)	6,838.2
Plus: Capital assets including infrastructure, net of accumulated depreciation	4,783.7
Deferred revenue, net of other eliminations	370.8
Long-term receivables	28.0
Long term accruals:	
Net pension liability	(36,724.3)
Net deferred (inflows)/outflows of resources related to pension	5,980.0
Net OPEB liability	(15,289.6)
Net deferred (inflows)/outflows of resources related to OPEB	(1,436.1)
Environmental remediation liability	(530.6)
Massachusetts School Building Authority debt and school construction payables	(7,052.1)
Long term debt, unamortized premiums and net deferrals on debt refundings	(29,799.7)
Compensated absences	(605.3)
Capital leases	(22.5)
Accrued interest on bonds	(416.8)
Other long term liabilities	(278.4)
Total governmental net position (entity wide perspective)	\$ (74,154.7)

The deficit of \$74.155 billion in governmental activities net position is largely attributable to several factors. First, the Commonwealth has made a policy decision to finance construction of assets owned by other government entities, particularly Commonwealth roads and bridges, school buildings, and assets of cities and towns and local authorities. As a result of transportation reform implemented during FY10, the Commonwealth shifted virtually all its road and

bridge assets from its books to the newly created Massachusetts Department of Transportation (MassDOT), a component unit of the Commonwealth. Second, starting in FY15, the Commonwealth's net (or unfunded) pension liability, was placed on the Commonwealth's books in accordance with [GASB Statement No. 68, Accounting and Financial Reporting for Pensions](#). Third, the Commonwealth's net (or unfunded) OPEB, or other post-employment benefits (mainly health insurance), liability, was placed on the Commonwealth's books starting in FY18 in accordance with [GASB Statement No. 75, Accounting and Financial Reporting for Post Employment Benefits Other than Pensions](#).

At the end of FY18, MassDOT held \$35.729 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 FY18 the Commonwealth's capital spending on Higher Education capital projects totaled approximately \$1.9 billion, capital spending for transportation-related financial assistance to local governments totaled approximately \$3.5 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 \$5.8 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 \$5.491 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 FY18 with a positive net position of \$25.179 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 of June 30, 2018, the net pension liability in governmental activities totaled \$37.441 billion, offset by GASB 68 related adjustments (in the form of deferred inflows and outflows) of \$6.109 billion; resulting in a reduction in net position of \$31.332 billion. Governmental activities' net OPEB liability totaled \$15.290 billion.

The net deficit in governmental activities (which excludes "business-type activities" of Unemployment Insurance and Higher Education) increased by \$2.007 billion between June 30, 2017 and June 30, 2018. The main contributors to the change were:

- The Commonwealth's net pension liability, after taking into account deferrals of FY18 investment gains and other adjustments that will be recognized over the next several years, grew by \$1.805 billion, primarily due to a reduction, from 7.50%, to 7.35%, in the rate used to discount liabilities.
- As noted 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 FY18, approximately \$2.006 billion of the more than \$2.631 billion in state-funded capital spending generated assets not owned by the Commonwealth, including \$1.315 billion in transportation spending (more than \$437 million of which were grants and other financial assistance to cities and towns), \$123 million for Institutions of Higher Education (which are attributed to the Commonwealth's business-type activities), and approximately \$269 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 debt outstanding increased by \$1.362 billion but Commonwealth fixed assets net of depreciation decline by \$9 million.

Increases in the net deficit (as restated in FY17 for the newly implemented OPEB accounting standards) were offset by a decline of \$1.052 billion in the net OPEB liability between FY17 and FY18, primarily due to lower than projected retiree medical costs for and an increase in the discount rate by which OPEB liabilities are calculated.

The net deficit in government-wide activities, which includes the Commonwealth's business-type as well as governmental activities, increased by \$1.796 billion from FY17, with the deficit in governmental activities partially offset by a surplus 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, 2018. 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.

We would like to express our sincere thanks to the dedicated employees of the Office of the Comptroller, and in particular Deputy Comptrollers Chris Guido, Jenny Hedderman, Howard Merkwowitz, and Kathy Sheppard, whose tireless efforts serve the citizens of the Commonwealth well on a daily basis. We are proud to have them all on this 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, Esq.
Comptroller of the Commonwealth



Jeffrey S. Shapiro, Esq.
First Deputy Comptroller

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

Karen E. Spilka
Senate President

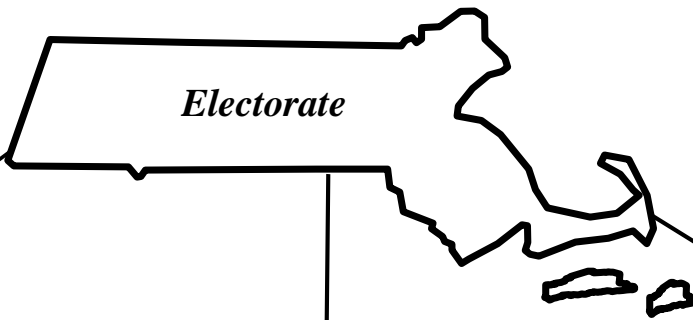
Robert A. DeLeo
Speaker of the House

JUDICIAL OFFICERS

Ralph D. Gants
Chief Justice, Supreme Judicial Court

Mark Green
Chief Justice, Appeals Court

Jonathan Williams
Court Administrator, Trial Court



Legislative Branch	Executive Branch	Judicial Branch
House of Representatives Senate	Governor and Lieutenant Governor [#] 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

Executive Branch Independent Offices and Commissions*		
Board of Library Commissioners Campaign and Political Finance Cannabis Control Commission Center for Health Information & Analysis Commission Against Discrimination	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 University of Massachusetts System

Executive Departments Under Gubernatorial Authority[#]		
<p><u>Administration and Finance</u> 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 Teachers' Retirement System Operational Services Division Public Employee Retirement Administration Commission</p> <p><u>Education</u> 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><u>Housing and Economic Development</u> Executive Office of Housing and Economic Development Department of Business Development Office of Consumer Affairs & Business Regulations Massachusetts Marketing Partnership Department of Housing & Community Development Department of Telecommunications and Cable Division of Banks Division of Insurance Division of Professional Licensure Division of Standards</p> <p><u>Energy and Environmental Affairs</u> 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><u>Technology and Security</u> Executive Office of Technology Services and Security</p> <p><u>Transportation and Public Works</u> Executive Office of Transportation and Public Works</p>	<p><u>Executive Office of Labor and Workforce Development</u></p> <p><u>Health and Human Services</u> 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><u>Public Safety</u> 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
Chief Financial Officer
Massachusetts Convention Center Authority
Gubernatorial Appointee

Natalie Monroe
First Assistant Inspector General
Office of the Inspector General
Gubernatorial Appointee

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For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2017

Christopher P. Morill

Executive Director/CEO



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Financial Section

Independent Auditors' Report

Management's Discussion and Analysis

Basic Financial Statements

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, 2018, 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 U.S. generally accepted accounting principles; 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 following entities and funds:

- Governmental Activities
 - Massachusetts School Building Authority, which is a major governmental fund and represents 8.0% and 1.6% of the total assets and total revenues, respectively, of the Governmental Activities.
- Business-Type Activities
 - University of Massachusetts which is a major enterprise fund
 - Individual state universities listed in note 14 which represent 100% of the total assets and total revenues of the State Universities major enterprise fund
 - Individual community colleges listed in note 14 which represent 100% of the total assets and total revenues of the Community Colleges major enterprise fund

These entities and funds collectively represent 87.0% and 73.9% of the total assets and total revenues, respectively, of the Business-Type Activities.

- Discretely Presented Component Units
 - Individual nonmajor component units listed in note 14 which represent 7.6% and 6.8% of the total assets and total revenues, respectively, of the aggregate discretely presented component units.



Those financial statements were audited by other auditors, whose reports thereon have been furnished to us. We have applied audit procedures to the adjustments to the other post-employment benefits (OPEB) amounts reported for the State Universities and Community Colleges major enterprise funds as described in note 14. Our opinions, insofar as they relate to the amounts included for these entities and funds indicated above, prior to the OPEB adjustments described in note 14 for the State Universities and Community Colleges major enterprise funds, are 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, 2018, 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 Matter

As discussed in Note 1 to the basic financial statements, in fiscal year 2018, the Commonwealth adopted the provisions of Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. Our opinions are not modified with respect to this matter.

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 by us and other auditors. In our opinion, based on our audit, the procedures performed as described above, and the reports of the other auditors, 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 18, 2019 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 18, 2019



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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, 2018 (FY18). 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 FY18 by \$69.136 billion, an increase in the net deficit of \$1.796 billion from FY17 after restating the FY17 net position for the implementation in FY18 of new accounting standards affecting the recording of other post-employment benefits (OPEB).

Of the \$69.136 billion deficit, “unrestricted net position” has a deficit of \$74.849 billion and there is a \$2.334 billion positive balance attributable to net investment in capital assets. There are five primary reasons for the negative unrestricted net position:

- 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 \$35.729 billion as of June 30, 2018. However, the Commonwealth originally paid and continues to pay for the construction of these assets and retains approximately \$13.076 billion in transportation-related debt, which is now unrelated to any capital asset owned by the Commonwealth.
- The Commonwealth has a net liability of \$5.491 billion for its share of the construction costs of schools owned and operated by municipalities through the Massachusetts School Building Authority (MSBA).
- The Commonwealth, through debt issuances, also pays for non-transportation capital assets held by quasi-public entities, local governments, and housing authorities.
- 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 \$37.441 billion as of June 30, 2018.
- In FY18, the Commonwealth implemented GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which requires governments to record on its statement of net assets its unfunded non-pension retiree benefits (or OPEB, mostly health insurance benefits). As a result the Commonwealth has recorded a liability of \$16.681 billion as of June 30, 2018.

At the end of FY18, the Commonwealth also held \$3.379 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 \$1.545 billion in restricted net position balances were set aside for unemployment benefits, an additional \$940 million was restricted for debt retirement (of which \$912 million was restricted for MSBA debt retirement), \$288 million was restricted for Higher Education, and \$606 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 \$2.007 billion, to \$74.155 billion, and its governmental activities unrestricted net deficit increased by approximately \$1.500 billion, to \$74.254 billion, as of June 30, 2018.

Total revenues of the primary government increased by \$3.976 billion, or 6.8% in FY18, to \$62.613 billion. Total expenses of the primary government increased by \$1.371 billion, or approximately 2.2%, to \$64.409 billion. Detail on revenue and expenses can be found on pages 24–28.

The net position of business-type activities increased by \$211 million, due to surpluses of approximately \$139 million in Higher Education activity and \$72 million in the Unemployment Insurance program.

On a "funds perspective" basis, at June 30, 2018, the Commonwealth's governmental funds reported a combined ending fund balance of \$6.838 billion, an increase of \$1.241 billion from June 30, 2017. Of the ending balances:

- There are no nonspendable balances, \$1.520 billion is restricted, \$3.302 billion is committed, \$956 million is assigned and \$1.061 billion is unassigned fund balance (a full discussion of these classifications is included in [Note 1](#) to the basic financial statements, on pages 67–69).
- The MSBA's fund balance of \$1.403 billion is blended with the Commonwealth. Within this fund balance is \$1.278 billion in cash and restricted investments, which resulted primarily from the issuance of debt in FY18 and previous fiscal years, less approximately \$38 million in liabilities. In FY18, \$851 million was dedicated to the MSBA from Commonwealth sales taxes, and the MSBA issued \$395 million in long-term dedicated sales tax bonds to retire outstanding Commercial Paper Notes and close Commercial Paper program.

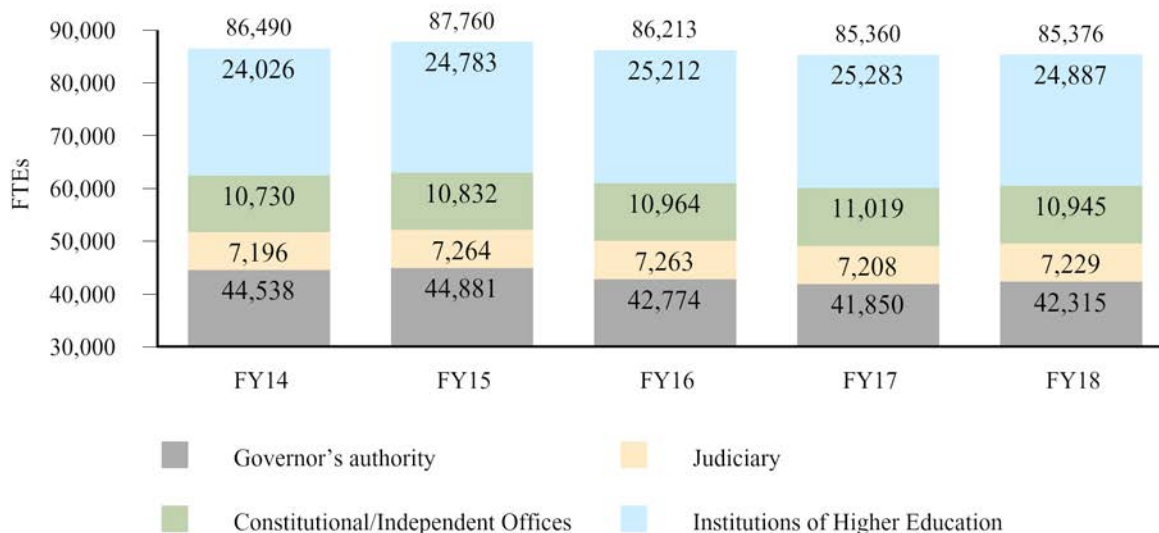
Other highlights of FY18 financial operations include:

- Tobacco settlement proceeds for the year were approximately \$257 million on a GAAP basis, an increase of approximately \$3 million from FY17. Approximately \$140 million has been reported as a receivable in the governmental funds, equal to half of the anticipated tobacco settlement proceeds to be received in FY19. In FY18 approximately \$73 million, or the equivalent of 30% 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 modified for FY18 with the required percentage reduced to 30%.
- During the fiscal year, the Commonwealth passed or agreed to terms of approximately \$444 million 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 FY18 were \$5.443 billion, an increase of approximately \$184 million, or 3.5%, from FY17. Prizes were approximately \$4.345 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 FY18 budget, totaled \$997 million a decrease of \$43 million, or 4.1%, from FY17. Mandated transfers to the General Fund to reimburse it for administrative expense appropriations and other spending totaled \$1.097 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. As of June 30, 2018, the number of Commonwealth employees was virtually the same as on June 30, 2017, increasing over the year by a net of approximately 16 full-time equivalent employees (FTE's), to a total of 85,376.

**Full Time Equivalent Workforce
Including Higher Education
June 2014 – June 2018**



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) 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 36-39](#) 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 of the Commonwealth, 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 blended with the primary government and reported as a governmental fund in 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 61–136](#).

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, fiduciary funds, and component units.

GOVERNMENT-WIDE ANALYSIS

The primary government's combined net position (governmental and business-type activities) showed a net deficit of \$69.136 billion at the end of FY18, an increase in the net deficit of \$1.796 billion from the end of FY17. Governmental activities unrestricted net position is negative by \$74.254 billion. As explained previously, in addition to the \$37.441 billion government-wide net pension liability and the \$16.681 billion OPEB liabilities 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.....	\$ 5,490,802
Outstanding bonds issued to fund the MBTA.....	207
Debt related to MassDOT assets.....	13,075,757
Effect on unrestricted net position of item unique to the Commonwealth	\$ 18,566,766

Of the Commonwealth's approximately \$2.631 billion in FY18 state funded capital spending, about \$2.006 billion did not result in capital assets attributed to governmental activities of the Commonwealth, including approximately \$1.315 billion in transportation spending (with \$437 million in grants and other financial assistance to cities and towns), \$123 million for Institutions of Higher Education (which are included in the Commonwealth's business-type activities) and approximately \$269 million in other capital grants and financial assistance to local governments and quasi-public entities. Between FY05 and FY18 the Commonwealth's capital spending on projects owned by non-Commonwealth entities or by the Institutions of Higher Education totaled \$23.175 billion. These include Higher Education capital projects totaling approximately \$1.936 billion, capital spending for transportation projects now owned by the Massachusetts Department of Transportation totaling approximately \$11.721 billion, transportation-related financial assistance to local governments totaling more than \$3.481 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 \$5.828 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, 2018, the Commonwealth's government-wide current unrestricted cash and cash equivalents totaled \$5.774 billion, an increase of \$1.451 billion from June 30, 2017. Total current assets were \$13.809 billion, an increase of \$1.830 billion from June 30, 2017. As of June 30, 2018, the Commonwealth's current liabilities were \$9.912 billion, a decrease of \$53 million from June 30, 2017.

As of June 30, 2018, the primary government's non-current assets were virtually unchanged from June 30, 2017, totaling \$17.934 billion, an increase of \$84 million.

The Commonwealth holds \$12.602 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 following table shows the Commonwealth's net position. Restricted net position represents resources that are subject to external constraints.

Net Position as of June 30, 2018 and 2017
(in thousands of dollars)

	Governmental Activities		Business-Type Activities		Total Primary Government	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Current assets.....	\$ 11,877,637	\$ 10,199,139	\$ 1,931,540	\$ 1,780,484	\$ 13,809,177	\$ 11,979,623
Non-capital non-current assets	2,557,081	2,823,600	2,774,128	2,621,920	5,331,209	5,445,520
Capital assets	4,783,689	4,793,086	7,818,611	7,610,936	12,602,300	12,404,022
Total assets	19,218,407	17,815,825	12,524,279	12,013,340	31,742,686	29,829,165
Deferred outflows of resources.....	7,675,378	8,646,181	564,243	437,529	8,239,621	9,083,710
Total assets and deferred outflows	26,893,785	26,462,006	13,088,522	12,450,869	39,982,307	38,912,875
Current liabilities	8,916,003	8,971,117	996,367	994,622	9,912,370	9,965,739
Long term liabilities.....	88,837,409	80,227,342	6,795,506	5,276,554	95,632,915	85,503,896
Total liabilities	97,753,412	89,198,459	7,791,873	6,271,176	105,545,285	95,469,635
Deferred inflows of resources.....	3,295,107	650,580	277,753	97,229	3,572,860	747,809
Total liabilities and deferred inflows	101,048,519	89,849,039	8,069,626	6,368,405	109,118,145	96,217,444
Net Position:						
Net investment in capital assets	(1,446,934)	(1,320,834)	3,780,850	3,623,966	2,333,916	2,303,132
Restricted	1,546,202	1,926,716	1,833,109	1,735,575	3,379,311	3,662,291
Unrestricted.....	(74,254,002)	(63,992,915)	(595,063)	722,923	(74,849,065)	(63,269,992)
Total Net Position	\$ (74,154,734)	\$ (63,387,033)	\$ 5,018,896	\$ 6,082,464	\$ (69,135,838)	\$ (57,304,569)

Changes in Net Position

As noted earlier, the Commonwealth's total primary government net deficit increased by approximately \$1.796 billion between FY17 and FY18, to \$69.136 billion. The primary reasons for the \$1.796 billion growth in the net deficit were the increase in the Commonwealth's pension liability, which, net of deferrals, increased by \$1.851 billion, a \$1.276 billion increase in the Commonwealth's net outstanding debt, offset by a \$1.052 billion decrease in the Commonwealth's OPEB liability due to better than projected medical cost experience and changes in the rate at which the Commonwealth's liabilities are discounted.

The following table shows the major categories of government-wide revenues and expenses for FY17 and FY18, as well as net position for the two fiscal years. In FY18, approximately 45% 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. FY18 revenues totaled \$62.613 billion, an increase of \$3.976 billion, or 6.8% from FY17, with tax revenue totaling \$27.964 billion, an increase of \$2.015 billion, or 7.8%, from FY17. The increase in tax revenue was attributable primarily to income tax revenue, which increased by \$1.393 billion, or 9.5%, as withholding on wages and capital gains tax revenue growth was strong. Sales tax revenue grew by \$236 million, or 3.7%, corporate excise tax increased by \$180 million, or 8.5% .

**Revenue from Taxation
FY08 - FY18**



**Changes in Net Position during the Fiscal Years Ended June 30, 2018 and 2017
(in thousands of dollars except percentages)**

	Governmental Activities		Business - Type Activities		Total Primary Government		Total Primary Government		
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017	June 30, 2018 Distribution	June 30, 2017 Distribution	'17 to '18 % Change
Revenues									
Program Revenues:									
Charges for services	\$ 11,107,419	\$ 10,373,902	\$ 4,411,816	\$ 4,280,429	\$ 15,519,235	\$ 14,654,331	24.8%	25.0%	(0.8)%
Operating grants and contributions	16,230,934	15,519,380	932,962	909,228	17,163,896	16,428,608	27.4%	28.0%	(2.1)%
Capital grants and contributions	99,002	58,354	160,201	238,621	259,203	296,975	0.4%	0.5%	(20.0)%
General Revenues:									
Taxes	27,964,093	25,949,577	—	—	27,964,093	25,949,577	44.7%	44.3%	0.9 %
Other	1,283,168	994,982	423,390	312,347	1,706,558	1,307,329	2.7%	2.2%	22.7 %
Total Revenues	56,684,616	52,896,195	5,928,369	5,740,625	62,612,985	58,636,820	100.0%	100.0%	0.7 %
Expenses									
Medicaid	18,105,722	17,182,691	—	—	18,105,722	17,182,691	28.1%	27.3%	2.9 %
Direct local aid	5,900,634	5,734,682	—	—	5,900,634	5,734,682	9.2%	9.1%	1.1 %
Health and human services ..	8,298,704	8,131,843	—	—	8,298,704	8,131,843	12.9%	12.9%	— %
Lottery	4,325,321	4,128,209	—	—	4,325,321	4,128,209	6.7%	6.5%	3.1 %
Higher education	—	—	5,288,632	5,167,033	5,288,632	5,167,033	8.2%	8.2%	— %
Early elementary and secondary education	6,101,603	6,243,115	—	—	6,101,603	6,243,115	9.5%	9.9%	(4.0)%
Unemployment compensation	—	—	1,552,404	1,514,002	1,552,404	1,514,002	2.4%	2.4%	— %
Other	14,835,823	14,936,034	—	—	14,835,823	14,936,034	23.0%	23.7%	(3.0)%
Total Expenses	57,567,807	56,356,574	6,841,036	6,681,035	64,408,843	63,037,609	100.0%	100.0%	0.1 %
Excess/(Deficiency)									
before transfers	(883,191)	(3,460,379)	(912,667)	(940,410)	(1,795,858)	(4,400,789)			
Transfers	(1,123,731)	(1,286,709)	1,123,731	1,286,709	—	—			
Change in net position (deficits)	(2,006,922)	(4,747,088)	211,064	346,299	(1,795,858)	(4,400,789)			
Net position/(deficit) - beginning, as restated	(72,147,812)	(58,639,945)	4,807,832	5,736,165	(67,339,980)	(52,903,780)			
Net position/(deficit) - ending	(\$74,154,734)	(\$63,387,033)	\$ 5,018,896	\$ 6,082,464	(\$69,135,838)	(\$57,304,569)			

Operating grants and contributions (including federal revenue for Medicaid and Unemployment Insurance) totaled \$17.164 billion, an increase of \$735 million, or 4.5%, in FY18, with Medicaid reimbursements increasing by \$42 million, or 0.4%, as enrollment in the program expanded and some reimbursement rates increased due to implementation of the federal Affordable Care Act.

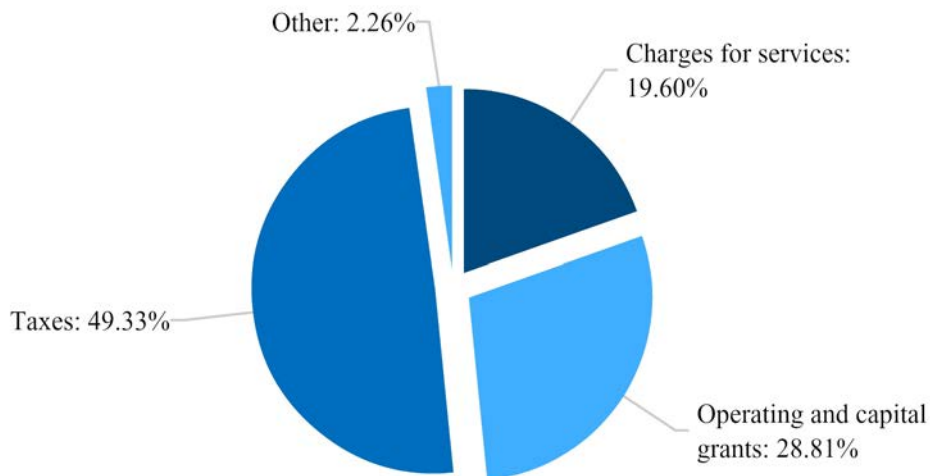
Charges for services totaled \$15.519 billion increasing of \$865 million, or 5.9% from FY17, with increases in charges in Health and Human Services Medicaid and general government, almost fully offset by declines in Lottery ticket purchases and a decrease in Energy and Environmental Affairs charges.

As of June 30, 2018, government-wide restricted net position totaled \$3.379 billion, a decrease of \$285 million, with the majority of the decrease due to assets restricted for other purposes.

Primary government spending totaled \$64.409 billion, an increase of \$1.371 billion, or 2.2%, from FY17, with governmental activities spending (i.e., excluding business-type activities such as Higher Education and the Unemployment Insurance program) totaling \$57.568 billion, an increase of \$1.211 billion, or 2.1%, and business-type activities spending totaling \$6.841 billion, an increase of \$160 million, or 2.4%. Medicaid expenses totaled \$18.106 billion, an increase of \$923 million, or 5.4%, from FY17, as cost saving measures offset increased enrollment growth and higher medical costs. Unemployment insurance compensation expenditures totaled \$1.552 billion, an increase of \$38 million, or 2.5%. Other significant spending changes occurred in Health and Human services, where spending totaled \$8.299 billion, an increase of \$167 million or 2.1%, in transportation and public works, where spending totaled \$2.484 billion, a decrease of \$51 million, or 2.0%, in direct local aid, where spending totaled \$5.901 billion, an increase of \$166 million, or 2.9%, and in general government expenses, where spending totaled \$2.793 billion, an increase of \$28 million, or 1.0%.

Income taxes comprise the bulk of tax revenue. Of the \$27.964 billion in FY18, tax revenue within governmental activities, \$16.048 billion, or approximately 57.4%, of total taxes, was from income taxes, \$6.517 billion, or 23.3%, was from sales taxes, \$2.296 billion, or 8.2%, was from corporate taxes, \$774 million, or 2.8%, was from motor fuels taxes and \$2.329 billion, or 8.3%, was from other forms of taxation. Lottery revenues of \$5.437 billion made up 48.9% of the Commonwealth's governmental charges for services. The largest operating grants were federal Medicaid subsidies, which totaled \$10.188 billion, or approximately 63%, of all grants, other health and human services grants of \$3.118 billion, or 19.2% of all grants, and education grants of \$1.269 billion, or 7.8% 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.

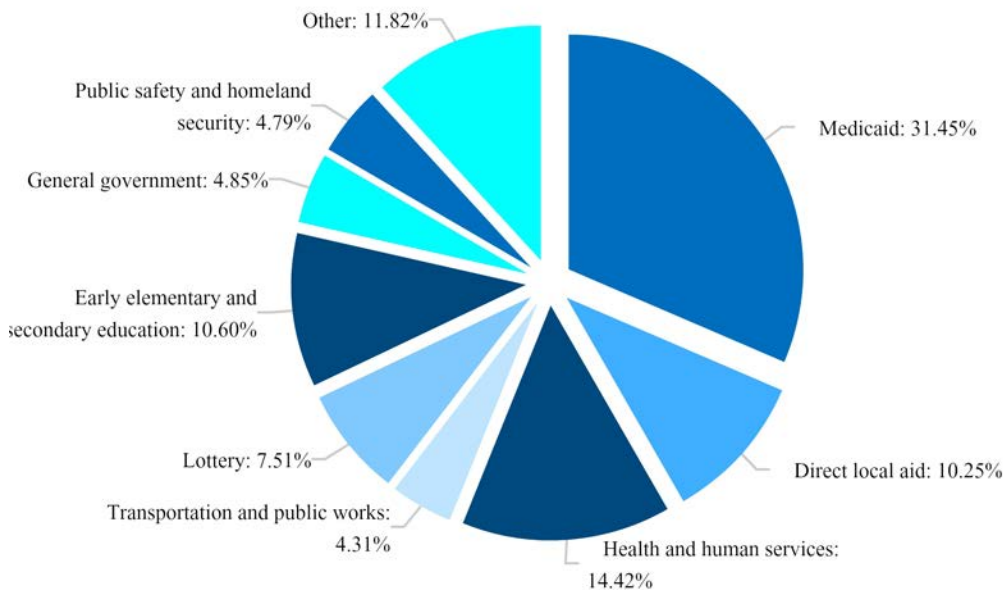
**Revenue—Governmental Activities
Fiscal Year Ending June 30, 2018**



Medicaid expenses of \$18.106 billion accounted for 31.5% 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 \$5.901 billion.

Other large expenditures for governmental activities included non-Medicaid health and human services costs of approximately \$8.299 billion, accounting for 14.4% of governmental expenses, pre-kindergarten through secondary education costs of approximately \$6.102 billion, accounting for 10.6% of governmental expenses and public safety and homeland security costs of approximately \$2.757 billion, accounting for 4.8% of governmental expenses. State employees’ pensions and other post-employment benefits, which are included in the department spending amounts above, were \$3.445 billion.

Major Expenses—Governmental Activities
Fiscal Year Ending June 30, 2018



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, 2018, business–type activities' net position totaled \$5.019 billion, an increase of \$211 million, or 4.4%, from FY17, with the net position of the Institutions of Higher Education increasing by \$139 million to \$3.474 billion and the net position of the Unemployment Insurance program increasing by \$72 million, to \$1.545 billion. Program revenues of business–type activities totaled \$5.505 billion an increase of \$77 million, or 1.4%, charges for services totaled \$4.412 billion, an increase of \$131 million, or 3.1%, with Unemployment Insurance charges increasing by \$114 million, or 7.8%, and Higher Education charges increasing by \$17 million, 0.6%. Operating grants and contributions totaled \$933 million, an increase of \$24 million, or 2.6%, and capital grants and contributions totaled \$160 million, a decrease of \$78 million, or 32.9%.

**Unemployment Compensation Fund
Net Position
Fiscal Years 2014 - 2018
(amounts in millions)**



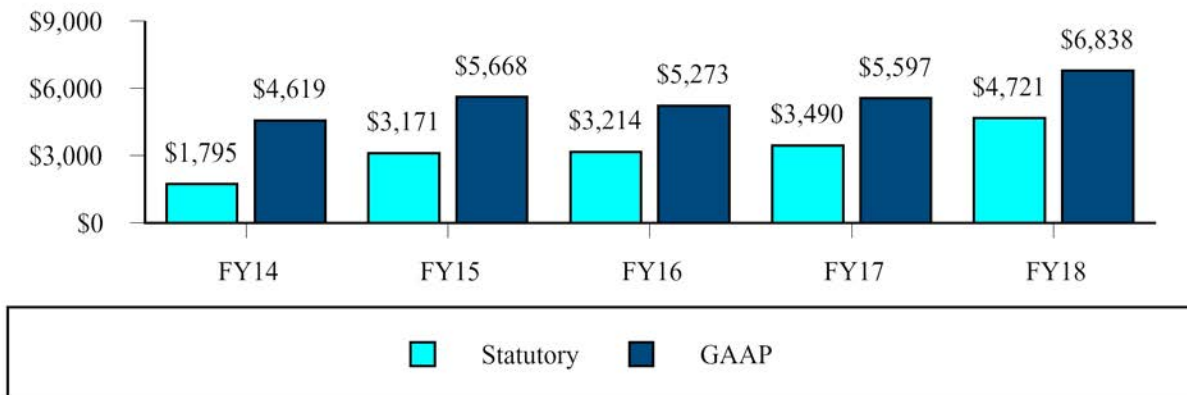
FINANCIAL ANALYSIS OF THE COMMONWEALTH'S FUNDS

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 FY18, the fund balance of the General Fund was \$3.516 billion. Of this amount, \$2.001 billion represents the balance in the Commonwealth's Stabilization Fund. \$350 million was classified as assigned for continuing appropriations from FY18 into FY19 and \$1.165 billion 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)

	FY18	FY17	FY16	FY15	FY14
Beginning fund balances.....	\$ 5,596,870	\$ 5,273,305	\$ 5,305,219	\$ 4,619,434	\$ 4,869,951
Revenues and other financing sources.....	68,990,309	68,437,099	67,749,586	60,658,637	57,209,970
Expenditures and other financing uses	67,748,981	68,113,534	67,781,500	59,972,852	57,460,487
Excess/(deficiency).....	1,241,328	323,565	(31,914)	685,785	(250,517)
Ending fund balances.....	<u>\$ 6,838,198</u>	<u>\$ 5,596,870</u>	<u>\$ 5,273,305</u>	<u>\$ 5,305,219</u>	<u>\$ 4,619,434</u>

FY18 governmental fund revenues and other financing sources totaled \$68.990 billion, an increase of \$553 million, or 0.8%, from FY17, with a decrease of \$1.757 billion in Massachusetts School Building Authority (MSBA) long term debt and commercial paper issuance offsetting an increase of \$2.250 billion, or 3.5%, in non-MSBA revenues and other financing sources. Tax revenues totaled \$28.243 billion, an increase of \$2.415 billion, or 9.4%, primarily due to growth in withholding income, capital gains, sales, and corporate taxes as the Massachusetts economy continued to expand. Federal grants and reimbursements totaled \$16.331 billion, an increase of \$764 million, or 4.9%, due primarily to growth in reimbursable Medicaid spending. Assessments, fees, and investment earnings totaled \$12.880 billion, an increase of \$884 million, or 7.4%. Revenues from other financing sources totaled \$11.536 billion, a decrease of \$3.509 billion, or 23.3%, due to previously mentioned decreases in debt issuance at the MSBA and by the Commonwealth generally.

FY18 governmental fund expenditures and other financing uses totaled \$67.749 billion, a decrease of \$365 million, or 0.5% from FY17, with the decline resulting from a decrease of \$1.676 billion in payments related to debt refunding transactions during FY18 offset by increases in various programmatic spending. Excluding the MSBA, governmental fund expenditures and other financing uses totaled \$64.617 billion, an increase of \$824 million, or 1.3%, from FY17. Medicaid expenditures totaled \$18.106 billion, an increase of \$923 million or 5.4%, with the increase due primarily to enrollment growth and higher medical costs. Debt service expenditures totaled \$5.087 billion, a decrease of \$851 million, or 14.3%, due almost entirely to the decline in MSBA debt service payments. Post-employment benefits totaled \$1.294 billion, an increase of \$167 million, or 14.9%, with the growth mainly due to increased pension contributions. Direct local aid totaled \$5.901 billion, an increase of \$166 million, or 2.9%. Other financing uses totaled \$7.466 billion, a decrease of \$2.054 billion, or 21.6%, with the decrease due primarily to the decline in FY18 debt refundings.

As of June 30, 2018 the Commonwealth's governmental funds reported combined ending fund balance of \$6.838 billion, an increase of \$1.241 billion, or 22.2%, from the previous year.

Governmental Funds - Fund Balance Classification
(amounts in thousands)

	2018	2017	Change	% Change
Restricted	\$ 1,519,833	\$ 1,926,716	\$ (406,883)	(21.1)%
Unrestricted:				
Committed.....	3,301,976	2,351,175	950,801	40.4%
Assigned.....	955,830	684,655	271,175	39.6%
Unassigned.....	1,060,559	634,324	426,235	67.2%
Total Unrestricted	5,318,365	3,670,154	1,648,211	44.9%
Total fund balances	<u>\$ 6,838,198</u>	<u>\$ 5,596,870</u>	<u>\$ 1,241,328</u>	22.2%

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, and residual balances in the General Fund, both of which are classified as unassigned. The \$951 million, or 40.4%, increase in committed balances results primarily from growth in the Stabilization Fund balance in FY18, and the \$426 million, or 67.2%, growth in unassigned balances is due mainly to an increase in General Fund tax receivables resulting from the increase in the Commonwealth's tax base between FY17 and FY18. 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 [65–69](#).

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 \$211 million.

BUDGETARY HIGHLIGHTS

The FY18 budget enacted by the Legislature (the General Appropriation Act) included an FY18 tax revenue estimate of \$26.422 billion (a reduction from the FY18 consensus estimate of \$27.072 billion, which had been adjusted downward by \$650 million after tax revenue was below forecast at the end of FY17), further adjusted upward by \$321 million to \$26.743 billion as a result of \$196 million in tax law changes and \$125 million in tax settlements included in the budget. \$24.864 billion of that revenue was to be deposited in the budgeted funds and \$1.879 billion was to be deposited directly into non-budgeted funds for transfers of sales tax revenue dedicated to the Massachusetts Bay Transportation Authority (\$1.007 billion) and the Massachusetts School Building Authority (\$847 million), and revenue deposited in the non-budgeted Workforce Training Fund (\$25 million). (However, the Governor, in signing the FY18 budget, notified the Legislature that his administration assumed that FY18 tax revenues would be \$26.629 billion (including \$125 million in tax settlement revenues), \$114 million lower than in the Legislature's enacted budget, primarily because he believed that the consensus tax revenue estimate should be reduced by approximately \$750 million, not \$650 million.) The FY18 budget appropriations also reflected the assumption that a reduction in the personal income tax rate would not be triggered during FY18, as had been previously projected in the FY18 consensus tax revenue estimate.

In October 2017, with tax revenues tracking estimates assumed in the FY18 enacted budget, the Secretary of Administration and Finance affirmed the FY18 tax revenue estimate. In January 2018, the Secretary of Administration and Finance revised the Fiscal Year 2018 state tax revenue estimate upward to \$26.761 billion (including \$100 million in projected judgment and settlement revenue), to reflect strong growth in year-to-date income tax withholding.

FY18 tax revenues upon which the FY18 General Appropriation Act was based ended the year at \$27.788 billion (including \$11 million in tax settlements exceeding \$10 million each -- the Commonwealth also received \$26 million in non-tax settlements), of which \$25.907 billion was deposited in the budgeted funds. Tax revenue deposited in the budgeted funds grew by \$2.078 billion, or 8.7%, from FY17, and was \$1.024 billion above the final FY18 tax estimate.

The FY18 General Appropriation Act (GAA) authorized approximately \$40.877 billion in spending, exclusive of approximately \$2.395 billion in required pension contributions and \$109 million in FY17 spending authorized to be continued into FY18 as part of FY17 end-of-year supplemental budgets.

Approximately \$947 million in supplemental appropriations were authorized during FY18, \$464 million of which were enacted prior to June 30, 2018. Subsequent to year end, a supplemental budget was enacted totaling approximately \$483 million in new appropriations, \$135 million of which was to fund FY18 Medicaid expenses, \$40 million of which supplemented local road and bridge capital spending, \$33 million of which was for snow and ice removal costs incurred

by the Massachusetts Department of Transportation in FY18, \$29 million of which was to fund county Sheriffs' FY18 payroll expenses in FY18, with virtually all of the remainder continued to FY19 and reappropriated. In addition to the year-end FY18 supplemental appropriations just described, the year's significant supplemental appropriation activity included:

- \$295 million for transfers to the Medical Assistance Trust Fund;
- \$116 million to fund collective bargaining contracts (\$101 million to be paid in FY19);
- \$26 million for transitional aid to families with dependent children;
- \$20 million for the Underground Storage Tank Program;
- \$19 million for emergency housing assistance to low-income families.

FY18 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 \$43.819 billion, an increase of \$2.652 billion, or 6.4%, from FY17. As the Massachusetts economy continued to expand robustly, tax revenue grew by \$2.078 billion, or 8.7%. Personal income tax withholding increased by \$762 million, or 6.4%, capital gains revenue (part of the personal income tax) increased by \$498 million, or 42.0%, from FY17, sales and use tax grew by \$196 million, or 4.4%, corporate taxes grew by \$199 million, or 9.1%, and estate taxes increased by \$136 million, or 33.9%. Federal reimbursements totaled \$11.377 billion, an increase of \$519 million, or 4.8%, primarily due to growth in reimbursements for increased Medicaid program spending and for Medical Assistance Trust payments to local hospitals that care for Medicaid-eligible patients. Departmental revenue, which consists primarily of assessments and fees for state licenses and state services, totaled \$4.742 billion, an increase of \$360 million, or 8.2%, from FY17, driven largely by an increase of \$165 million in revenues from a new universal health insurance assessment, a \$58 million, or 60.3%, increase in payments from the University of Massachusetts Medical Center to the Commonwealth's General Fund, and a \$57 million, or 10.3%, increase in payments from Massachusetts cities and towns to the Group Insurance Commission to reimburse the Commonwealth for local health insurance programs managed by the GIC. Interfund transfers from non-budgeted funds totaled \$1.793 billion, a decrease of \$306 million, or 14.6%, from FY17, due primarily to reduced trust fund closeouts and other non-budgeted fund transfers to the General Fund.

FY18 budgeted expenditures and other financing uses, including transfers to non-budgeted funds (but before transfers between the budgeted funds) totaled \$42.880 billion, an increase of \$1.679 billion, or 4.1%, from FY17, 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 \$36.132 billion, an increase of \$1.165 billion, or 3.3%, from FY17. Medicaid expenditures totaled \$15.745 billion, an increase of \$493 million, or 3.2%, from FY17, with the growth primarily due to increased medical services utilization, Medicare premium increases, and health care cost growth, especially pharmacy costs for emerging drugs. Spending for direct local aid (both education aid and unrestricted aid), at \$5.886 billion, was up \$182 million, also up 3.2%, from FY17.

Spending on state employee health benefits paid through the Group Insurance Commission (excluding benefits paid to retirees) decreased by \$29 million, or 1.7%, declining from \$1.663 billion to \$1.634 billion. Budgeted debt service totaled \$2.323 billion, up \$39 million, or 1.7%, from FY17.

Interfund transfers to non-budgeted funds (primarily the Universal Health Care funds) totaled \$1.534 billion, an increase of \$243 million or 18.9%, primarily due to an increase in transfers to the Medical Assistance Trust Fund (where expenditures vary greatly from year-to-year, depending on the timeliness of federal government approval of certain reimbursements), which grew by \$177 million, or 43.8% from FY17, and growth in post-employment benefits (for pension contributions and retiree health insurance), which totaled \$2.891 billion, an increase of \$232 million, or 8.7%, as the Commonwealth increased its pension contribution by \$196 million, or 8.9%, from FY17 and increased its transfer to the State Retiree Benefits Trust Fund (to fund retiree health insurance benefits) by \$48 million, from \$25 million to \$73 million.

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, 2018 amounts to approximately \$22.511 billion, with accumulated depreciation of approximately \$9.909 billion, leaving a net book value of \$12.602 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 net investment in capital assets from 2017 to 2018 was approximately \$275 million, with a \$9 million decrease in governmental activities, offset by a \$284 million increase 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.

	Capital Assets at Year - End					
	(net of depreciation)					
	(amounts in thousands)					
	Governmental Activities		Business - Type Activities		Total	
	2018	2017	2018	2017	2018	2017
Land.....	\$ 914,565	\$ 894,529	\$ 229,109	\$ 158,275	\$ 1,143,674	\$ 1,052,804
Historical treasures	—	—	1,464	1,365	1,464	1,365
Construction in process	659,462	866,377	852,119	979,065	1,511,581	1,845,442
Buildings	2,584,028	2,593,744	6,412,902	5,588,573	8,996,930	8,182,317
Machinery and equipment	484,434	288,416	266,330	820,537	750,764	1,108,953
Infrastructure, excluding central artery	141,200	150,020	—	—	141,200	150,020
Library collections.....	—	—	56,687	63,121	56,687	63,121
Total	\$ 4,783,689	\$ 4,793,086	\$ 7,818,611	\$ 7,610,936	\$ 12,602,300	\$ 12,404,022

Additional detail on the Commonwealth's FY18 capital asset activity can be found in [Note 5](#) to the basic financial statements ("Capital Assets") on pages 90–91.

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 FY18 capital budget, the Commonwealth borrowed by issuing \$2.384 billion in long-term bonds, \$1.734 billion of which was general obligation debt and \$650 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 \$993 million in debt to refund already existing debt, taking advantage of continued low interest rates in FY18. 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 2018.

Approximately 13.2% percent of the Commonwealth's \$23.143 billion in general obligation debt outstanding as of June 30, 2018 was issued as variable rate bonds. During fiscal 2018 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 91–92 and [Note 7](#) (“Long-Term Obligations”) on pages 92–108.

Outstanding Long - Term Debt Obligations
(amounts in thousands)

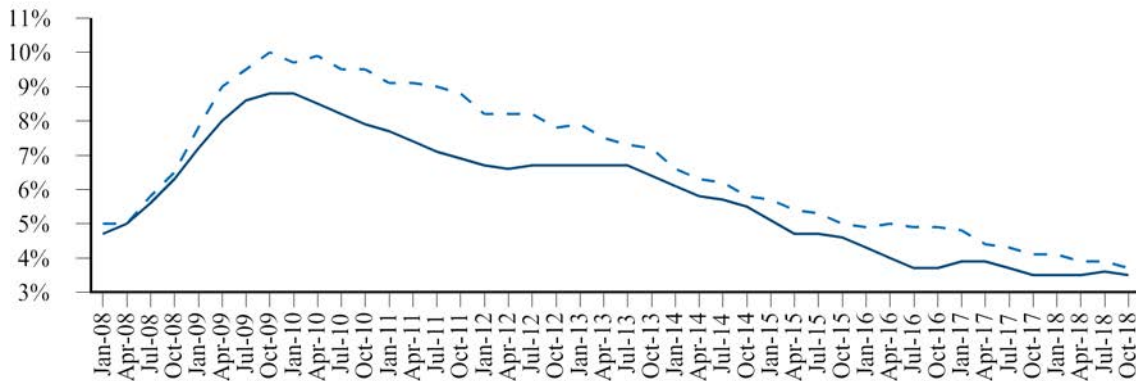
	Governmental Activities		Business - Type Activities		Total	
	2018	2017	2018	2017	2018	2017
General obligation bonds	\$ 23,143,374	\$ 22,716,695	\$ —	\$ —	\$ 23,143,374	\$ 22,716,695
Special obligation bonds (excluding GANs) ...	3,469,000	2,990,960	—	—	3,469,000	2,990,960
Revenue obligation bonds	—	—	4,438,502	4,529,353	4,438,502	4,529,353
Grant anticipation notes	748,445	738,010	—	—	748,445	738,010
Subtotal	27,360,819	26,445,665	4,438,502	4,529,353	31,799,321	30,975,018
Massachusetts School Building Authority	5,990,554	5,828,790	—	—	5,990,554	5,828,790
Total	\$ 33,351,373	\$ 32,274,455	\$ 4,438,502	\$ 4,529,353	\$ 37,789,875	\$ 36,803,808

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 July 2018 the Massachusetts unemployment rate was 3.6%, lower than the national rate of 3.9%, and by October 2018 the Massachusetts rate had fallen to 3.5% compared to the national rate of 3.7%.

*Unemployment Rate
July 2008 – October 2018*



The General Appropriation Act for FY19 is based on an FY19 tax revenue estimate of approximately \$28.509 billion, an increase of \$721 million, or 2.6%, from FY18 actual tax collections. Of that amount, \$23.959 billion represents taxes available for budget after adjusting for \$4.549 billion in tax revenue that is allocated to state pension contributions (\$2.609 billion), sales tax revenue dedicated to the Massachusetts Bay Transportation Authority (\$1.038 billion) and the Massachusetts School Building Authority (\$878 million), and revenue allocated to the non-budgetary Workforce Training Fund (\$24 million).

Through November 30, 2018, FY19 year-to-date tax collections totaled \$10.746 billion, up \$829 million, or 8.4%, from the same period in FY18, \$423 million above the year-to-date benchmark based on the \$28.509 billion FY18 tax revenue estimate. In October 2018 the Secretary of Administration and Finance re-affirmed the FY19 tax revenue estimate of \$28.509 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 or mail to: Commonwealth of Massachusetts, Office of the State Comptroller, 1 Ashburton Place, 9th Floor, Boston, Massachusetts, 02108. You may also download this report at: <https://www.macomptroller.org/cafr>.

Basic Financial Statements

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

Statement of Net Position

June 30, 2018

(Amounts in thousands)

	Primary Government			Discretely Presented Component Units
	Governmental Activities	Business-Type Activities	Government Wide Total	
ASSETS AND DEFERRED OUTFLOWS				
Current assets:				
Cash and cash equivalents.....	\$ 5,206,115	\$ 567,685	\$ 5,773,800	\$ 3,417,913
Restricted cash with fiscal agent.....	294,857	—	294,857	—
Short-term investments.....	272,468	551,249	823,717	—
Assets held in trust.....	—	—	—	46,153
Receivables, net of allowance for uncollectibles:				
Taxes.....	3,345,403	—	3,345,403	—
Federal grants and reimbursements receivable.....	2,209,037	97,472	2,306,509	105,795
Loans.....	7,165	59,903	67,068	634,219
Other receivables.....	503,999	610,471	1,114,470	317,298
Due from cities and towns.....	38,050	—	38,050	—
Due from component units.....	543	1,404	1,947	—
Due from primary government.....	—	—	—	666,177
Other current assets.....	—	43,356	43,356	82,164
Total current assets.....	11,877,637	1,931,540	13,809,177	5,269,719
Noncurrent assets:				
Cash and cash equivalents - restricted.....	—	360,101	360,101	869,818
Long-term investments.....	—	983,757	983,757	1,430,353
Investments, restricted investments and annuity contracts.....	1,968,398	849	1,969,247	54,892
Receivables, net of allowance for uncollectibles:				
Taxes.....	235,651	—	235,651	—
Federal grants and reimbursements receivable.....	69,759	—	69,759	—
Loans.....	94,238	7,326	101,564	4,098,380
Other receivables.....	93,379	64,640	158,019	40,028
Due from component units.....	7,935	—	7,935	—
Due from primary government.....	—	—	—	5,600
Non-depreciable capital assets.....	1,574,027	1,082,692	2,656,719	12,817,767
Depreciable capital assets, net.....	3,209,662	6,735,919	9,945,581	24,038,243
Other noncurrent assets.....	87,274	136,943	224,217	43,303
Other noncurrent assets - restricted.....	447	1,220,512	1,220,959	—
Total noncurrent assets.....	7,340,770	10,592,739	17,933,509	43,398,384
Total assets.....	19,218,407	12,524,279	31,742,686	48,668,103
Deferred outflows of resources:				
Deferred change in fair value of interest rate swaps.....	139,684	19,842	159,526	21,710
Deferred loss on refunding.....	156,594	115,139	271,733	302,920
Deferred outflows related to pension.....	6,860,403	225,692	7,086,095	396,928
Deferred outflows related to OPEB.....	518,697	203,570	722,267	92,586
Total deferred outflows of resources.....	7,675,378	564,243	8,239,621	814,144
Total assets and deferred outflows.....	26,893,785	13,088,522	39,982,307	49,482,247
LIABILITIES AND DEFERRED INFLOWS				
Current liabilities:				
Accounts payable and other liabilities.....	3,875,323	340,795	4,216,118	1,162,666
Accrued payroll.....	109,625	178,799	288,424	1,833
Compensated absences.....	417,490	144,501	561,991	25,384
Accrued interest payable.....	416,834	23,100	439,934	212,995
Tax refunds and abatements payable.....	1,515,582	48,239	1,563,821	—
Due to component units.....	562,581	13	562,594	—
Due to primary government.....	—	—	—	1,947
Due to federal government.....	18,673	—	18,673	—
Claims and judgments.....	12,498	—	12,498	—
Unearned revenue.....	—	16,227	16,227	246,047

Statement of Net Position

June 30, 2018

(Amounts in thousands)

	Primary Government			Discretely Presented Component Units
	Governmental Activities	Business-Type Activities	Government Wide Total	
Deposits and unearned revenue.....	—	83,689	83,689	—
School construction grants payable.....	219,505	—	219,505	—
Capital leases.....	3,272	2,180	5,452	—
Massachusetts School Building Authority bonds and unamortized premiums....	184,054	—	184,054	—
Bonds payable and unamortized premiums	1,574,414	158,824	1,733,238	722,305
Environmental remediation liability	6,152	—	6,152	—
Total current liabilities	8,916,003	996,367	9,912,370	2,373,177
Noncurrent liabilities:				
Compensated absences.....	187,838	67,066	254,904	15,923
Accrued interest payable	—	—	—	198,917
Due to component units	5,600	—	5,600	—
Due to primary government	—	—	—	7,935
Due to federal government - grants.....	—	6,157	6,157	—
Claims and judgments	10,000	—	10,000	—
Unearned revenue.....	—	—	—	15,860
Prizes payable.....	971,434	—	971,434	—
Capital leases.....	19,220	7,645	26,865	58,517
Bonds payable and unamortized premiums	27,921,987	4,279,678	32,201,665	10,564,268
Massachusetts School Building Authority bonds and unamortized premiums....	6,419,231	—	6,419,231	—
School construction grants payable.....	262,151	—	262,151	—
Environmental remediation liability	524,459	—	524,459	—
Liability for derivative instruments.....	139,684	42,557	182,241	251,950
Net pension liability	36,724,303	716,650	37,440,953	1,973,209
Net OPEB liability	15,289,604	1,391,846	16,681,450	3,082,223
Other noncurrent liabilities	361,898	283,907	645,805	211,593
Total noncurrent liabilities	88,837,409	6,795,506	95,632,915	16,380,395
Total liabilities	97,753,412	7,791,873	105,545,285	18,753,572
Deferred inflows of resources:				
Deferred service concession arrangements	—	13,394	13,394	1,003
Deferred inflows related to pension	880,386	96,419	976,805	90,383
Deferred gain on refunding	459,888	—	459,888	8,858
Deferred inflows related to OPEB	1,954,833	166,753	2,121,586	280,213
Other.....	—	1,187	1,187	—
Total deferred inflows of resources	3,295,107	277,753	3,572,860	380,457
Total liabilities and deferred inflows	101,048,519	8,069,626	109,118,145	19,134,029
NET POSITION				
Net investment in capital assets	(1,446,934)	3,780,850	2,333,916	30,350,557
Restricted for:				
Unemployment benefits	—	1,544,991	1,544,991	—
Retirement of indebtedness.....	939,900	—	939,900	—
Higher education endowment funds	—	28,800	28,800	—
Higher education academic support and programs.....	—	2,500	2,500	—
Higher education scholarships and fellowships:				
Nonexpendable	—	3,627	3,627	—
Expendable	—	8,110	8,110	—
Other nonexpendable purposes	—	221	221	—
Capital projects - expendable purposes.....	—	6,374	6,374	—
Other purposes	606,302	238,486	844,788	3,787,635
Unrestricted (deficits).....	(74,254,002)	(595,063)	(74,849,065)	(3,789,974)
Total net position	\$ (74,154,734)	\$ 5,018,896	\$ (69,135,838)	\$ 30,348,218

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

(concluded)

Statement of Activities

Fiscal Year Ended June 30, 2018

(Amounts in thousands)

Functions/Programs	Expenses	Program Revenues			Net (Expenses) Revenues and Changes in Net Assets			Discretely Presented Component Units
		Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions	Primary Government			
					Governmental Activities	Business- Type Activities	Total	
Primary government:								
Governmental Activities:								
General government	\$ 2,792,578	\$ 652,138	\$ 687,012	\$ 1,653	\$ (1,451,775)	\$ —	\$ (1,451,775)	\$ —
Judiciary	1,162,698	91,500	2,067	—	(1,069,131)	—	(1,069,131)	—
Direct local aid	5,900,634	—	—	—	(5,900,634)	—	(5,900,634)	—
Medicaid	18,105,722	1,054,698	10,187,968	76,933	(6,786,123)	—	(6,786,123)	—
Group health insurance	1,648,278	941,946	—	—	(706,332)	—	(706,332)	—
Energy and environmental affairs	732,161	273,504	70,114	—	(388,543)	—	(388,543)	—
Housing and economic development	1,544,103	213,530	530,660	—	(799,913)	—	(799,913)	—
Health and human services	8,298,704	1,292,584	3,117,650	—	(3,888,470)	—	(3,888,470)	—
Transportation and public works	2,483,768	625,595	454	20,416	(1,837,303)	—	(1,837,303)	—
Early elementary and secondary education	6,101,603	7,846	1,269,241	—	(4,824,516)	—	(4,824,516)	—
Public safety and homeland security	2,757,266	248,234	213,280	—	(2,295,752)	—	(2,295,752)	—
Labor and workforce development	295,061	269,293	152,488	—	126,720	—	126,720	—
Lottery	4,325,321	5,436,551	—	—	1,111,230	—	1,111,230	—
Interest (unallocated)	1,419,910	—	—	—	(1,419,910)	—	(1,419,910)	—
Total governmental activities	57,567,807	11,107,419	16,230,934	99,002	(30,130,452)	—	(30,130,452)	—
Business-Type Activities:								
Unemployment Compensation	1,552,404	1,582,755	41,420	—	—	71,771	71,771	—
Higher Education:								
University of Massachusetts	3,307,087	1,907,824	567,678	67,437	—	(764,148)	(764,148)	—
State Universities	1,089,554	658,608	96,944	2,344	—	(331,658)	(331,658)	—
Community Colleges	891,991	262,629	226,920	90,420	—	(312,022)	(312,022)	—
Total business-type activities	6,841,036	4,411,816	932,962	160,201	—	(1,336,057)	(1,336,057)	—
Total primary government	\$ 64,408,843	\$ 15,519,235	\$ 17,163,896	\$ 259,203	(30,130,452)	(1,336,057)	(31,466,509)	—
Discretely Presented Component Units:								
Massachusetts Department of Transportation	\$ 5,540,247	\$ 1,581,834	\$ 2,204,163	\$ 2,374,926	—	—	—	\$ 620,676
Commonwealth Health Insurance Connector	789,356	746,057	47,316	—	—	—	—	4,017
Massachusetts Clean Water Trust	142,579	113,643	26,003	72,520	—	—	—	69,587
Other nonmajor component units	497,313	343,282	54,629	46,260	—	—	—	(53,142)
Total discretely presented component units	\$ 6,969,495	\$ 2,784,816	\$ 2,332,111	\$ 2,493,706	—	—	—	641,138

(continued)

	Primary Government			Discretely Presented Component Units
	Governmental Activities	Business-Type Activities	Total	
General revenues:				
Taxes:				
Income	16,048,087	—	16,048,087	—
Sales taxes	6,517,085	—	6,517,085	—
Corporate taxes	2,295,833	—	2,295,833	—
Motor and special fuel taxes	774,417	—	774,417	—
Other taxes	2,328,671	—	2,328,671	—
Miscellaneous:				
Investment earnings/(loss)	84,341	(74,878)	9,463	64,922
Tobacco settlement	257,313	—	257,313	—
Contribution from municipalities	80,768	—	80,768	—
Other revenue	860,746	498,268	1,359,014	136,321
Transfers	(1,123,731)	1,123,731	—	—
Total general revenues and transfers	28,123,530	1,547,121	29,670,651	201,243
Change in net position	(2,006,922)	211,064	(1,795,858)	842,381
Net position (deficits) - beginning, as restated	(72,147,812)	4,807,832	(67,339,980)	29,505,837
Net position (deficits) - ending	\$ (74,154,734)	\$ 5,018,896	\$ (69,135,838)	\$ 30,348,218

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, 2018
(Amounts in thousands)

	General	Lotteries	Massachusetts School Building Authority	Other Governmental Funds	Total
ASSETS					
Cash and cash equivalents	\$ 2,451,807	\$ 46,658	\$ 206,192	\$ 2,501,458	\$ 5,206,115
Restricted cash with fiscal agent.....	—	—	74,816	220,041	294,857
Investments and restricted investments	272,468	—	996,964	—	1,269,432
Receivables, net of allowance for uncollectibles:					
Taxes	3,326,733	—	68,586	185,735	3,581,054
Due from federal government.....	1,910,956	—	—	367,840	2,278,796
Loan receivable.....	—	—	86,403	15,000	101,403
Other receivables	411,436	3,505	8,715	142,247	565,903
Due from cities and towns	38,050	—	—	—	38,050
Due from other funds	26,651	—	—	71,734	98,385
Due from component units.....	543	—	—	—	543
Total assets	\$ 8,438,644	\$ 50,163	\$ 1,441,676	\$ 3,504,055	\$ 13,434,538
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES					
Liabilities:					
Accounts payable	\$ 2,922,654	\$ 44,219	5,072	\$ 863,255	\$ 3,835,200
Accrued payroll.....	99,118	—	—	10,507	109,625
Tax refunds and abatements payable	1,514,831	—	320	431	1,515,582
Due to other funds.....	—	—	—	98,385	98,385
Due to component units	45,998	—	—	516,583	562,581
Due to federal government.....	18,673	—	—	—	18,673
Claims and judgments.....	12,498	—	—	—	12,498
School construction grants payable	—	—	32,883	—	32,883
Other accrued liabilities	51	—	—	40,073	40,124
Total liabilities	4,613,823	44,219	38,275	1,529,234	6,225,551
Deferred inflows of resources	309,029	4,760	—	57,000	370,789
Total liabilities and deferred inflows of resources	4,922,852	48,979	38,275	1,586,234	6,596,340
Fund balances:					
Restricted	—	—	968,324	551,509	1,519,833
Committed.....	2,001,299	1,184	—	1,299,493	3,301,976
Assigned.....	349,927	—	435,077	170,826	955,830
Unassigned (deficits)	1,164,566	—	—	(104,007)	1,060,559
Fund balances	3,515,792	1,184	1,403,401	1,917,821	6,838,198
Total liabilities, deferred inflows of resources and fund balances	\$ 8,438,644	\$ 50,163	\$ 1,441,676	\$ 3,504,055	\$ 13,434,538

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, 2018

(Amounts in thousands)

Total fund balances - governmental funds \$ **6,838,198**

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	1,574,027	
Capital assets being depreciated, net	3,209,662	
Capital assets, net of accumulated depreciation		4,783,689

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.....		370,789
---	--	---------

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

Gain on refunding	(459,888)	
Pension related	(880,386)	
OPEB related	(1,954,833)	
Total deferred inflow of resources.....		(3,295,107)

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

Loss on refunding	156,594	
Pension related	6,860,403	
OPEB related	518,697	
Total deferred outflow of resources.....		7,535,694

Massachusetts School Building Authority assets and deferred outflows		91,196
--	--	--------

Long-term receivables		28,000
-----------------------------	--	--------

Lottery annuity contracts.....		971,434
--------------------------------	--	---------

Due from component units		7,935
--------------------------------	--	-------

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.....	(36,724,303)	
Net OPEB liability	(15,289,604)	
Commonwealth bonded debt	(27,360,819)	
Unamortized bond premiums.....	(2,135,582)	
Accrued interest on bonds.....	(416,834)	
Massachusetts School Building Authority bonded debt	(6,603,285)	
Massachusetts School Building Authority grants to municipalities	(448,773)	
Prizes payable	(971,434)	
Capital leases	(22,492)	
Environmental remediation liability	(530,611)	
Claims and judgments.....	(10,000)	
Employee benefits, including compensated absences, health insurance benefits and other compensation claims	(972,825)	
Long-term liabilities (including current portions).....		(91,486,562)

Total net (deficit) - governmental activities		\$ (74,154,734)
--	--	------------------------

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, 2018
 (Amounts in thousands)

	General	Lotteries	Massachusetts School Building Authority	Other Governmental Funds	Total
REVENUES					
Taxes.....	\$ 24,627,517	\$ 487	\$ 850,569	\$ 2,764,802	\$ 28,243,375
Assessments.....	417,109	—	—	936,687	1,353,796
Federal grants and reimbursements	11,472,046	—	—	4,858,712	16,330,758
Departmental	3,356,390	5,436,938	—	1,523,625	10,316,953
Miscellaneous	595,547	5,108	38,818	569,616	1,209,089
Total revenues	40,468,609	5,442,533	889,387	10,653,442	57,453,971
EXPENDITURES					
Current:					
Legislature	67,850	—	—	—	67,850
Judiciary.....	919,012	—	—	2,084	921,096
Inspector General.....	4,369	—	—	396	4,765
Governor and Lieutenant Governor.....	6,574	—	—	5	6,579
Secretary of the Commonwealth	39,339	—	—	5,710	45,049
Treasurer and Receiver-General	171,110	4,344,864	12,388	1,325,408	5,853,770
Auditor of the Commonwealth.....	18,610	—	—	142	18,752
Attorney General	47,969	—	—	49,669	97,638
Ethics Commission	2,042	—	—	—	2,042
District Attorney	119,206	—	—	9,765	128,971
Office of Campaign and Political Finance	1,594	—	—	—	1,594
Sheriff's Departments	620,510	—	—	14,839	635,349
Disabled Persons Protection Commission.....	3,131	—	—	571	3,702
Board of Library Commissioners	25,443	—	—	2,791	28,234
Massachusetts Gaming Commission.....	—	—	—	44,236	44,236
Comptroller.....	13,877	—	—	2,444	16,321
Administration and Finance.....	2,188,035	—	—	286,992	2,475,027
Energy and Environmental Affairs	212,803	—	—	232,467	445,270
Health and Human Services	5,922,254	—	—	1,891,141	7,813,395
Executive Office of Technology Services	73,528	—	—	7,746	81,274
Massachusetts Department of Transportation.....	—	—	—	2,387,223	2,387,223
Office of the Child Advocate.....	706	—	—	—	706
Cannabis Control Commission.....	2,241	—	—	—	2,241
Executive Office of Education	2,668,507	—	—	1,054,400	3,722,907
Center for Health and Information Analysis.....	21,452	—	—	5	21,457
Massachusetts School Building Assistance.....	—	—	550,332	—	550,332
Public Safety and Homeland Security	1,164,730	—	—	234,924	1,399,654
Housing and Economic Development	532,560	—	—	556,837	1,089,397
Labor and Workforce development	55,392	—	—	199,802	255,194
Medicaid.....	15,811,390	—	—	2,294,331	18,105,721
Post employment benefits.....	1,247,765	—	1,602	45,059	1,294,426
Direct local aid.....	5,836,291	—	—	64,343	5,900,634
Capital outlay:					
Capital acquisition and construction.....	—	—	—	1,252,995	1,252,995
Debt service/commercial paper repayments.....	—	—	2,568,049	2,518,969	5,087,018
Principal on current refundings	—	—	—	521,865	521,865
Total expenditures	37,798,290	4,344,864	3,132,371	15,007,159	60,282,684
Excess/(deficiency) of revenues over/(under) expenditures	2,670,319	1,097,669	(2,242,984)	(4,353,717)	(2,828,713)
OTHER FINANCING SOURCES					
Bonds premium.....	—	—	51,136	510,383	561,519
Issuance of general and special obligation bonds.....	—	—	395,000	2,384,443	2,779,443
Issuance of current refunding bonds.....	—	—	—	466,735	466,735
Issuance of advance refunding bonds.....	—	—	—	526,180	526,180
Commercial paper proceeds	—	—	1,487,665	—	1,487,665
Proceeds of capital leases	228	—	—	—	228
Transfers in for debt service	—	—	—	2,480,756	2,480,756
Transfers in	1,651,451	—	—	1,582,361	3,233,812
Total other financing sources.....	1,651,679	—	1,933,801	7,950,858	11,536,338
OTHER FINANCING USES					
Payments to refunding bond escrow agent.....	—	—	—	627,998	627,998
Transfers out	809,611	1,097,398	—	1,176,986	3,083,995
Transfers of appropriations.....	1,150,483	—	—	1,396	1,151,879
Transfers of bond proceeds.....	—	—	—	121,669	121,669
Transfers out for debt service	1,184,124	—	—	1,296,632	2,480,756
Total other financing uses	3,144,218	1,097,398	—	3,224,681	7,466,297
Total other financing sources and uses	(1,492,539)	(1,097,398)	1,933,801	4,726,177	4,070,041
Net change in fund balances/(deficits)	1,177,780	271	(309,183)	372,460	1,241,328
Fund balances at beginning of year	2,338,012	913	1,712,584	1,545,361	5,596,870
Fund balances at end of year.....	\$ 3,515,792	\$ 1,184	\$ 1,403,401	\$ 1,917,821	\$ 6,838,198

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, 2018

(Amounts in thousands)

Net change in fund balances - total governmental funds	\$ 1,241,328
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	224,845
Current year depreciation expense	(234,243)
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	(284,351)
Long-term receivables	28,000
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.....	(1,349,826)
Decrease in capital leases.....	8,364
Massachusetts School Building Authority.....	561,790
Net pension costs	(1,804,625)
Net OPEB costs.....	(383,954)
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.....	(14,250)
Change in net position of governmental activities	<u><u>\$ (2,006,922)</u></u>

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, 2018

(Amounts in thousands)

		Unemployment Compensation Trust Fund	University of Massachusetts	State Universities	Community Colleges	Total
ASSETS AND DEFERRED OUTFLOWS:						
Current assets:						
Cash and cash equivalents.....	\$	23,402	\$ 103,152	\$ 302,904	\$ 138,227	\$ 567,685
Short-term investments		—	470,139	30,662	50,448	551,249
Receivables, net of allowance for uncollectibles:						
Federal grants and reimbursements receivable.....		—	92,784	1,328	3,360	97,472
Loans		—	58,571	1,332	—	59,903
Other receivables		389,388	116,860	23,947	38,120	568,315
Due from affiliates		—	42,156	—	—	42,156
Due from foundation		—	142	402	860	1,404
Other current assets		—	34,881	5,157	3,318	43,356
Total current assets		412,790	918,685	365,732	234,333	1,931,540
Noncurrent assets:						
Cash and cash equivalents - restricted.....		—	327,237	31,659	1,205	360,101
Long-term investments		—	775,294	156,667	51,796	983,757
Investments and restricted investments		—	—	849	—	849
Other receivables, net		—	64,251	364	25	64,640
Loans receivable, net		—	—	7,175	151	7,326
Non-depreciable capital assets.....		—	786,856	95,160	200,676	1,082,692
Depreciable capital assets, net.....		—	4,288,620	1,896,364	550,935	6,735,919
Other noncurrent assets		—	124,527	11,806	610	136,943
Other noncurrent assets - restricted		1,220,512	—	—	—	1,220,512
Total noncurrent assets		1,220,512	6,366,785	2,200,044	805,398	10,592,739
Total assets		1,633,302	7,285,470	2,565,776	1,039,731	12,524,279
Deferred outflows of resources:						
Deferred change in fair value of interest rate swaps		—	18,887	—	955	19,842
Deferred outflows related to pensions		—	126,244	65,046	34,402	225,692
Deferred outflows related to OPEB		—	121,761	57,319	24,490	203,570
Loss on debt refunding		—	74,443	40,696	—	115,139
Total deferred outflows of resources		—	341,335	163,061	59,847	564,243
Total assets and deferred outflows		1,633,302	7,626,805	2,728,837	1,099,578	13,088,522
LIABILITIES AND DEFERRED INFLOWS:						
Current liabilities:						
Accounts payable and other liabilities.....		40,072	230,265	37,901	32,557	340,795
Accrued payroll		—	107,820	42,627	28,352	178,799
Compensated absences		—	76,749	35,028	32,724	144,501
Accrued interest payable		—	22,308	675	117	23,100
Tax refunds and abatements payable.....		48,239	—	—	—	48,239
Unearned revenue.....		—	—	12,996	3,231	16,227
Student deposits and unearned revenues		—	52,884	8,182	22,623	83,689
Due to foundation.....		—	13	—	—	13
Capital leases		—	635	909	636	2,180
Bonds, notes payable and other obligations		—	105,584	48,598	4,642	158,824
Total current liabilities		88,311	596,258	186,916	124,882	996,367
Noncurrent liabilities:						
Compensated absences		—	31,556	19,582	15,928	67,066
Due to federal government - grants		—	—	6,157	—	6,157
Capital leases		—	1,627	4,946	1,072	7,645
Bonds, notes payable and other obligations		—	2,915,253	1,299,979	64,446	4,279,678
Liability for derivative instruments		—	41,602	—	955	42,557
Net pension liability.....		—	420,234	187,369	109,047	716,650
Net OPEB liability.....		—	817,357	362,388	212,101	1,391,846
Other noncurrent liabilities.....		—	272,549	6,860	4,498	283,907
Total noncurrent liabilities		—	4,500,178	1,887,281	408,047	6,795,506
Total liabilities		88,311	5,096,436	2,074,197	532,929	7,791,873

Statement of Net Position

Proprietary Funds

June 30, 2018

(Amounts in thousands)

	Unemployment Compensation Trust Fund	University of Massachusetts	State Universities	Community Colleges	Total
Deferred inflows of resources:					
Deferred service concession arrangements.....	—	—	12,982	412	13,394
Deferred inflows related to pensions	—	45,540	20,737	30,142	96,419
Deferred inflows related to OPEB	—	95,945	42,540	28,268	166,753
Other	—	—	—	1,187	1,187
Total deferred inflows of resources.....	—	141,485	76,259	60,009	277,753
Total liabilities and deferred inflows.....	88,311	5,237,921	2,150,456	592,938	8,069,626
NET POSITION:					
Net investment in capital assets	—	2,288,599	810,612	681,639	3,780,850
Restricted for:					
Unemployment benefits	1,544,991	—	—	—	1,544,991
Higher education endowment funds.....	—	28,022	347	431	28,800
Higher education academic support and programs	—	—	867	1,633	2,500
Higher education scholarships and fellowships:					
Nonexpendable	—	—	3,627	—	3,627
Expendable	—	—	5,591	2,519	8,110
Other nonexpendable purposes	—	—	221	—	221
Capital projects - expendable purposes.....	—	—	1,974	4,400	6,374
Other purposes.....	—	222,343	14,641	1,502	238,486
Unrestricted	—	(150,080)	(259,499)	(185,484)	(595,063)
Total net position.....	\$ 1,544,991	\$ 2,388,884	\$ 578,381	\$ 506,640	\$ 5,018,896

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, 2018

(Amounts in thousands)

	Unemployment Compensation Trust Fund	University of Massachusetts	State Universities	Community Colleges	Total
Operating revenues:					
Unemployment compensation contribution	\$ 1,550,379	\$ —	\$ —	\$ —	\$ 1,550,379
Net tuition and fees.....	—	874,826	420,735	210,343	1,505,904
Grants and reimbursements	—	560,990	96,944	226,920	884,854
Auxiliary enterprises	—	416,733	128,414	11,444	556,591
Sales & services.....	—	480,106	93,662	24,814	598,582
Miscellaneous	32,376	136,159	15,797	16,028	200,360
Total operating revenues.....	1,582,755	2,468,814	755,552	489,549	5,296,670
Operating expenses:					
Unemployment compensation.....	1,552,404	—	—	—	1,552,404
Instruction.....	—	876,235	347,318	327,474	1,551,027
Research	—	471,135	216	15	471,366
Academic support.....	—	187,495	102,590	101,448	391,533
Student services.....	—	156,934	111,323	133,491	401,748
Scholarships and fellowships	—	50,410	37,981	53,532	141,923
Public service	—	78,238	7,913	6,000	92,151
Operation and maintenance of plant.....	—	255,825	103,553	82,181	441,559
Institutional support.....	—	271,535	122,749	125,979	520,263
Other operating expenses	—	377,427	3,293	—	380,720
Depreciation	—	261,417	102,460	37,450	401,327
Auxiliary operations	—	313,741	149,413	11,496	474,650
Total operating expenses.....	1,552,404	3,300,392	1,088,809	879,066	6,820,671
Operating income/(loss)	30,351	(831,578)	(333,257)	(389,517)	(1,524,001)
Nonoperating revenues/(expenses):					
Other federal revenues.....	18,095	6,688	—	—	24,783
Other revenues.....	—	398,684	99,584	—	498,268
Other expenses	—	(6,695)	(745)	(12,925)	(20,365)
Investment income/(loss)	23,325	(37,763)	(41,755)	4,640	(51,553)
Total nonoperating revenues/(expenses).....	41,420	360,914	57,084	(8,285)	451,133
Income/(loss) before capital grants and contributions and transfers.....	71,771	(470,664)	(276,173)	(397,802)	(1,072,868)
Capital grants and contributions.....	—	67,437	2,344	90,420	160,201
Transfers, net	—	480,813	254,152	388,766	1,123,731
Total capital grants and contributions and transfers.....	—	548,250	256,496	479,186	1,283,932
Change in net position.....	71,771	77,586	(19,677)	81,384	211,064
Total net position - beginning, as restated.....	1,473,220	2,311,298	598,058	425,256	4,807,832
Total net position - ending	\$ 1,544,991	\$ 2,388,884	\$ 578,381	\$ 506,640	\$ 5,018,896

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

Statement of Cash Flows
Proprietary Funds
Fiscal Year Ended June 30, 2018
(Amounts in thousands)

	Unemployment Compensation Trust Fund	University of Massachusetts	State Universities	Community Colleges	Total
CASH FLOWS FROM OPERATING ACTIVITIES					
Collection of unemployment contributions	\$ 1,451,051	\$ —	\$ —	\$ —	\$ 1,451,051
Tuition, residence, dining and other student fees	—	974,631	425,214	213,046	1,612,891
Research grants and contracts	—	569,408	185,015	247,918	1,002,341
Payments to suppliers	—	(848,595)	(261,761)	(167,326)	(1,277,682)
Payments to employees	—	(2,093,622)	(529,531)	(509,215)	(3,132,368)
Payments to students	—	(50,402)	(28,215)	(53,533)	(132,150)
Payments for unemployment benefits	(1,535,097)	—	—	—	(1,535,097)
Collection of loans to students and employees	—	683	1,390	234	2,307
Income from contract services	—	—	2,235	1,756	3,991
Maintenance costs	—	—	(2,079)	—	(2,079)
Auxiliary enterprise charges	—	416,628	77,478	(765)	493,341
Other receipts	32,376	688,416	18,871	27,074	766,737
Net cash (used in) operating activities	(51,670)	(342,853)	(111,383)	(240,811)	(746,717)
CASH FLOW FROM NON-CAPITAL FINANCING ACTIVITIES					
State appropriations	—	751,894	257,407	276,627	1,285,928
Grants and contracts	18,095	127,087	3,718	3,555	152,455
Student organizations agency transactions	—	1,549	—	58	1,607
Net cash provided by non-capital financing activities	18,095	880,530	261,125	280,240	1,439,990
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES					
Capital appropriations	—	67,437	2,706	16,512	86,655
Purchases of capital assets	—	(487,912)	(60,188)	(41,794)	(589,894)
Proceeds from sales of capital assets	—	—	—	(169)	(169)
Proceeds from debt issuance	—	105,380	27,789	125	133,294
Other capital asset activity	—	8,945	(8,550)	—	395
Principal paid on capital debt and leases	—	(96,325)	(50,120)	(5,024)	(151,469)
Interest paid on capital debt and leases	—	(125,825)	(57,510)	(2,449)	(185,784)
Net cash (used in) capital financing activities	—	(528,300)	(145,873)	(32,799)	(706,972)
CASH FLOWS FROM INVESTING ACTIVITIES					
Proceeds from sales and maturities of investments	—	1,244,020	47,579	69,867	1,361,466
Purchases of investments	—	(1,396,424)	(50,096)	(81,757)	(1,528,277)
Investment earnings	23,325	19,774	10,116	12,107	65,322
Net cash provided by/(used in) investing activities	23,325	(132,630)	7,599	217	(101,489)
Net increase (decrease) in cash and cash equivalents	(10,250)	(123,253)	11,468	6,847	(115,188)
Cash and cash equivalents, restricted cash and cash equivalents at the beginning of the fiscal year, as restated	33,652	553,642	323,095	132,585	1,042,974
Cash and cash equivalents, restricted cash and cash equivalents at the end of the fiscal year	\$ 23,402	\$ 430,389	\$ 334,563	\$ 139,432	\$ 927,786
Reconciliation of net operating revenues and expenses to cash used by operating activities:					
Operating income/(loss)	\$ 30,351	\$ (831,578)	\$ (333,257)	\$ (389,517)	\$ (1,524,001)
Adjustments to reconcile operating income/(loss) to net cash (used in) operating activities:					
Depreciation expense	—	261,417	102,460	37,450	401,327
Fringe benefits paid by the Commonwealth	—	—	82,016	96,363	178,379
Changes in assets and liabilities:					
Accounts receivable, prepaids and other assets	24,288	6,308	72	2,130	32,798
Accounts payable, accrued liabilities and benefits	17,307	41,749	9,649	2,466	71,171
Student deposits and other unearned and deferred revenues	—	67,108	12,478	320	79,906
Other noncurrent assets - restricted and liabilities	(123,616)	112,143	15,199	9,977	13,703
Net cash (used in) by operating activities	\$ (51,670)	\$ (342,853)	\$ (111,383)	\$ (240,811)	\$ (746,717)
Non-cash investing, capital and financing activities:					

The University System had approximately \$73 million of non-cash activities, and the State Universities and Community Colleges had approximately \$145 million and \$191 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, 2018

(Amounts in thousands)

	Post-Employment Benefits and OPEB Trust Funds	External Investment Trust Funds	Private Purpose Trust Funds	Agency Funds
ASSETS				
Cash and cash equivalents	\$ 313,090	\$ 4,147,267	\$ 766	\$ 603,492
Short-term investments	—	39,075	—	—
Net investment in PRIT at fair value	57,434,848	14,362,901	—	—
Investments, restricted investments and annuity contracts	—	—	—	1,490,929
Receivables, net of allowance for uncollectibles:				
Taxes	—	—	—	41,382
Other receivables	122,961	6,054	—	127,101
Other assets	109,974	—	—	—
Total assets	57,980,873	18,555,297	766	\$ 2,262,904
LIABILITIES				
Accounts payable and other accrued liabilities	6,572	36,185	—	\$ 41,530
Due to cities and towns	—	—	—	43,416
Due to federal government	—	—	—	1
Lottery prizes payable	—	—	—	971,434
Agency liabilities	—	—	—	1,206,523
Total liabilities	6,572	36,185	—	\$ 2,262,904
NET POSITION				
Restricted for employees' post-employment benefits	57,974,301	—	—	
Restricted for external investment trust fund participants	—	18,519,112	—	
Restricted for private purposes	—	—	766	
Total net position	\$ 57,974,301	\$ 18,519,112	\$ 766	

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, 2018

(Amounts in thousands)

	Post-Employment Benefits and OPEB Trust Funds	External Investment Trust Funds	Private Purpose Trust Funds
ADDITIONS			
Contribution:			
Employer contributions - Commonwealth.....	\$ 1,383,886	\$ —	\$ —
Non-employer contributions - Commonwealth.....	1,349,967	—	—
Employer contributions - other employers.....	9,564	—	—
Employee contributions.....	1,356,393	—	—
ERIP funding contribution - Commonwealth.....	28,724	—	—
Boston teachers' contribution from Commonwealth.....	131,298	—	—
Other additions.....	218,693	1,192,119	100
Proceeds from sale of units.....	—	25,164,571	—
Total contributions.....	4,478,525	26,356,690	100
Net investment gain/(loss):			
Investment gain/(loss).....	5,391,040	1,627,280	—
Less: investment expense.....	(294,408)	(296,767)	—
Net investment gain/(loss).....	5,096,632	1,330,513	—
Total additions.....	9,575,157	27,687,203	100
DEDUCTIONS			
Administration.....	36,047	—	—
Retirement benefits and refunds.....	5,750,788	995,258	—
Payments to State Boston Retirement System.....	131,298	—	—
Other deductions.....	99,971	—	—
Cost of units redeemed.....	—	24,813,579	—
Distribution to unit holders.....	—	60,030	—
Total deductions.....	6,018,104	25,868,867	—
Change in net position.....	3,557,053	1,818,336	100
Net position - beginning.....	54,417,248	16,700,776	666
Net position - ending.....	\$ 57,974,301	\$ 18,519,112	\$ 766

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
Discretely Presented Component Units
June 30, 2018
(Amounts in thousands)

	Massachusetts Department of Transportation	Commonwealth Health Insurance Connector	Massachusetts Clean Water Trust	Nonmajor Component Units	Total
ASSETS AND DEFERRED OUTFLOWS					
Current assets:					
Cash and cash equivalents	\$ 318,873	\$ 59,938	\$ 478,627	\$ 246,922	\$ 1,104,360
Short-term investments	1,552,366	—	223,467	303,744	2,079,577
Restricted cash and investments	—	—	—	233,976	233,976
Assets held in trust	—	—	26,704	19,449	46,153
Receivables, net of allowance for uncollectibles:					
Federal grants and reimbursement receivable	65,259	—	40,536	—	105,795
Loans	—	—	561,902	72,317	634,219
Other receivables	219,728	11,714	52,323	33,533	317,298
Due from primary government	603,473	16,693	—	46,011	666,177
Inventory	—	—	—	85	85
Other current assets	69,315	273	—	12,491	82,079
Total current assets	2,829,014	88,618	1,383,559	968,528	5,269,719
Noncurrent assets:					
Cash and cash equivalents - restricted	842,080	—	—	27,738	869,818
Long-term investments	—	—	614,802	815,551	1,430,353
Restricted investments and annuity contracts	—	—	—	54,892	54,892
Other receivables, net	22,923	—	—	17,105	40,028
Loans receivables, net	—	—	3,428,689	669,691	4,098,380
Due from primary government	5,600	—	—	—	5,600
Non-depreciable capital assets	12,601,641	—	—	216,126	12,817,767
Depreciable capital assets, net	23,127,244	246	—	910,753	24,038,243
Other noncurrent assets	28,218	—	—	15,085	43,303
Total noncurrent assets	36,627,706	246	4,043,491	2,726,941	43,398,384
Total assets	39,456,720	88,864	5,427,050	3,695,469	48,668,103
Deferred outflows of resources:					
Deferred change in fair value of interest rate swaps	19,721	—	1,841	148	21,710
Deferred loss on refunding	236,205	—	66,715	—	302,920
Deferred outflows related to pension	390,028	—	—	6,900	396,928
Deferred outflows related to OPEB	92,548	—	—	38	92,586
Total deferred outflows of resources	738,502	—	68,556	7,086	814,144
Total assets and deferred outflows	40,195,222	88,864	5,495,606	3,702,555	49,482,247
LIABILITIES AND DEFERRED INFLOWS					
Current liabilities:					
Accounts payable and other liabilities	998,721	18,092	26,818	119,035	1,162,666
Accrued payroll	—	141	—	1,692	1,833
Compensated absences	22,354	506	—	2,524	25,384
Accrued interest payable	157,308	—	53,470	2,217	212,995
Due to primary government	—	—	—	1,947	1,947
Unearned revenue	109,077	39,645	25,982	71,343	246,047
Bonds, notes payable and other obligations	445,313	—	230,280	46,712	722,305
Total current liabilities	1,732,773	58,384	336,550	245,470	2,373,177
Noncurrent liabilities:					
Compensated absences	13,920	—	—	2,003	15,923
Accrued interest payable	198,917	—	—	—	198,917
Due to primary government	—	—	—	7,935	7,935
Unearned revenue	15,298	—	—	562	15,860
Capital leases	58,517	—	—	—	58,517
Bonds, notes payable and other obligations	7,250,463	—	2,702,398	611,407	10,564,268
Net pension liability	1,933,505	—	—	39,704	1,973,209
Net OPEB liability	3,068,095	5,602	—	8,526	3,082,223
Liability for derivative instruments	250,109	—	1,841	—	251,950
Other noncurrent liabilities	130,950	—	—	80,643	211,593
Total noncurrent liabilities	12,919,774	5,602	2,704,239	750,780	16,380,395
Total liabilities	14,652,547	63,986	3,040,789	996,250	18,753,572
Deferred inflows of resources:					
Deferred gain on refundings	179	—	8,679	—	8,858
Deferred service concession arrangements	—	—	—	1,003	1,003
Deferred inflows related to pension	86,946	—	—	3,437	90,383
Deferred inflows related to OPEB	276,767	3,446	—	—	280,213
Total deferred inflows of resources	363,892	3,446	8,679	4,440	380,457
Total liabilities and deferred inflows	15,016,439	67,432	3,049,468	1,000,690	19,134,029
NET POSITION					
Net investment in capital assets	29,256,837	246	—	1,093,474	30,350,557
Restricted for:					
Other purposes	713,192	—	1,964,713	1,109,730	3,787,635
Unrestricted	(4,791,246)	21,186	481,425	498,661	(3,789,974)
Total net position	\$ 25,178,783	\$ 21,432	\$ 2,446,138	\$ 2,701,865	\$ 30,348,218

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

Statement of Revenues, Expenses and Changes in Net Position

Discretely Presented Component Units

Fiscal Year Ended June 30, 2018

(Amounts in thousands)

	Massachusetts Department of Transportation	Commonwealth Health Insurance Connector	Massachusetts Clean Water Trust	Nonmajor Component Units	Total
Operating revenues:					
Charges for services	\$ 1,581,834	\$ 745,791	\$ 5,615	\$ 258,688	\$ 2,591,928
Other	—	266	108,028	84,594	192,888
Total operating revenues	1,581,834	746,057	113,643	343,282	2,784,816
Operating expenses:					
Cost of services	3,503,438	714,551	140,248	279,631	4,637,868
Administration costs	920,857	74,695	2,331	141,024	1,138,907
Depreciation	1,115,952	110	—	76,658	1,192,720
Total operating expenses	5,540,247	789,356	142,579	497,313	6,969,495
Operating income/(loss)	(3,958,413)	(43,299)	(28,936)	(154,031)	(4,184,679)
Nonoperating revenues/(expenses):					
Operating grants	2,204,163	47,316	26,003	54,629	2,332,111
Interest income/(loss)	26,886	530	—	37,506	64,922
Other nonoperating revenue/(expense)	84,329	1,932	—	50,060	136,321
Nonoperating revenues/(expenses), net	2,315,378	49,778	26,003	142,195	2,533,354
Income/(loss) before contributions	(1,643,035)	6,479	(2,933)	(11,836)	(1,651,325)
Capital contributions	2,374,926	—	72,520	46,260	2,493,706
Change in net position	731,891	6,479	69,587	34,424	842,381
Net position - beginning, as restated	24,446,892	14,953	2,376,551	2,667,441	29,505,837
Net position - ending	\$ 25,178,783	\$ 21,432	\$ 2,446,138	\$ 2,701,865	\$ 30,348,218

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



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1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

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 which is 1% of applicable sales tax 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 \$14.363 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 \$4.156 billion at June 30, 2018, 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 the Statewide Financial Reporting and Analysis Team 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 [108-126](#).

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, 2018, 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 FY18 ending fund balances is shown below.

Governmental Fund Balances at June 30, 2018

(amounts in thousands)

	Restricted Purposes	Committed Purposes	Assigned Purposes	Unassigned Purposes	Totals
General Fund					
General Government.....	\$ —	\$ —	\$ —	\$ 1,164,566	\$ 1,164,566
Stabilization Fund.....	—	2,001,299	—	—	2,001,299
FY18 Authorizations Reappropriated in FY19.....	—	—	349,927	—	349,927
Subtotals, General Fund	—	2,001,299	349,927	1,164,566	3,515,792
Lottery Funds					
Lottery Operations.....	—	1,184	—	—	1,184
Subtotals, Lottery Funds	—	1,184	—	—	1,184
Massachusetts School Building Authority (MSBA)					
Debt Service.....	911,511	—	—	—	911,511
Grants to Cities, Towns and Local School Districts.....	56,813	—	435,077	—	491,890
Subtotals, MSB A	968,324	—	435,077	—	1,403,401
Other Governmental Funds					
Restricted by Federal Grantors.....	22,127	—	—	—	22,127
Child Support -- Restricted by Federal Grantors.....	12,046	—	—	—	12,046
Environmental.....	—	14,942	1,000	—	15,942
Regional Greenhouse Gas Auction and Mitigation.....	—	14,409	—	—	14,409
Public Safety -- Enhanced 911 Services.....	—	110,670	—	—	110,670
Public Safety -- Other.....	—	4,224	—	—	4,224
Universal Health Care.....	—	219,097	—	—	219,097
Medical Marijuana.....	—	17,822	—	—	17,822
Other Health Care.....	—	15,512	—	—	15,512
Social Innovation Financing.....	—	10,983	—	—	10,983
Workforce Training.....	—	46,993	—	—	46,993
Department of Industrial Accidents.....	—	21,864	—	—	21,864
Convention Centers.....	8,393	216,275	—	—	224,668
General Government Capital Projects Fund.....	219,561	—	—	—	219,561
Highway Capital Projects Fund.....	—	—	—	(54,537)	(54,537)
General Government Debt Service.....	9,016	—	—	—	9,016
Transportation (GANS*/Commonwealth Transportation Fund).....	19,373	51,777	—	—	71,150
Gaming Administration.....	—	12,519	—	—	12,519
Gaming -- Community Mitigation.....	—	12,674	—	—	12,674
Race Horse Development.....	—	12,517	—	—	12,517
Housing Preservation.....	—	12,912	—	—	12,912
Expendable Trusts.....	245,579	328,813	169,827	—	744,219
Other.....	15,414	175,490	(1)	(49,470)	141,433
Subtotals, Other Governmental Funds	551,509	1,299,493	170,826	(104,007)	1,917,821
Totals	\$ 1,519,833	\$ 3,301,976	\$ 955,830	\$ 1,060,559	\$ 6,838,198

*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 [108](#).

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. During FY18, the settlements and judgments revenue did not reach the five year average threshold and 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 FY18 with a balance of \$2.001 billion. For the fiscal year ending June 30, 2018, the Stabilization Fund’s balance increased by \$15 million from investment income, approximately \$272 thousand in statutorily mandated deposits of withholding taxes on certain Lottery proceeds, \$514 million in above-threshold capital gains tax revenue from the general fund and \$209 million from budgeted funds as part of the FY18 close out and transfer of the consolidated net surplus, off set by \$51 million in transfers to the State Pension Fund and the State Retiree Benefits Trust Fund. 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, 2018, 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, 2018, 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. Massachusetts 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 38.7%, 39.8% 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, 2018, 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 the 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 FY18 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 \$140 million, representing 50% of the

amounts expected to be received during FY18. Also, included as a long-term receivable is approximately \$28 million representing the Commonwealth's share of the Nonparticipating Manufacturer (NPM) adjustment for 2004 tobacco sales which were not contested by the manufacturers.

“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, 2018 were \$86 million, of which \$6 million is due in FY19. During FY18, the MSBA collected \$6 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>	Estimated Useful Life (in years)
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, 2018, the liability for prior grant projects is approximately \$277 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 \$75 million liability associated with Waiting List projects, none of the liability is related to the progress payment method.

Waiting List projects that are not currently recognized as a liability are considered commitments of the MSBA. As of June 30, 2018, the amount of commitments outstanding for the Waiting List project is \$1 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 \$33 million in the governmental funds for reimbursements received, reviewed, and approved for payment by June 30, 2018. Additionally, a liability of \$98 million was recorded for the reimbursements not reviewed or approved for payment prior to June 30, 2018, 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 \$40 million. New Program projects that are not currently recognized as a liability are considered commitments of the MSBA. As of June 30, 2018, the amount of commitments outstanding for the New Program projects is \$1.5 billion, 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, 2018, MSBA had an outstanding liability of \$130 million, and \$1.5 billion 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

30th but paid for after year-end, the largest of which is Medicaid for \$1.758 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, 2018 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 97-98.

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 FY18, approximately \$1.011 billion and \$851 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, 2018, taxes within the Convention Center districts support approximately \$552 million of outstanding principal and approximately \$291 million of interest on debts related to these Convention Centers. Taxes collected in FY18 were approximately \$149 million, while debt service on the bonds was approximately \$54 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 FY18, approximately \$565 million in motor vehicle sales tax revenue was transferred to MassDOT. From the Commonwealth Transportation Fund, \$127 million was dedicated to funding the operations of the MBTA while an additional \$80 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.

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, 2018 (amounts in thousands):

State Universities	\$	12,982
Community Colleges		412
Total	\$	<u>13,394</u>

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

R. RECLASSIFICATIONS

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

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 AND OPEB

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.

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the State Retiree Benefit Trust (SRBT) and additions to/deductions from the SRBT fiduciary net position have been determined on the same basis as

they are reported by the SRBT. For this purpose, benefit payments 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 FY18:

GASB Statement 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. This Statement replaces requirements of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, and specifies the required approach to measuring the OPEB liability of employers for benefits provided through the OPEB plan. This Statement requires employers to record a net OPEB liability measured as the total OPEB liability, as of a determined date, less the amount of the OPEB plan's fiduciary net position. See [Note 10D](#) for further information.

The following details the restatements (amounts in thousands):

	Governmental Activities	Business-Type Activities	Primary Government	Discretely Presented Component Units
Net position/(deficit) as of June 30, 2017, as previously reported.....	\$ (63,387,033)	\$ 6,082,464	\$ (57,304,569)	\$ 31,552,615
Less:				
Implementation of GASB Statement No. 75.....	(8,760,779)	(1,276,918)	(10,037,697)	(2,044,230)
Other.....	—	2,286	2,286	(2,548)
Net position/(deficit) as of July 1, 2017.....	<u>\$ (72,147,812)</u>	<u>\$ 4,807,832</u>	<u>\$ (67,339,980)</u>	<u>\$ 29,505,837</u>

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	\$ 33,937	\$ 852,152 ⁽¹⁾	\$ 886,089	\$ 923,842
MMDT - cash fund	5,172,178	75,634 ⁽¹⁾	5,247,812	4,140,773
Restricted cash with fiscal agent.....	294,857	—	294,857	—
Total	<u>\$ 5,500,972</u>	<u>\$ 927,786</u>	<u>\$ 6,428,758</u>	<u>\$ 5,064,615</u>

(1) of which \$360,101 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, 2018, the amortized cost of annuities was approximately \$118 million. At June 30, 2018, the U.S Treasury Strips have a fair value of approximately \$853 million. Approximately 87.9% of these amounts are held in United States Treasury strips at a custodial bank. No insurance company has an amount of annuities over 5.2% 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, 2018, the MSBA held the following deposits and investments which are a component of Governmental Activities above (amounts in thousands):

Cash and cash equivalents.....	\$	206,192
Restricted cash with fiscal agent.....		74,816
Restricted investments		996,964
Total.....	\$	<u>1,277,972</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, 2018, the bank balances of uninsured deposits totaled approximately \$583 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, 2018, 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 43 days on July 1, 2017 to 28 days on June 30, 2018.

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 2.6 to 2.5 years. At June 30, 2018, investments in the MMDT Short Term Bond Portfolio had a total net position of \$770 million with investment maturities ranging from less than one year to more than ten years. At June 30, 2018, 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.....	6.8%
One to five years	84.5%
Six to ten years.....	5.1%
Greater than ten years	0.0%
Total*	<u>96.4%</u>

*The remaining 3.6% consists of cash equivalents and other assets.

Interest Rate Risk – Higher Education

As of June 30, 2018, the Institutions of Higher Education had debt investments stated at fair value of approximately \$410 million and had investment maturities ranging from less than one year to more than ten years, with approximately 22.7% of the investment's fair values maturing in less than 1 year, approximately 58.4% from one to five years, approximately 9.8% from six to ten years, and approximately 9.1% 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, 2018, the MSBA had approximately \$200 million invested in a collateralized guaranteed investment contract and approximately \$497 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 65% 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, 2018, these investments had a fair value of approximately \$519 million, with investment maturities ranging from less than one year to more than ten years. Of the total fair value, approximately 25.3% has maturities of less than one year, 46.1% from one to five years, 15.9% from six to ten years and 12.7% 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 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, 2018, the Cash Portfolio's securities were all rated as First Tier.

At June 30, 2018, the Short Term Bond Portfolio's follows:

Portfolio Composition	Percentage of Total Net Position
AAA.....	63.0%
AA.....	3.2%
A.....	13.3%
BBB	16.9%
Total*	<u>96.4%</u>

* The remaining 3.6% 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 \$135 million at AAA, approximately \$98 million from AA+ to A- and approximately \$177 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, 2018, 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, 2018, 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 \$520 million, of which approximately \$315 million were in U.S Government securities. Of the remaining \$205 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 \$19.195 billion at fair value with an effective weighted average duration range from 0.18 to 15.31 years at June 30, 2018.

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, 2018.

Credit ratings associated with the Commonwealth's investment in the PRIT Fund ranged from AAA to A- investments with a fair value of approximately \$2.389 billion, BBB+ to B- investments with a fair value of approximately \$2.761 billion, \$633 million rated CCC+ to D, \$7.543 billion are unrated, and the remaining \$6.126 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, 2018 were approximately \$209 million in cash and investments, \$14.362 billion in equities, \$1.560 billion in fixed income investments, \$376 million in portfolio completion strategies, \$1.158 billion in private equity investments and \$286 million in timber investments. An additional \$3.197 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, 2018.

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, 2018, PRIT had open foreign exchange contracts with combined net unrealized gain of approximately \$23 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, 2018 with various expirations from FY19 to FY22. 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, 2018 was approximately \$868 million with a fair value of \$865 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, 2018, PRIT had contracts in effect with an aggregated notional amount of approximately \$7.071 billion to various investment banks that had maturity dates from FY19 to FY64. The contracts have an aggregate fair value gain of approximately \$14 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, 2018 were as follows (amounts in thousands):

Counterparty	Credit Ratings	Interest Rate Swaps		Credit Default Swaps		Total Return and Other Swaps	
		Gross Notional	Fair Value	Gross Notional	Fair Value	Gross Notional	Fair Value
Bank of America NA.....	A+	\$ —	\$ —	\$ 28,171	\$ (4,247)	\$ —	\$ —
Citibank NA	A+	4,085	(51)	6,400	(271)	445,417	(4,433)
CME Group Inc.....	AA-	595,149	7,169	—	—	—	—
Credit Suisse	A	—	—	1,155,603	16,369	—	—
Deutsche Bank AG.....	A	—	—	7,777	42	885,001	(16,277)
Goldman Sachs	A+	—	—	69,560	(3,363)	32,481	(1,059)
LCH Clearnet Ltd	A	1,543,716	11,577	—	—	279,131	(311)
Morgan Stanley.....	A+	—	—	36,661	(9,098)	—	—
SMBC Capital Markets Inc.....	A+	250,000	9,969	—	—	—	—
U.S. Bank National Association.....	A+	500,000	15,828	—	—	—	—
All others.....	Various	173,581	605	480,786	(10,722)	577,651	1,989
Totals.....		<u>\$ 3,066,531</u>	<u>\$ 45,097</u>	<u>\$ 1,784,958</u>	<u>\$ (11,290)</u>	<u>\$ 2,219,681</u>	<u>\$ (20,091)</u>

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, 2018 (amounts in thousands):

<i>Primary government</i>	Total	Level		
		1	2	3
Debt securities:				
US Treasury and agency securities.....	\$ 529,625	\$ 527,978	\$ 1,647	\$ —
Municipal securities	107,411	16,974	90,437	—
Institutional money market funds.....	203,606	199,042	4,564	—
Corporate debt/bonds	80,378	6,370	73,964	44
Corporate stock.....	23,507	23,507	—	—
Asset backed securities.....	17,652	—	17,652	—
Registered investment companies	28,535	27,925	610	—
Mortgage backed securities	12,597	—	12,597	—
Other fixed income	145,780	111,655	34,125	—
Total debt securities.....	1,149,091	913,451	235,596	44
Equity securities	285,984	284,600	—	1,384
Other investments:				
REITS	18,015	18,015	—	—
Investments measured at the Net Asset Value (NAV):				
Commonfund (pooled investment funds).....	210,351			
Private equity.....	15,512			
Private debt.....	19,462			
Private real estate.....	4,762			
Other.....	16,216			
Total investments measured at the NAV.....	266,303			
Other investments at fair value:				
MMDT - bond fund.....	372,967			
Subtotal investments at fair value	2,092,360	\$ 1,216,066	\$ 235,596	\$ 1,428
Other investments:				
Guaranteed investment contracts.....	200,099			
Certificates of deposit.....	12,843			
Other	503,356			
Total other investments.....	716,298			
Total investments - primary government.....	\$ 2,808,658			
Derivative instruments:				
Interest rate swaps (liabilities).....	\$ 182,241	\$ —	\$ 182,241	\$ —

Included in the preceding schedule is approximately \$3 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 \$971 million as of June 30, 2018 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.

<i>Fiduciary funds:</i>	Total	Level		
		1	2	3
Debt securities:				
US Treasury securities.....	\$ 1,194,892	\$ 1,194,892	\$ —	\$ —
Bonds.....	121,871	38,086	83,785	—
Total debt securities.....	1,316,763	1,232,978	83,785	—
Investments measured at the Net Asset Value (NAV):				
Mutual funds.....	56,170			
Other investments at fair value:				
MMDT - bond fund.....	39,075			
Net investment in PRIT.....	71,797,749			
Total other investments at fair value.....	71,836,824			
Subtotal investments at fair value.....	73,209,757	\$ 1,232,978	\$ 83,785	\$ —
Other investments:				
Annuity contacts.....	117,996			
Total investments - fiduciary funds.....	\$ 73,327,753			

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
Governmental Activities:					
Gross receivables.....	\$ 4,962,898	\$ 2,309,569	\$ 101,403	\$ 1,714,782	\$ 9,088,652
Less: allowance for uncollectibles.....	(1,381,844)	(30,773)	—	(1,117,404)	(2,530,021)
Receivables, net allowance for uncollectibles.....	3,581,054	2,278,796	101,403	597,378	6,558,631
Less: current portion.....	(3,345,403)	(2,209,037)	(7,165)	(503,999)	(6,065,604)
Noncurrent receivables.....	\$ 235,651	\$ 69,759	\$ 94,238	\$ 93,379	\$ 493,027
Business-Type activities:					
Gross receivables.....	\$ —	\$ 99,268	\$ 71,492	\$ 1,106,862	\$ 1,277,622
Less: allowance for uncollectibles.....	—	(1,796)	(4,263)	(431,751)	(437,810)
Receivables, net allowance for uncollectibles.....	—	97,472	67,229	675,111	839,812
Less: current portion.....	—	(97,472)	(59,903)	(610,471)	(767,846)
Noncurrent receivables.....	\$ —	\$ —	\$ 7,326	\$ 64,640	\$ 71,966

B. TAX ABATEMENTS

As of June 30, 2018, 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 2018 (amounts in thousands):

Tax abatement program	Total estimated revenue reduced
Economic Development Incentive Program (EDIP).....	\$ 52,170 ⁽¹⁾
Life Sciences Tax Incentive Program.....	19,920 ⁽²⁾
Film Tax Incentive Program:	
Film Tax Credit.....	69,650 ⁽³⁾
Sales Tax Exemption	320 ⁽⁴⁾
Total.....	<u>\$ 142,060</u>

Sources:

(1) Massachusetts Office of Business Development, credits approved in FY2018.

(2) <https://www.mass.gov/news/baker-polito-administration-announces-job-creation-incentives-for-23-massachusetts-life-0>, incentives awarded in FY2018.

(3) Massachusetts Department of Revenue, film tax credits approved during FY2018.

(4) Massachusetts Department of Revenue, FY2019 Tax Expenditure Budget, sales tax exemption approved to motion picture production companies or to accredited film school students during FY2018 (<https://www.mass.gov/doc/2019-tax-expenditure-budget/download> or http://budget.digital.mass.gov/bb/h1/fy19h1/tax_19/items/htax3004.htm).

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
Governmental funds:				
<u>Transfers in:</u>				
Debt service	\$ —	\$ —	\$ 2,480,756	\$ 2,480,756
Transfers in	1,651,451	—	1,582,361	3,233,812
Subtotal	1,651,451	—	4,063,117	5,714,568
<u>Transfers out:</u>				
Appropriations	(1,150,483)	—	(1,396)	(1,151,879)
Transfer of bond proceeds	—	—	(121,669)	(121,669)
Debt service	(1,184,124)	—	(1,296,632)	(2,480,756)
Transfers out	(809,611)	(1,097,398)	(1,176,986)	(3,083,995)
Subtotal	(3,144,218)	(1,097,398)	(2,596,683)	(6,838,299)
Total governmental funds	(1,492,767)	(1,097,398)	1,466,434	(1,123,731)
	University of Massachusetts	State Universities	Community Colleges	Total
<u>Transfers in:</u>				
Transfers in from the General Fund and other governmental funds.....	574,670	285,115	413,764	1,273,549
<u>Transfers out:</u>				
Transfers out to the General Fund	(93,857)	(30,963)	(24,998)	(149,818)
Total proprietary funds	\$ 480,813	\$ 254,152	\$ 388,766	1,123,731
Net transfers in/(out) between funds				\$ —

Due to/from component units on the Statement of Net Position reflects a timing difference for payments of approximately \$104 million at year end.

Remaining receivables and payables between funds as of June 30, 2018 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, 2018. 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, 2018 (amounts in thousands):

Receivable Fund	Payable Fund	Amount
Governmental Funds:		
General	Nonmajor Governmental Funds	\$ 26,651
Non-major Governmental Funds	Nonmajor Governmental Funds	71,734
Total Governmental Funds		\$ 98,385

5. CAPITAL ASSETS

Capital asset activities for the fiscal year ended June 30, 2018 were as follows (amounts in thousands):

<i>Primary Government Governmental Activities</i>	July 1, 2017 Beginning Balance*	Increases	Decreases and Reclassifications	June 30, 2018 Ending Balance
Capital assets not being depreciated:				
Land.....	\$ 894,529	\$ 20,036	\$ —	\$ 914,565
Construction in process	866,377	124,256	(331,171)	659,462
Total capital assets not being depreciated	1,760,906	144,292	(331,171)	1,574,027
Capital assets being depreciated:				
Buildings	5,850,073	108,349	(1,053)	5,957,369
Machinery and equipment	1,460,816	318,054	(20,032)	1,758,838
Infrastructure non - central artery/tunnel project	408,582	497	—	409,079
Total capital assets being depreciated.....	7,719,471	426,900	(21,085)	8,125,286
Less, accumulated depreciation:				
Buildings	(3,256,329)	(117,927)	915	(3,373,341)
Machinery and equipment	(1,172,400)	(106,999)	4,995	(1,274,404)
Infrastructure non - central artery/tunnel project	(258,562)	(9,317)	—	(267,879)
Total accumulated depreciation.....	(4,687,291)	(234,243)	5,910	(4,915,624)
Total capital assets being depreciated, net.....	3,032,180	192,657	(15,175)	3,209,662
Governmental activities capital assets, net.....	4,793,086	336,949	(346,346)	4,783,689
 <i>Business - Type Activities</i>				
Capital assets not being depreciated:				
Land.....	159,050	71,122	(1,063)	229,109
Construction in process	977,929	539,342	(665,152)	852,119
Historical treasures	1,366	98	—	1,464
Total capital assets not being depreciated	1,138,345	610,562	(666,215)	1,082,692
Capital assets being depreciated:				
Buildings	9,832,228	675,609	(1,028)	10,506,809
Machinery and equipment	1,117,204	81,001	(47,779)	1,150,426
Library collections, not including historical treasures	78,493	705	(7,032)	72,166
Total capital assets being depreciated.....	11,027,925	757,315	(55,839)	11,729,401
Less, accumulated depreciation:				
Buildings	(3,759,101)	(336,439)	1,633	(4,093,907)
Machinery and equipment	(857,665)	(64,318)	37,887	(884,096)
Library collections, not including historical treasures	(15,371)	(570)	462	(15,479)
Total accumulated depreciation.....	(4,632,137)	(401,327)	39,982	(4,993,482)
Total capital assets being depreciated, net.....	6,395,788	355,988	(15,857)	6,735,919
Business - type activities capital assets, net	7,534,133	966,550	(682,072)	7,818,611
Total Primary Government capital assets, net.....	\$ 12,327,219	\$ 1,303,499	\$ (1,028,418)	\$ 12,602,300

* - Restated, business-type activities only

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.....	\$ 99,028
Judiciary.....	35,428
Health and human services	23,511
Early elementary and secondary education	3,165
Public safety and homeland security	64,575
Housing and economic development.....	43
Labor and workforce development.....	8,493
	<hr/>
Total depreciation, governmental activities	\$ 234,243
	<hr/> <hr/>
University of Massachusetts	\$ 261,417
State universities	102,460
Community colleges	37,450
	<hr/>
Total depreciation, business-type activities.....	\$ 401,327
	<hr/> <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 three 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, 2017 in three separate \$500 million series which were retired in April, May and June 2018.

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

	<u>July 1, 2017 Beginning Balance</u>	<u>Issued/ Drawn</u>	<u>Redeemed/ Repaid</u>	<u>June 30, 2018 Ending Balance</u>
General Fund:				
Revenue anticipation notes.....	\$ —	\$ 1,500,000	\$ (1,500,000)	\$ —
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>

B. CREDIT FACILITIES

During FY18, the Commonwealth maintained credit facilities to provide liquidity support for commercial paper notes totaling \$400 million. The Commonwealth started FY18 with two credit facilities to provide such liquidity support. One facility with TD Bank (\$200 million) was set to expire in FY18 and was extended to April 18, 2023, while the other facility with State Street Bank (\$200 million) is set to 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 require external liquidity support because bond-holders have the right to tender the bonds back to the Commonwealth at par at any time. As of June 30, 2018, these agreements totaled \$539 million and expire on various dates in FY21 through FY23.

MSBA

During FY18, the MSBA maintained credit facilities to provide liquidity support in the amount of \$450 million for its commercial paper notes. The \$450 million Commercial Paper Notes, Series 2015A, Series 2015B, and Series 2015C were secured by irrevocable letters of credit provided by Bank of America, N.A., Citibank, N.A., and Barclays Bank PLC, respectively, which expired without renewal in March 2018.

7. LONG-TERM OBLIGATIONS

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, 2018, 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 this type 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):

Type of Bond	Amount Outstanding
General obligation bonds, net proceeds.....	\$ 24,840,103
Special obligation bonds (including GANs), net proceeds	4,656,298
Outstanding Commonwealth bonds, net proceeds	29,496,401
MSBA bonds, net proceeds	6,603,285
Total governmental activities, net proceeds	36,099,686
Less:	
Unamortized premiums on general obligation bonds	(1,696,729)
Unamortized premiums on special obligation bonds	(438,853)
Unamortized premiums on MSBA bonds	(612,731)
Total governmental activities, principal	\$ 33,351,373

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, 2018, 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, 2018, (amounts in thousands):

General Obligation Bonds	Principal Outstanding	Percent of Total GO
Fixed rate bonds.....	\$ 20,086,329	86.8%
Variable rate bonds.....	3,057,045	13.2%
Total	\$ 23,143,374	100.0%

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

Variable Rate GO Bonds	Principal Outstanding	Percent of Total GO
Direct purchase bonds	\$ 850,320	3.8%
LIBOR index bonds.....	830,375	3.6%
Variable rate demand bonds.....	539,210	2.3%
Multi-Modal	400,000	1.7%
SIFMA index bonds.....	188,490	0.8%
College opportunity bonds	149,140	0.6%
CPI-index bonds	99,510	0.4%
Total	\$ 3,057,045	13.2%

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

	Principal Outstanding	Percent of Total GO
Hedged variable rate GO bonds	\$ 1,561,350	6.7%
Unhedged variable rate GO bonds ..	1,495,695	6.5%
Total variable rate GO bonds.....	\$ 3,057,045	13.2%

The following is a table of SO bond principal, by rate structure, outstanding as of June 30, 2018, (amounts in thousands):

Special Obligation Bonds	Principal Outstanding	Percent of Total SO
Fixed rate bonds	\$ 4,163,420	98.7%
Variable rate bonds	54,025	1.3%
Total	\$ 4,217,445	100.0%

All of the variable rate special obligation bonds are hedged as of June 30, 2018.

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

Special Obligation Bonds	Amount Outstanding
Special obligation dedicated tax revenue bonds, net proceeds:	
Fixed rate convention center bonds	\$ 553,318
Special obligation revenue bonds, net proceeds:	
Fixed rate gas tax bonds	51,205
CPI variable rate gas tax bonds	54,025
Total gas tax bonds, net proceeds	105,230
Special obligation revenue bonds, net proceeds:	
Accelerated bridge program	1,821,466
Rail enhancement program	1,285,359
Total revenue bonds, net proceeds	3,106,825
Special obligation GANS, net proceeds:	
Federal highway grant anticipation notes and accelerated bridge program	890,925
Total special obligation bonds, net proceeds	4,656,298
Less: unamortized premiums	(438,853)
Outstanding special obligation principal	<u>\$ 4,217,445</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, 2018, the Commonwealth had approximately \$149 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, 2018, approximately 86.8% of the Commonwealth's outstanding GO debt is in the form of fixed-rate bonds. The remaining 13.2% 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, 2018, the Commonwealth had approximately \$539 million in outstanding VRDBs. This accounts for approximately 2.3% of total GO debt and approximately 17.6% of total GO variable-rate debt. All of these bonds are uninsured. As of June 30, 2018, 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. All of these securities were refunded in May 2018 and there are no longer any auction-rate securities outstanding.

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, 2018, the Commonwealth had \$850 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.....	164,700	3/1/2026*	1 Month LIBOR/ Monthly Pay	Bank of America Merrill	5/5/2016	5/31/2019
2001 Series B Refunding Bonds	140,255	1/1/2021	1 Month LIBOR/ Monthly Pay	TD Bank	8/1/2017	1/1/2021
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
2018 Series A Refunding Bonds.....	120,365	2/1/2021	1 Month SIFMA/ Monthly Pay	RBC Capital	1/30/2018	2/1/2021
Total.....	<u>\$ 850,320</u>					

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

The remaining outstanding GO variable-rate debt pays interest to bondholders based on certain indices. For example, as of June 30, 2018, the Commonwealth had approximately \$100 million of bonds that pay interest based on the consumer price index (CPI); \$830 million of bonds that pay interest based on the three-month London Interbank Offered Rate (LIBOR); \$188 million of bonds that pay interest based on the Securities Industry and Financial Markets Association (SIFMA) Index, and \$400 million in Multi-Modal bonds. These bonds make up approximately 0.4%, 3.6%, 0.8% and 1.7% of total outstanding general obligation indebtedness, respectively.

To fund the FY18 capital budget and prior capital spending, the Commonwealth borrowed by issuing \$2.384 billion in long-term bonds, \$1.734 billion of which was general obligation debt, and \$650 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, \$993 million in refunding bonds were issued in five separate transactions. Two of these transactions were executed as current refundings a part of a stated plan of finance for the following purposes of 1) converting the outstanding auction rate securities to fixed rate debt and 2) for 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, 2018, the MSBA had outstanding approximately \$6.603 billion of Dedicated Sales Tax bonds, including approximately \$613 million of unamortized premiums for the purpose of funding school construction and renovation projects. Coupons on the bonds range from approximately 3.0% to 5.715% and each series is payable semiannually

with the latest maturity occurring in FY48. A portion of the interest on the Dedicated Sales Tax Bonds is reimbursed by the federal government. Of the \$5.991 billion of debt outstanding as of June 30, 2018, \$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 FY18, 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 subsidy payments made between October 1, 2017 and September 30, 2018 were reduced by the FY17 sequestration rate of 6.6%. 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 \$1.6 million on the 2009 Series B Bonds, 2010 Series A Bonds and 2011 Series A Bonds in FY 18. The IRS announced that the sequestration rate for the federal fiscal year ending September, 2019 would be 6.2%.

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 FY18, the Commonwealth issued approximately \$65 million in special obligation bonds under the Accelerated Bridge Program (ABP), \$510 million under the Rail Enhancement Program (REP) and \$243 million in refunding bonds. These bonds mature from FY19 to FY48 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, 2018, approximately \$1.681 billion and \$1.131 billion in principal was outstanding on the ABP and REP bonds, respectively, and approximately \$1.192 billion and \$1.019 billion 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, 2018 bonds secured by these pledged funds totaled approximately \$105 million of principal. These bonds mature from FY19 to FY22 and were issued in multiple series. Principal and interest paid during FY18 amounted to approximately \$23 million and \$7 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, 2018, taxes within the Convention Center districts support approximately \$552 million of outstanding principal and approximately \$291 million of interest on debts related to these Convention Centers. Taxes collected in FY18

were approximately \$149 million, while debt service on the bonds was approximately \$54 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, 2017 and 2018. During FY18, the Commonwealth issued approximately \$75 million in GANs for new money needs and \$68 million in refunding bonds under the Commonwealth's Accelerated Bridge Program. As of June 30, 2018, total principal remaining to be paid is approximately \$748 million. Maturities are from FY19 through FY27. Debt service paid during FY18 was approximately \$96 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 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, 2018, the expected interest rate subsidy to be received through final maturity of all of the bonds issued as part of this program totaled \$661 million. The Commonwealth's repayment obligation to bondholders is based on the gross interest rate. From a budgetary perspective, the bonds' debt service is net of the interest-rate subsidy.

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 \$3.111 billion, approximately \$1.615 billion was hedged via floating-to-fixed interest rate swap agreements. Of this amount, \$1.561 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 recorded in 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, 2018, 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 2019 to 2033. The swaps' total notional value of approximately \$1.615 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 3.769% 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, 2018, 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	2018	2017	Change in Fair Value			
<i>General Obligation Bonds:</i>											
Series 2000A.....	\$ 13,492	8/16/2007	8/16/2007	3.942%	SIFMA - 3 basis points	\$ (69)	\$ (529)	\$ 460	8/1/2018*	Merrill Lynch Capital Services	NR/A3/A+
Series 2000A.....	6,583	8/16/2007	8/16/2007	3.942%	SIFMA - 3 basis points	(34)	(257)	223	8/1/2018*	JP Morgan formerly Bear Stearns	A+/Aa3/AA
Series 2001B & C refunding.....	280,510	2/20/2001	2/20/2001	4.150%	Cost of Funds	(10,760)	(22,337)	11,577	1/1/2021	Morgan Stanley Capital Services	NR/WR/-
Series 2006B, Series 2016C.....	281,605	4/2/2009	4/2/2009	4.515%	67% 3-Month LIBOR	(54,556)	(73,386)	18,830	6/15/2033	Barclays Bank PLC	A/A2/A
Series 2006C refunding.....	99,510	1/1/2007	1/1/2007	3.780% - 3.850%	CPI-based formula	(894)	(2,820)	1,926	11/1/2020	Wells Fargo Bank	A+/Aa2/AA-
Series 2007A refunding.....	31,665	10/8/2008	10/8/2008	3.936%	67% 3-Month LIBOR + 0.46%	(1,182)	(2,403)	1,221	11/1/2020	Wells Fargo Bank	A+/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%)	(30,545)	(50,010)	19,465	11/1/2025	Bank of NY Mellon	AA-/Aa2/AA
Series 2015C, 2017A and 2018A refunding	433,855	3/15/2005	3/15/2005	3.769% - 4.004%	SIFMA	(40,094)	(59,902)	19,808	2/1/2028	Wells Fargo Bank	A+/Aa2/AA-
Subtotal	1,561,350					(138,134)	(211,644)	73,510			
<i>Special Obligation Dedicated Tax Revenue Bonds:</i>											
Series 2004 (Convention Ctr).....	—	6/29/2004	6/29/2004	4.450%	CPI-based formula	—	(161)	161	1/1/2018**	Goldman Sachs Capital Markets	A+/A1/A+
Series 2004 (Convention Ctr).....	—	6/29/2004	6/29/2004	4.450%	CPI-based formula	—	(158)	158	1/1/2018**	JP Morgan formerly Bear Stearns	A+/Aa3/AA-
Series 2004 (Convention Ctr).....	—	6/29/2004	6/29/2004	4.450%	CPI-based formula	—	(158)	158	1/1/2018**	JPMorgan Chase Bank	A+/Aa3/AA-
Series 2005A (Gas Tax)	54,025	1/12/2005	1/12/2005	4.937% - 5.059%	CPI-based formula	(1,550)	(2,850)	1,300	6/1/2022	Merrill Lynch Capital Services	NR/A3/A+
Subtotal	54,025					(1,550)	(3,327)	1,777			
Total	\$ 1,615,375					\$ (139,684)	\$ (214,971)	\$ 75,287			

* -Swaps associated with the Series 2000A GO bonds matured and expired on August 1, 2018 and only the fixed rated bonds remain outstanding as of June 30, 2018.

** -Swaps associated with the Convention Center SO bonds matured and expired on January 1, 2018 and were not required to be extended or renewed.

Fair value of the Interest Rate Swap Agreements

The aggregate fair value balance of interest rate swaps at June 30, 2018 was negative \$140 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, 2018 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 FY18, 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, 2017B and 2018A refunding bonds being hedged by the \$434 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, 2018 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, 2018. 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, 2018 are provided below (amounts in thousands):

Fiscal Year Ending June 30	Variable-Rate Bonds		Interest Rate Swaps, Net	Total
	Principal	Interest		
2019	\$ 191,985	\$ 26,277	\$ 37,477	\$ 255,739
2020	248,610	22,782	32,705	304,097
2021	224,780	17,641	27,273	269,694
2022	126,575	14,772	23,188	164,535
2023	142,290	11,814	19,949	174,053
2024 - 2028.....	564,665	23,922	45,635	634,222
2029 - 2033.....	116,470	4,046	9,591	130,107
Total.....	<u>\$ 1,615,375</u>	<u>\$ 121,254</u>	<u>\$ 195,818</u>	<u>\$ 1,932,447</u>

Business - Type Activities – Swapped Debt

The business-type activities have various swaps. At June 30, 2018, the fair value liability of the outstanding interest rate swaps was \$43 million.

Component Unit – Swapped Debt

At June 30, 2018, the majority of interest rate swaps outstanding are held by MassDOT, which in aggregate have a negative fair value of approximately \$250 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, 2018 is as follows (amounts in thousands):

Purpose	Principal Outstanding	Fiscal Year Maturities	Authorized and Unissued
GANs	\$ 748,445	2019 - 2027	\$ —
Capital projects:			
General	12,913,520	2019 - 2048	9,740,076
Highway	12,250,840	2019 - 2048	11,108,801
Local aid.....	895,904	2019 - 2039	11,605
Other.....	552,110	2019 - 2034	—
Subtotal	26,612,374		20,860,482
Subtotal - governmental activities debt (exclusive of MSBA)	27,360,819		\$ 20,860,482
MSBA debt.....	5,990,554		
Governmental activities debt	\$ 33,351,373		

Interest rates on the Commonwealth's outstanding debt at the end of FY18 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, 2018 are as follows (amounts in thousands):

	Governmental Funds (excluding MSBA)	MSBA	Total Governmental Funds Bonded Debt	Authorized and Unissued
Balance July 1, 2017	\$ 26,445,665	\$ 5,828,790	\$ 32,274,455	\$ 22,716,302
Plus: Increases in bonds authorized.....	—	—	—	444,000
General and special obligation bonds:				
Proceeds, defined as principal, plus premium,				
less discount	3,895,061	446,136	4,341,197	(2,299,820)
Less: Premium/discount	(510,383)	(51,136)	(561,519)	—
Less: Principal on refunded bonds	(1,080,105)	(102,001)	(1,182,106)	—
Less: Bonds retired	(1,389,419)	(131,235)	(1,520,654)	—
Outstanding principal June 30, 2018.....	\$ 27,360,819	\$ 5,990,554	\$ 33,351,373	\$ 20,860,482

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, 2018, 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
2019.....	\$ 1,505,922	\$ 1,220,966	\$ 135,560	\$ 289,016	\$ (22,725)	\$ 158,824	\$ 189,880
2020.....	1,475,864	1,164,549	135,452	282,274	(24,213)	165,706	184,159
2021.....	1,479,688	1,092,816	133,373	276,315	(24,213)	171,773	177,811
2022.....	1,413,972	1,024,011	135,532	270,098	(24,213)	165,745	171,299
2023.....	1,237,346	959,649	158,126	264,061	(24,213)	174,316	164,821
2024 - 2028	5,446,117	3,949,086	1,017,516	1,197,970	(112,809)	889,824	722,934
2029 - 2033	4,686,811	2,771,913	1,435,225	875,104	(46,751)	837,419	502,509
2034 - 2038	3,638,119	1,841,774	1,545,005	531,203	(24,171)	820,007	326,913
2039 - 2043	3,920,790	1,008,384	1,019,015	205,170	(2,289)	752,924	140,534
2044 -2048	2,556,190	231,281	275,750	32,050	—	299,548	23,980
2048 - 2052	—	—	—	—	—	2,416	88
Total long - term debt.....	27,360,819	15,264,429	5,990,554	4,223,261	(305,597)	4,438,502	2,604,928
Less: current portion	(1,505,922)	(1,220,966)	(135,560)	(289,016)	22,725	(158,824)	(189,880)
Long - term debt.....	<u>\$ 25,854,897</u>	<u>\$ 14,043,463</u>	<u>\$ 5,854,994</u>	<u>\$ 3,934,245</u>	<u>\$ (282,872)</u>	<u>\$ 4,279,678</u>	<u>\$ 2,415,048</u>

(1) FY19 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 had \$450 million of outstanding Commercial Paper for the funding of school construction and renovation projects on July 1, 2017. The Commercial Paper matured at various dates ranging from 12 to 154 days and interest is payable at maturity. The interest rate on this issuance of commercial paper ranged from 0.77% to 1.40%. The final maturity of commercial paper occurred on March 9, 2018, at which time the commercial paper program was closed. Proceeds of the MSBA 2018 Series A Bonds were used to retire the Commercial Paper program.

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, 2018, approximately \$2.696 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, 2018, approximately \$210 million and \$245 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 FY18 was approximately \$22.875 billion. Outstanding debt subject to the limit at June 30, 2018 was approximately \$21.452 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, 2018.....	\$ 27,360,819
Less amounts excluded:	
Central artery project bonds.....	(1,092,519)
Accelerated bridge program.....	(2,429,000)
MBTA forward funding	(207)
SMART bonds	(598,985)
Convention center bonds.....	(552,110)
Special obligation gas tax bonds.....	(105,230)
Rail enhancement program bonds.....	(1,131,105)
Outstanding direct debt June 30, 2018.....	<u>\$ 21,451,663</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 growth in annual bond issuance (the "bond cap") to not more than \$125 million through fiscal 2019. 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 2018
Bond cap as approved by the Governor	\$ 2,260,000
Total annual debt service obligations.....	3,040,833
Statutory basis budgeted fund revenues.....	45,036,235
Debt service as % of budgeted revenues.....	6.8%

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	\$ 604,312	\$ 605,328	\$ (604,312)	\$ 605,328	\$ 417,490
Claims and judgments	12,518	22,700	(12,720)	22,498	12,498
Prizes payable	1,062,350	59,008	(149,924)	971,434	—
School construction grants payable	679,490	352,498	(550,332)	481,656	219,505
Environmental remediation liability	533,060	2,424	(4,873)	530,611	6,152
Lottery instant grand prizes	22,249	—	(19,661)	2,588	—
Workers' compensation	260,180	61,678	(60,954)	260,904	38,092
Arbitrage rebate - MSBA	1,994	465	—	2,459	—
Group insurance claims	116,504	1,648,074	(1,633,842)	130,736	128,697
Cost of living adjustment	146,300	—	(14,300)	132,000	—
Net pension liability	36,941,865	4,092,400	(4,309,962)	36,724,303	—
Net OPEB liability	16,725,973	926,598	(2,362,967)	15,289,604	—
Total other long-term obligations	57,106,795	7,771,173	(9,723,847)	55,154,121	822,434
Liability for derivative instruments	214,971	139,684	(214,971)	139,684	—
Bonded Debt:					
Bonds and notes payable - non MSBA	26,445,665	3,384,678	(2,469,524)	27,360,819	1,505,922
Unamortized bond and note premiums - non MSBA	1,770,985	510,384	(145,787)	2,135,582	68,492
MSBA Bonds and notes payable excluding premium	5,828,790	395,000	(233,236)	5,990,554	135,560
Unamortized bond and note premiums - MSBA	622,492	51,136	(60,897)	612,731	48,494
MSBA other liabilities	450,541	1,487,968	(1,937,907)	602	351
Other financing arrangements:					
Capital leases	30,856	228	(8,592)	22,492	3,272
Total bonded debt and other financing arrangements	35,149,329	5,829,394	(4,855,943)	36,122,780	1,762,091
Long-term liabilities, governmental activities	\$ 92,471,095	\$ 13,740,251	\$ (14,794,761)	\$ 91,416,585	\$ 2,584,525

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	\$ 216,800	\$ 105,391	\$ (110,624)	\$ 211,567	\$ 144,501
Net pension liability	738,167	100,931	(122,448)	716,650	—
Net OPEB liability	1,312,082	283,768	(204,004)	1,391,846	—
Total other long-term obligations	2,267,049	490,090	(437,076)	2,320,063	144,501
Liability for derivative instruments	63,143	—	(20,586)	42,557	—
Bonded Debt:					
Bonds and notes payable, including MSCBA	4,529,353	148,666	(239,517)	4,438,502	158,824
Other financing arrangements:					
Capital leases	8,979	4,458	(3,612)	9,825	2,180
Total bonded debt and other financing arrangements	4,538,332	153,124	(243,129)	4,448,327	161,004
Long-term liabilities, business - type activities	\$ 6,868,524	\$ 643,214	\$ (700,791)	\$ 6,810,947	\$ 305,505

*as restated and more fully described in footnote 1

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, 2018, net of unamortized discounts and premiums, compensated absences, net pension and net OPEB liabilities are as follows (amounts in thousands):

	Interest Rates	Maturities	Beginning Balance*	Increases	Decreases	Ending Balance	Due Within One Year	Long Term
Major component units:								
MassDOT	0.000 - 7.000%	2019 - 2046	\$ 7,558,198	\$ 709,777	\$ (572,199)	\$ 7,695,776	\$ 445,313	\$ 7,250,463
MCWT	1.000 - 6.375%	2019 - 2043	3,316,209	—	(383,531)	2,932,678	230,280	2,702,398
Nonmajor component units ..	1.000 - 6.500%	2019 - 2038	707,402	134,008	(183,291)	658,119	46,712	611,407
Total bonds and notes payable			11,581,809	843,785	(1,139,021)	11,286,573	722,305	10,564,268
Compensated absences, net			41,519	2,451	(2,663)	41,307	25,384	15,923
Net pension liability			2,001,910	440,876	(469,577)	1,973,209	—	1,973,209
Net OPEB liability			3,231,180	205,507	(354,464)	3,082,223	—	3,082,223
Total long term liabilities			\$ 16,856,418	\$ 1,492,619	\$ (1,965,725)	\$ 16,383,312	\$ 747,689	\$ 15,635,623

*as restated and more fully described in footnote 1

The net pension liability of the discretely presented component units of \$1.973 billion includes \$1.364 billion related to the MBTA and RTAs and \$609 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 [108-119](#) 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, 2018. 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:	
Community Preservation Trust Fund.....	\$ (1,964)
Health Information Technology Trust Fund	(2,406)
Government Land Bank Fund	(35,033)
Highway Capital Projects Fund	(54,537)
Other Capital Project Funds:	
Federal Highway Construction Program Capital Projects Fund ...	(10,067)

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 pension 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 pension 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 pension 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, 2018, 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	63,194	66,078
Terminated employees entitled to benefits but not yet receiving them.....	4,424	—
Subtotal	67,618	66,078
Current members.....	87,822	93,119
Total.....	<u>155,440</u>	<u>159,197</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, 2018:

Asset Class	Target Allocation
Global Equity.....	39.0%
Portfolio Completion Strategies	13.0%
Core Fixed Income	12.0%
Private Equity	12.0%
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 2018 was 9.58% for both SERS and 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, 2018 are as follows (amounts in thousands):

	SERS	MTRS
Total pension liability.....	\$ 41,225,000	\$ 52,503,000
Plan fiduciary net position.....	(27,995,021)	(28,791,711)
Net pension liability	<u>\$ 13,229,979</u>	<u>\$ 23,711,289</u>
Fiduciary net position as a percentage of the total pension liability	67.9%	54.8%

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, 2018 rolled forward to June 30, 2018, using the following actuarial assumptions:

1. The actuarial assumptions included: (a) 7.35% investment rate of return, a decrease in the rate used in the January 1, 2017 actuarial valuation of 7.50%; (b) 3.5% interest rate credited to the annuity savings fund; and (c) 3.0% cost of living increase on the first \$13,000 of allowance 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 reflects RP-2014 Blue Collar Healthy Annuitant table projected generationally with Scale MP-2016, set forward 1 year.
 - 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, 2018 (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%
Real Estate	3.8%
Value Added Fixed Income.....	3.8%
Portfolio Completion Strategies.....	3.7%
Timberland/Natural Resources	3.4%
Core Fixed Income.....	0.9%

Discount rate. The discount rate used to measure the pension liability for SERS and MTRS was 7.35%. 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 7.35%, 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 (6.35%) or 1-percentage-point higher (8.35%) than the current rate (amounts in thousands):

	1% Decrease (6.35%)	Current Discount Rate (7.35%)	1% Increase (8.35%)
SERS net pension liability.....	\$ 17,831,800	\$ 13,229,979	\$ 9,297,900
MTRS net pension liability	29,482,300	23,711,289	18,771,300

D. NET PENSION LIABILITY OF THE COMMONWEALTH 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 \$12.825 billion, \$22.885 billion, and \$4.020 billion, respectively. The net pension liabilities for SERS and MTRS were determined by an actuarial valuation as of January 1, 2017 and rolled forward to June 30, 2017. The BRS net pension liability was determined by an actuarial valuation as of January 1, 2016 and rolled forward to December 31, 2017. 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, 2017	94.5%	\$ 12,122,363
Massachusetts Teachers' Retirement System.....	June 30, 2017	100.0%	22,885,391
Boston Retirement System - Teachers	December 31, 2017	60.5%	2,433,199
Total net pension liability			<u>\$ 37,440,953</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, 2017	4.7%	<u>\$ 608,980</u>

Pension Expense and Deferred Outflows and Inflows of Resources Related to Pension

As of the measurement dates, the Commonwealth (primary government) recognized pension expense of approximately \$4.160 billion and the discretely presented component units recognized approximately \$267 million of pension expense. The following details the components of deferred outflows of resources and deferred inflows of resources related to pensions (amounts in thousands):

	Primary Government						Discretely Presented Component Units	
	SERS		MTRS		BRS-Teachers		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	\$ 1,261,517	\$ —	\$ 2,613,180	\$ —	\$ 259,883	\$ —	\$ 170,928	\$ 5,046
Changes in proportion.....	192,629	149,390	—	—	—	—	5,614	46,475
Net difference between projected and actual earnings on pension plan investments ...	—	144,438		145,918	—	62,895	—	13,811
Differences between expected and actual experience.....	468,702	329,819	118,426	50,146	—	94,199	150,304	25,051
Payments made after the measurement date.....	856,975	—	1,314,783	—	—	—	70,082	—
Totals.....	<u>\$ 2,779,823</u>	<u>\$ 623,647</u>	<u>\$ 4,046,389</u>	<u>\$ 196,064</u>	<u>\$ 259,883</u>	<u>\$ 157,094</u>	<u>\$ 396,928</u>	<u>\$ 90,383</u>

The \$2.172 billion and \$70 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- Teachers	
2019.....	\$ 408,990	\$ 567,232	\$ 43,974	\$ 83,030
2020.....	760,309	965,896	42,474	101,193
2021.....	334,928	734,756	7,962	46,150
2022.....	(204,976)	33,327	(21,576)	7,151
2023.....	(50)	194,878	29,955	(807)
Thereafter	—	39,453	—	(254)
Totals	<u>\$ 1,299,201</u>	<u>\$ 2,535,542</u>	<u>\$ 102,789</u>	<u>\$ 236,463</u>

The SERS and MTRS total pension liabilities were based on 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) 7.5% 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. 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

4. Mortality rates were as follows:

SERS:

- Pre-retirement - reflects RP-2014 Blue Collar Employees Table projected generationally with Scale MP-2016 and set forward 1 year for females
- Post-retirement - reflects RP-2014 Blue Collar Healthy Annuitant Table projected generationally with Scale MP-2016 set forward 1 year for females
- 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 White Collar Employees Table projected generationally with Scale MP-2016 (gender distinct).
- Post-retirement - reflects RP-2014 White Collar Healthy Annuitant Table projected generationally with Scale MP-2016 (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, 2017, using the following actuarial assumptions:

1. The actuarial assumptions included (a) 7.35% investment rate of return, (b) 3.25% interest rate credited to the annuity savings fund and (c) 3.0% cost of living increase on the first \$14,000 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 White Collar Employee and Healthy Annuitant Mortality Tables projected generationally with Scale MP-2016.
 - 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, 2017:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return*
Global Equity	40.0%	5.0%
Portfolio Completion Strategies.....	13.0%	3.6%
Core Fixed Income.....	12.0%	1.1%
Private Equity.....	11.0%	6.6%
Value Added Fixed Income.....	10.0%	3.8%
Real Estate	10.0%	3.6%
Timber/Natural Resources	4.0%	3.2%
Hedge Funds	—%	3.6%
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, 2017 measurement date for those plans. The discount rate used to measure the pension liability of BRS-Teachers was 7.35% as of its December 31, 2017 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 the Commonwealth calculated using the discount rate of 7.5% (SERS and MTRS) and 7.35% (BRS-Teachers), as well as what the Commonwealth's net pension liability would be if it were calculated

using a discount rate that is 1-percentage-point lower (6.5% SERS and MTRS; 6.35% BRS-Teachers) or 1-percentage-point higher (8.5% SERS and MTRS; 8.35% BRS-Teachers) than the current rate (amounts in thousands):

	1% Decrease (6.5%)	Current Discount Rate (7.5%)	1% Increase (8.5%)
SERS net pension liability.....	\$ 16,506,126	\$ 12,122,363	\$ 8,585,798
MTRS net pension liability	28,424,300	22,885,391	18,193,400

	1% Decrease (6.35%)	Current Discount Rate (7.35%)	1% Increase (8.35%)
BRS-Teachers net pension liability	\$ 2,913,172	\$ 2,433,199	\$ 2,035,136

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, 2018, (amounts in thousands):

	Pension Trust Funds		
	State Employees' PERS	Teachers' PERS	Total
ASSETS			
Cash and cash equivalents.....	\$ 103,761	\$ 109,801	\$ 213,562
Net investment in PRIT at fair value.....	27,758,610	28,588,059	56,346,669
Other receivables.....	27,645	95,316	122,961
Other assets.....	105,459	4,515	109,974
Total assets.....	27,995,475	28,797,691	56,793,166
LIABILITIES			
Accounts payable.....	454	5,980	6,434
Net position available for post-employment benefits.....	\$ 27,995,021	\$ 28,791,711	\$ 56,786,732
ADDITIONS			
Contributions:			
Employer contributions - Commonwealth and MassDOT.....	\$ 840,990	\$ —	\$ 840,990
Non-employer contributions - Commonwealth.....	35,184	1,314,783	1,349,967
Employer and non-employer contributions - other.....	9,564	—	9,564
Employee contributions.....	600,705	755,688	1,356,393
ERIP funding contribution - Commonwealth.....	28,724	—	28,724
Boston teachers' contributions from Commonwealth.....	—	131,298	131,298
Other additions.....	118,124	100,436	218,560
Total contributions.....	1,633,291	2,302,205	3,935,496
Net investment gain/(loss):			
Investment gain/(loss).....	2,602,831	2,689,173	5,292,004
Less: investment expense.....	(142,083)	(146,597)	(288,680)
Net investment gain/(loss).....	2,460,748	2,542,576	5,003,324
Total additions.....	4,094,039	4,844,781	8,938,820
DEDUCTIONS			
Administration.....	16,369	19,528	35,897
Retirement benefits and refunds.....	2,314,447	2,992,578	5,307,025
Payments to State Boston Retirement System.....	—	131,298	131,298
Other deductions.....	50,434	48,275	98,709
Total deductions.....	2,381,250	3,191,679	5,572,929
Change in net position.....	1,712,789	1,653,102	3,365,891
Net position available for post-employment benefits			
at beginning of year.....	26,282,232	27,138,609	53,420,841
Net position available for post-employment benefits at end of year.....	\$ 27,995,021	\$ 28,791,711	\$ 56,786,732

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, 2018 were as follows (amounts in thousands):

	SERS	MTRS	Purpose
Annuity Savings Fund	\$ 6,395,615	\$ 7,956,804	Active members' contribution balance
Annuity Reserve Fund	1,940,275	2,102,435	Retired members' contribution account
Special Military Service Fund ...	34	246	Members' contribution account while on military leave
Pension Reserve Fund	19,659,097	18,732,226	Amounts appropriated to fund future retirement benefits
Total	<u>\$ 27,995,021</u>	<u>\$ 28,791,711</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).

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, 2018 the date of the most recent actuarial valuation, plan membership consisted of the following:

	SRBT
Inactive plan members or beneficiaries currently receiving benefit payments	82,982
Inactive plan members entitled to but not yet receiving benefit payments	3,142
Active plan members	70,711
Total	<u>156,835</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, 2018 and as of the valuation date (January 1, 2018), 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 FY18 totaled approximately \$444 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 FY18, 30% of tobacco settlement proceeds or approximately \$73 million was allocated to the SRBT. The percentage of proceeds to be transferred to the SRBT in FY18 was set at 30%, 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, 2018, 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 2018 was 9.46%. 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 OF THE OPEB PLAN REQUIRED BY GASB 74

The components of the net OPEB liability at June 30, 2018 are as follows (amounts in thousands):

	SRBT
Total OPEB liability.....	\$ 16,096,773
Plan fiduciary net position	(1,187,569)
Net OPEB liability	<u>\$ 14,909,204</u>
Fiduciary net position as a percentage of the total OPEB liability	7.4%

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, 2018 rolled forward to June 30, 2018, using the following actuarial assumptions:

1. The following annual healthcare cost trend rates: (1) 8.0%, decreasing by 0.5% each year to 5.50% in 2023 and then decreasing by 0.25% each year to an ultimate rate of 5.0% in 2025 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 3.95%. This rate was based on a blend of the Bond Buyer Index rate (3.87%) 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 2025. Therefore, the long-term expected rate of return on plan investments of 7.35% per annum was not applied to all periods of projected benefit payments to determine the total OPEB liability as of June 30, 2018.

Sensitivity of the net OPEB liability to changes in the discount rate. The following presents the OPEB plan's net OPEB liability calculated using the discount rate of 3.95%, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (2.95%) or 1-percentage-point higher (4.95%) than the current rate (amounts in thousands):

	1% Decrease (2.95%)	Current Discount Rate (3.95%)	1% Increase (4.95%)
Net OPEB liability	\$ 17,605,200	\$ 14,909,204	\$ 12,753,800

Sensitivity of the net OPEB liability to changes in the healthcare cost trend rates. The following presents the OPEB plan's net OPEB liability, 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)
Net OPEB liability	\$ 12,386,900	\$ 14,909,204	\$ 18,201,800

a - The current healthcare cost trend rates are as follows: 8.0% 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: 7.0% 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: 9.0% for Medicare, 6.0% for EGWP and 6.0% for administration costs.

D. NET OPEB LIABILITY OF THE COMMONWEALTH REQUIRED BY GASB 75

During fiscal 2018, the Commonwealth implemented GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which determines how employers and nonemployer contributing entities report their OPEB liabilities on their financial statements.

Net OPEB Liability

The Commonwealth's net OPEB liability was measured as of June 30, 2017 and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of January 1, 2017 rolled forward to June 30, 2017.

The Commonwealth's reporting entity reported the following net OPEB liability (amounts in thousands):

	Net OPEB Liability
Primary government	\$ 16,681,450
Discretely presented component unit	3,082,223 (A)
Total net OPEB liability	<u>\$ 19,763,673</u>

(A) - Of this amount \$2,279,171 relates to discretely presented component units not participating in the Commonwealth's OPEB plan.

OPEB Expense and Deferred Outflows and Inflows of Resources Related to OPEB

As of June 30, 2017, the measurement date, the Commonwealth (primary government) and the discretely presented component units recognized OPEB expense of approximately \$1.009 billion and \$160 million, respectively. The following details the components of deferred outflows of resources and deferred inflows of resources related to OPEB (amounts in thousands):

	Primary Government		Discretely Presented Component Unit	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Change in proportion	\$ 201,564	\$ 162,744	\$ —	\$ 38,821
Differences between expected and actual experience.....	—	38,634	968	2,654
Change of assumptions	—	1,889,734	—	237,273
Net difference between projected and actual earnings on OPEB plan investments.....	—	30,474	38	1,465
Payments made after the measurement date	520,703	—	91,580	—
Totals	<u>\$ 722,267</u>	<u>\$ 2,121,586</u>	<u>\$ 92,586</u>	<u>\$ 280,213</u>

The \$521 million and \$92 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 OPEB liability in the next fiscal year. Other amounts reported above as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows (amounts in thousands):

	Primary Government	Discretely Presented Component Unit
2019	\$ (402,373)	\$ (56,374)
2020	(402,373)	(56,373)
2021	(402,373)	(56,374)
2022	(402,373)	(56,373)
2023	(310,234)	(50,245)
Thereafter.....	(296)	(3,468)
Total	<u>\$ (1,920,022)</u>	<u>\$ (279,207)</u>

Actuarial Assumptions

The total OPEB liability based on the actuarial valuation as of January 1, 2017 rolled forward to June 30, 2017 used 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 Employee Group Waiver Program (EGWP) and (3) 5.0% for administration costs.
2. The mortality rate was in accordance with RP2014 Blue Collar Mortality Table projected with scale MP-2016 from the central year, with females set forward one year.
3. Participation rates:
 - a. 100% of all retirees who currently have health care coverage will continue with the same coverage, except that retirees under age 65 with POS/PPO coverage switch to Indemnity at age 65 and those over age 65 with POS/PPO coverage switch to HMO.
 - b. All current retirees, other than those indicated on the census data as not being eligible by Medicare, have Medicare coverage upon attainment of age 65, as do their spouses. All future retirees are assumed to have Medicare coverage upon attainment of age 65.
 - c. 80% of current and future contingent eligible participants will elect health care benefits at age 65, or current age if later.
 - d. Actives, upon retirement, take coverage, and are assumed to have the following coverage:

	Retirement Age	
	Under 65	Age 65+
Indemnity	40.0%	85.0%
POS/PPO.....	50.0%	—%
HMO	10.0%	15.0%

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.

Investments

Investment assets of the Plan are held by the Pension Reserves Investment Trust (PRIT) Fund. The long-term expected rate of return on OPEB Plan investments was determined using a building-block method in which best-estimate ranges of expected future rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future rates of return by the target asset allocation percentage. 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 are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity.....	40.0%	5.0%
Portfolio Completion Strategies	13.0%	3.6%
Core Fixed Income	12.0%	1.1%
Private Equity	11.0%	6.6%
Value Added Fixed Income.....	10.0%	3.8%
Real Estate	10.0%	3.6%
Timber/Natural Resources	4.0%	3.2%
Hedge Funds	—%	3.6%
	100.0%	

Changes in Net OPEB liability

The following presents the changes in the net OPEB liability of the Commonwealth as of June 30, 2017 (amounts in thousands):

	Increase/(Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances at June 30, 2016.....	\$ 19,821,600	\$ 866,043	\$ 18,955,557
Changes for the year:			
Service cost.....	950,800	—	950,800
Interest	591,900	—	591,900
Differences between expected and actual experience	(48,600)	—	(48,600)
Changes of assumptions	(2,393,700)	—	(2,393,700)
Contributions-employer.....	—	466,233	(466,233)
Net investment income	—	105,822	(105,822)
Benefit payments	(441,064)	(441,064)	—
Administrative expense	—	(627)	627
Net changes.....	(1,340,664)	130,364	(1,471,028)
Balances at June 30, 2017.....	\$ 18,480,936	\$ 996,407	\$ 17,484,529

Sensitivity Analysis 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, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate (amounts in thousands):

	1% Decrease 2.63%	Current Rate 3.63%	1% Increase 4.63%
Net OPEB liability	\$ 19,802,213	\$ 16,681,450	\$ 14,200,196

Sensitivity Analysis of the net OPEB liability to changes in the healthcare cost trend rate

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 Rate (a)	1% Increase (c)
Net OPEB liability	\$ 13,801,776	\$ 16,681,450	\$ 20,470,921

a - The current healthcare cost trend rates are as follows: 9.0% for medical and 5.0% for EGWP and administration costs

b - The healthcare cost trend rates after a 1% decrease are as follows: 8.0% for medical and 4.0% for EGWP and administration costs

c - The healthcare cost trend rates after a 1% increase are as follows: 10.0% for medical and 6.0% for EGWP and administration costs

MSBA

The MSBA, a blended component unit, sponsors its own single-employer defined benefit OPEB plan. The disclosures related to the net OPEB liability of the MSBA are not included in these notes to the financial statements due to immateriality (approximately \$3 million).

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, 2018 (amounts in thousands):

	OPEB Trust Fund
	State Retiree Benefits
ASSETS	
Cash and cash equivalents	\$ 99,528
Net investment in PRIT at fair value	1,088,179
Total assets	1,187,707
LIABILITIES	
Accounts payable	138
Net position available for other post-employment benefits	\$ 1,187,569
 ADDITIONS	
Contributions:	
Employer contributions - Commonwealth	\$ 542,896
Other additions	133
Total contributions	543,029
Net investment gain/(loss):	
Investment gain/(loss)	99,036
Less: investment expense	(5,728)
Net investment gain/(loss)	93,308
Total additions	636,337
DEDUCTIONS	
Administration	150
Retirement benefits and refunds	443,763
Other deductions	1,262
Total deductions	445,175
Change in net position	191,162
Net position available for other post-employment benefits at beginning of year	996,407
Net position available for other post-employment benefits at end of year	\$ 1,187,569

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 FY18, these additions are approximately \$228 thousand. 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, 2018 (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	
2019.....	\$ 3,272	\$ 671	\$ 34,428	\$ 1,068	\$ 39,439	\$ 2,180	\$ 294	\$ 97,617	\$ 100,091
2020.....	3,069	630	10,796	1,092	15,587	2,037	252	48,145	50,434
2021.....	3,032	622	6,277	1,117	11,048	1,578	211	36,923	38,712
2022.....	3,009	617	4,702	1,141	9,469	1,314	168	31,888	33,370
2023.....	2,952	605	3,798	4,812	12,167	585	132	24,159	24,876
2024 - 2028.....	7,114	1,460	15,548	—	24,122	2,131	225	152,034	154,390
2029 - 2033.....	44	9	—	—	53	—	—	5,006	5,006
2034 - 2038.....	—	—	—	—	—	—	—	5,324	5,324
2039 - 2043.....	—	—	—	—	—	—	—	3,873	3,873
Total lease obligations.....	22,492	4,614	75,549	9,230	111,885	9,825	1,282	404,969	416,076
Less: current portion.....	(3,272)	(671)	(34,428)	(1,068)	(39,439)	(2,180)	(294)	(97,617)	(100,091)
Long-term lease obligations.....	<u>\$ 19,220</u>	<u>\$ 3,943</u>	<u>\$ 41,121</u>	<u>\$ 8,162</u>	<u>\$ 72,446</u>	<u>\$ 7,645</u>	<u>\$ 988</u>	<u>\$ 307,352</u>	<u>\$ 315,985</u>

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

Asset type:	Primary Government	
	Governmental Activities	Business - Type Activities
Buildings	\$ —	\$ 11,376
Machinery and equipment	22,506	13,353
Total assets	22,506	24,729
Less: accumulated depreciation	(13,902)	(13,976)
Total.....	<u>\$ 8,604</u>	<u>\$ 10,753</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, 2018 is estimated to be \$261 million of which approximately \$38 million is expected

to be paid during FY19.

Changes in the Commonwealth's liability relating to workers' compensation claims in FY18 and FY17 were (amounts in thousands):

	FY18	FY17
Claims liability, beginning of year.....	\$ 260,180	\$ 270,720
Increase in liability estimate	61,678	47,556
Payments and decreases in liability estimate.....	(60,954)	(58,096)
Claims liability, end of year.....	<u>\$ 260,904</u>	<u>\$ 260,180</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 FY18 and FY17 were (amounts in thousands):

	FY18	FY17
Claims liability, beginning of year.....	\$ 116,504	\$ 110,925
Increase in liability estimate	1,648,074	1,667,920
Payments and decreases in liability estimate.....	(1,633,842)	(1,662,341)
Claims liability, end of year.....	<u>\$ 130,736</u>	<u>\$ 116,504</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.

The following amounts were recognized for claims and judgments in FY18 and FY17 (amounts in thousands):

	FY18	FY17
Unpaid claims, beginning of year.....	\$ 12,518	\$ 11,411
Incurred claims	22,700	12,929
Claim payments and reductions.....	(12,720)	(11,822)
Unpaid claims end of year	<u>\$ 22,498</u>	<u>\$ 12,518</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 environmental remediation (amounts in thousands):

	Governmental Activities
Environmental remediation liability, beginning of year.....	\$ 533,060
Expected additional future outlays, changes in liability estimates.....	2,424
FY18 outlays for environmental remediation	(4,873)
Environmental remediation liability, end of year	<u>\$ 530,611</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 \$14 million for COLAs granted to participants in retirement systems of cities, towns and counties were made during fiscal year 2018.

As of June 30, 2018, the Commonwealth's liability for COLA was approximately \$132 million.

13. CONTINGENCIES/COMMITMENTS

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 FY18 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, 2018, totaling approximately \$180 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, 2018, the University of Massachusetts Building Authority has approximately \$2.967 billion, of outstanding debt, of which approximately \$114 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 FY18, the Commonwealth received approximately \$243 million, or 68.8% of the estimated amounts shown in the MSA. Amounts received in FY18 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, 2018, 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, 2018, the Commonwealth had commitments of approximately \$537 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, 2018 to be \$1 million and \$1.5 billion, 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, 2018

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 (MSERS) and the Massachusetts Teachers' Retirement System (MTRS) (collectively referred to as the Retirement Systems), in conjunction with the Commonwealth, are evaluating whether certain of the statutes or practices governing the systems may have been in conflict with the exclusive benefit rule of Section 401(a)(2) of the Internal Revenue Code or other federal tax law requirements relating to operation of tax-exempt pension plans.

The activities being reviewed include (i) the statutorily directed funding of the budget for the Public Employees' Retirement Administration Commission (PERAC) solely from the investment income accounts of MSERS and MTRS, (ii) the statutorily directed contributions made from the MSERS account in the PRIT Fund to a separate optional retirement plan available to certain employees of the Commonwealth's higher education system, (iii) the statutorily mandated reimbursements paid by the MSERS to local retirement systems for local cost-of-living allowances for certain participants of those systems, (iv) the deposit of reimbursement revenues received from local retirement systems to the Commonwealth's General Fund rather than to the MTRS and MSERS accounts in the PRIT Fund, and (v) the deposit of federal grant fringe payments to the General Fund rather than to the MTRS and MSERS accounts in the PRIT Fund.

The Commonwealth, PERAC, MSERS and the MTRS have each engaged outside tax counsel to review these activities.

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 and the MSERS and MTRS have submitted to the Internal Revenue Service for its consideration a request for a closing agreement which 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 MSERS and MTRS in light of the corrections already made.

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

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, 2018 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 Massachusetts School Building Authority (MSBA)

*The University of Massachusetts System

*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

*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

Nonmajor Discretely Presented Component Units:

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):

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):

The University of Massachusetts System Foundation

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

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.

In 2018, the Commonwealth made certain adjustments to the amounts reported in the separately issued financial statements of the State Universities and Community Colleges that are audited by other auditors to correct the net OPEB liability and related deferred outflows of resources, deferred inflows of resources, and OPEB expense (OPEB amounts). The following table is a reconciliation of the OPEB amounts included in the separately issued financial statements of the State Universities and Community Colleges to the amounts reported herein for the State Universities and Community Colleges major funds (amounts in thousands):

	As previously reported in separately issued financial statements	Correction	As reported herein
State Universities:			
Deferred outflows of resources related to OPEB	\$ 64,470	\$ (7,151)	\$ 57,319
Net OPEB liability	409,860	(47,472)	362,388
Deferred inflows of resources related to OPEB	54,555	(12,015)	42,540
Total operating expenses	1,090,040	(1,231)	1,088,809
Beginning net position, as restated	546,953	51,105	598,058
Ending net position	526,045	52,336	578,381
Community Colleges:			
Deferred outflows of resources related to OPEB	27,361	(2,871)	24,490
Net OPEB liability	239,885	(27,784)	212,101
Deferred inflows of resources related to OPEB	35,813	(7,545)	28,268
Total operating expenses	879,404	(338)	879,066
Beginning net position, as restated	393,136	32,120	425,256
Ending net position	474,182	32,458	506,640

15. SUBSEQUENT EVENTS

SUBSEQUENT BOND ISSUANCES

On August 1, 2018, the Commonwealth issued approximately \$8 million in GO Bonds, Consolidated Loan of 2018 Series A (College Opportunity Bonds). These bonds carry an interest rate of 0.50%. The first principal payment is due on August 1, 2023 with final maturity on August 1, 2038.

On August 1, 2018, the MSBA issued \$200 million of Subordinated Dedicated Sales Tax Bonds (2018 Series B Bonds). The Bonds mature at various dates through February 2048 and interest is due semi-annually each February 15th and August 15th. The interest rate on the bonds ranges from 4% to 5.25%.

On August 28, 2018, the Commonwealth issued \$1.5 billion in GO Revenue Anticipation Notes (RANS) in three \$500 million notes: 2018 Series A, 2018 Series B and 2018 Series C. These notes carry an interest rate of 4.0% and mature on April 25, 2019, May 23, 2019 and June 20, 2019, respectively.

On September 5, 2018, the Commonwealth issued \$500 million in GO Bonds 2018 Series E. These notes carry interest rates from 2.0% to 5.25% with the first principal payment due on September 1, 2022 and final maturity on September 1, 2048.

On September 5, 2018, the Commonwealth issued approximately \$227 million in GO Refunding Bonds 2018, Series C. These bonds were issued to refund approximately \$265 million of various GO Bonds and carries interest rates of 4.0% to 5.0% with final maturity on September 1, 2032. The refunding resulted in reduced debt service of approximately \$54 million and a present value savings of approximately \$45 million over the life of the bonds.

On January 17, 2019, the Commonwealth issued \$550 million in GO Bonds, Consolidated Loan of 2019 Series A. These bonds carry interests ranging from 3.375% to 5.25% with the first principal payment due on January 1, 2030 and final maturity on January 1, 2049.

On January 17, 2019, the Commonwealth issued \$50 million in federally taxable GO Bonds, Consolidated Loan of 2019 Series B. These bonds carry interests ranging from 3.125% to 3.48% with the first principal payment due on January 1, 2025 and final maturity on January 1, 2029.

On January 17, 2019, the Commonwealth issued approximately \$318 million in GO Refunding Bonds 2019, Series A. These bonds were executed as current refundings to convert the 2015 Series C, 2017 Series A and 2006 Series B variable rate bonds to fixed rate bonds that carry a fixed rate of 5.0%, with final maturity on January 1, 2027. The Commonwealth expects to terminate the Wells Fargo swap hedged by these bonds in the near term.

All debt issues were sold as tax exempt, except as noted.

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, 2018

(Amounts in thousands)

	Original Budget	Final Budget	Actual	Variance
REVENUES AND OTHER FINANCING SOURCES				
Revenues:				
Taxes	\$ 23,561,400	\$ 23,561,400	\$ 24,573,885	\$ 1,012,485
Assessments	440,561	440,561	417,483	(23,078)
Federal grants and reimbursements	11,279,923	11,279,923	11,369,508	89,585
Tobacco settlement revenue	257,500	257,500	243,313	(14,187)
Departmental	2,968,873	2,968,795	3,377,036	408,241
Miscellaneous	294,821	294,821	423,468	128,647
Total revenues	38,803,078	38,803,000	40,404,693	1,601,693
Other financing sources:				
Fringe benefit cost recovery	435,041	435,041	434,924	(117)
Lottery reimbursements	90,888	90,888	103,136	12,248
Lottery distributions	994,754	994,754	983,108	(11,646)
Operating transfers in	246,222	246,222	203,427	(42,795)
Stabilization transfer	—	85,341	736,645	651,304
Total other financing sources	1,766,905	1,852,246	2,461,240	608,994
Total revenues and other financing sources	40,569,983	40,655,246	42,865,933	2,210,687
EXPENDITURES AND OTHER FINANCING USES				
Expenditures:				
Legislature	103,532	103,532	67,850	35,682
Judiciary	929,008	929,008	919,016	9,992
Inspector General	4,371	4,371	4,370	1
Governor and Lieutenant Governor	7,601	7,602	6,574	1,028
Secretary of the Commonwealth	43,086	43,086	39,339	3,747
Treasurer and Receiver-General	219,374	219,374	209,460	9,914
Auditor of the Commonwealth	18,723	18,723	18,610	113
Attorney General	49,247	49,247	47,989	1,258
Ethics Commission	2,094	2,094	2,042	52
District Attorney	119,703	119,703	119,206	497
Office of Campaign & Political Finance	1,618	1,618	1,594	24
Sheriff's Departments	621,920	621,920	620,299	1,621
Disabled Persons Protection Commission	3,131	3,131	3,131	—
Board of Library Commissioners	25,453	25,453	25,443	10
Comptroller	14,405	14,405	13,876	529
Administration and finance	2,641,279	2,641,280	2,305,797	335,483
Energy and environmental affairs	225,314	225,314	215,194	10,120
Health and human services	6,357,425	6,222,399	6,024,756	197,643
Executive Office of Technology Services and Security	151,555	151,555	73,456	78,099
Office of the Child Advocate	800	800	706	94
Cannabis Control Commission	6,999	6,999	2,241	4,758
Executive Office of education	2,351,178	2,351,178	2,289,929	61,249
Center for Health Information and Analysis	32,043	32,043	21,452	10,591
Public safety and homeland security	1,224,441	1,224,441	1,164,731	59,710
Housing and economic development	553,579	553,578	533,168	20,410
Labor and workforce development	60,670	60,670	46,785	13,885
Direct local aid	5,826,090	5,826,090	5,821,177	4,913
Medicaid	15,609,522	15,744,548	15,744,534	14
Post employment benefits	2,826,904	2,826,904	2,846,432	(19,528)
Debt service:				
Principal retirement	671,948	671,948	658,689	13,259
Interest and fiscal charges	535,401	535,401	525,435	9,966
Total expenditures	41,238,414	41,238,415	40,373,281	865,134
Other financing uses:				
Operating transfers out	270,326	270,326	319,423	(49,097)
State Retiree Benefits transfer	—	—	25,695	(25,695)
State Pension transfer	—	—	25,695	(25,695)
Medical assistance transfer	747,100	747,100	579,944	167,156
Stabilization transfer	—	51,500	589,663	(538,163)
Total other financing uses	1,017,426	1,068,926	1,540,420	(471,494)
Total expenditures and other financing uses	42,255,840	42,307,341	41,913,701	393,640
Excess/(deficiency) of revenues and other financing sources over expenditures and other financing uses	\$ (1,685,857)	\$ (1,652,095)	952,232	\$ 2,604,327
Fund balances/(deficits) at beginning of year			1,398,994	
Fund balances/(deficits) at end of year			<u>\$ 2,351,226</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.....	\$ 40,404,693
Adjustments for amounts budgeted for on a cash basis, rather than on the modified accrual basis:	
Tax receivable, net.....	323,910
Tax refunds and abatements payable, net.....	(270,278)
Federal reimbursements and other receivables	104,180
Reclassifications:	
Higher education revenue is reclassified for GAAP reporting.....	(162,663)
Inflows from component units and other miscellaneous financing sources.....	79,194
Certain revenue is reclassified to fiduciary funds for GAAP reporting	(10,427)
Total revenues as reported on the Statement of Revenues, Expenditures and Changes in Fund Balances - Governmental Funds	<u>\$ 40,468,609</u>

OTHER FINANCING SOURCES

Actual amounts (budgetary basis) "other financing sources" from the budgetary comparison schedule	\$ 2,461,240
Adjustments:	
Proceeds of capital lease on GAAP basis.....	228
Consolidation of transfers between funds	(730,611)
Inflows from component units and other miscellaneous financing sources.....	(79,178)
Total other financing sources as reported on the Statement of Revenues, Expenditures and Changes in Fund Balances - Governmental Funds.....	<u>\$ 1,651,679</u>

EXPENDITURES

Actual amounts (budgetary basis) "expenditures" from the budgetary comparison schedule	\$ 40,373,281
Adjustments for amounts budgeted for on a cash basis, rather than on the modified accrual basis:	
Medicaid payments.....	(31,500)
Compensated absences and other accrued liabilities.....	3,258
Reclassifications:	
Capital lease additions are additions to expenditures for GAAP purposes on a fund perspective.....	228
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.....	(1,184,124)
Higher education expenditures are reclassified for GAAP reporting.....	(1,312,948)
Expenditures to component units reported on a GAAP basis	(39,478)
Certain expenditures are reclassified to fiduciary funds for GAAP reporting	(10,427)
Total expenditures as reported on the Statement of Revenues, Expenditures and Changes in Fund Balances - Governmental Funds.....	<u>\$ 37,798,290</u>

OTHER FINANCING USES

Actual amounts (budgetary basis) "other financing uses" from the budgetary comparison schedule	\$ 1,540,420
Adjustments and Reclassifications:	
Consolidation of transfers between funds	(730,611)
Budgetary higher education amounts are reclassified to transfers under the modified accrual basis.....	1,150,285
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.....	1,184,124
Total other financing uses as reported on the Statement of Revenues, Expenditures and Changes in Fund Balances - Governmental Funds.....	<u>\$ 3,144,218</u>

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 FY18 (amounts in thousands):

	Revenues	Expenditures
General Appropriation Act, Chapter 47 of the Acts of 2017:		
Direct appropriations.....	\$ 40,293,200	\$ 39,585,757
Estimated revenues, transfers, retained revenue appropriations, and appropriations carried forward from FY2017.....	—	1,291,699
Total original budget	40,293,200	40,877,456
Supplemental Acts of 2017:		
Chapter 110.....	—	297,776
Chapter 142.....	—	2,700
Supplemental Acts of 2018:		
Chapter 24.....	—	17,214
Chapter 90.....	—	146,025
Chapter 273.....	—	483,433
Total budgeted revenues and expenditures per Legislative action.....	—	947,148
Plus: Pension contributions and revenue authorized outside of General Appropriation Act, and other transfers of revenue and spending.....	2,486,034	2,518,023
Budgeted revenues and expenditures as reported.....	<u>\$ 42,779,234</u>	<u>\$ 44,342,627</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, Statewide Financial Reporting and Analysis Team, at (617) 973-2660.

Schedule of Changes in the State Employees' Retirement System (SERS) Net Pension Liability and Related Ratios

(Amounts in thousands, except for percentages)

	2018	2017	2016	2015	2014
Total pension liability, July 1.....	\$ 39,107,000	\$ 37,760,000	\$ 35,425,414	\$ 31,355,000	\$ 29,988,000
Service cost.....	856,200	855,440	813,975	700,012	631,634
Interest.....	2,852,239	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.....	102,008	(428,232)	589,009	275,000	—
Changes of assumptions.....	622,000	304,000	—	2,330,000	102,000
Benefit payments, including refunds of member contributions.....	(2,314,447)	(2,207,582)	(2,107,327)	(1,876,451)	(1,771,838)
Net change in total pension liability.....	2,118,000	1,347,000	2,334,586	4,070,414	1,367,000
Total pension liability, June 30 (a).....	<u>\$ 41,225,000</u>	<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.....	\$ 26,282,232	\$ 23,971,156	\$ 24,042,585	\$ 23,930,895	\$ 21,084,958
Contributions:					
Employers - Commonwealth and MassDOT.....	840,990	716,266	660,818	601,931	550,483
Non-employer contributions - Commonwealth.....	35,184	28,455	21,830	18,040	21,293
Employer and non-employer contributions - other.....	9,564	7,999	16,642	15,808	6,048
ERIP funding contribution - Commonwealth.....	28,724	29,093	29,093	—	—
Plan members.....	600,705	604,772	591,948	549,493	501,106
Other additions.....	118,124	232,548	397,077	92,503	68,967
Total contributions.....	1,633,291	1,619,133	1,717,408	1,277,775	1,147,897
Net investment income.....	2,460,748	2,987,632	422,938	800,886	3,551,012
Benefit payments, including refunds of plan member contributions ...	(2,314,447)	(2,207,582)	(2,107,327)	(1,876,451)	(1,771,838)
Administrative expense.....	(16,369)	(30,030)	(20,624)	(15,966)	(12,705)
Other changes.....	(50,434)	(58,077)	(83,824)	(74,554)	(68,429)
Net change in plan fiduciary net position.....	1,712,789	2,311,076	(71,429)	111,690	2,845,937
Plan fiduciary net position, June 30 (b).....	<u>\$ 27,995,021</u>	<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>\$ 13,229,979</u>	<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.....	67.9%	67.2%	63.5%	67.9%	76.3%
Covered payroll (as of the actuarial valuation date).....	\$ 6,155,194	\$ 5,927,012	\$ 5,792,288	\$ 5,591,911	\$ 5,344,510
Net pension liability as a percentage of covered employee payroll.....	214.9%	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

FY2018 Changes in Actuarial Assumptions

Changes of Assumptions:

Change in the investment rate of return

SERS changed its discount rate to 7.35% from 7.50%. This change resulted in an increase to the total pension liability of approximately \$613 million.

Change in mortality

The following mortality assumption changes were made in the January 1, 2018 Actuarial Valuation:

- Disabled members - would reflect the same assumptions as for superannuation retirees, but with an age set forward of one year.

This change resulted in an increase to the total pension liability of approximately \$9 million.

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.

Changes of Assumptions:

Change in mortality

The following mortality assumption changes were made in the January 1, 2017 Actuarial Valuation:

- 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 to the total pension of approximately \$304 million.

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.

(Continued)

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 has increased by approximately \$230 million.

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 to the total pension liability of approximately \$933 million.

Change in mortality

The following mortality assumption changes were made in the January 1, 2015 Actuarial Valuation:

- 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 to the total pension liability of approximately \$1.397 billion.

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 to the total pension liability of approximately \$102 million.

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)

	2018	2017	2016	2015	2014
Total pension liability, July 1.....	\$ 50,024,000	\$ 47,300,000	\$ 45,918,711	\$ 41,435,000	\$ 39,931,000
Service cost.....	901,234	891,760	843,800	768,032	720,712
Interest.....	3,633,027	3,505,761	3,402,525	3,166,728	3,227,025
Differences between expected and actual experience.....	92,317	47,046	(74,025)	153,000	—
Changes of assumptions.....	845,000	1,176,000	—	3,080,000	108,000
Benefit payments, including refunds of member contributions.....	(2,992,578)	(2,896,567)	(2,791,011)	(2,684,049)	(2,551,737)
Net change in total pension liability.....	2,479,000	2,724,000	1,381,289	4,483,711	1,504,000
Total pension liability, June 30 (a).....	<u>\$ 52,503,000</u>	<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.....	\$ 27,138,609	\$ 24,942,072	\$ 25,429,068	\$ 25,538,646	\$ 22,697,302
Contributions:					
Non-employer.....	1,314,783	1,235,515	1,124,583	1,021,930	937,379
Plan members.....	755,688	730,212	699,422	669,941	653,328
Other additions.....	231,734	223,746	202,796	190,925	150,522
Total contributions.....	2,302,205	2,189,473	2,026,801	1,882,796	1,741,229
Net investment income.....	2,542,576	3,100,352	441,363	845,503	3,771,883
Benefit payments, including refunds of plan member contributions ...	(2,992,578)	(2,896,567)	(2,791,011)	(2,684,049)	(2,551,737)
Administrative expense.....	(19,528)	(24,053)	(24,220)	(23,444)	(20,499)
Other changes.....	(179,573)	(172,668)	(139,929)	(130,384)	(99,532)
Net change in plan fiduciary net position.....	1,653,102	2,196,537	(486,996)	(109,578)	2,841,344
Plan fiduciary net position, June 30 (b).....	<u>\$ 28,791,711</u>	<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>\$ 23,711,289</u>	<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.....	54.8%	54.3%	52.7%	55.4%	61.6%
Covered payroll (as of actuarial valuation date).....	\$ 6,829,012	\$ 6,583,871	\$ 6,388,732	\$ 6,204,274	\$ 5,962,650
Net pension liability as a percentage of covered employee payroll.....	347.2%	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

FY2018 Changes in Actuarial Assumptions

Changes of Assumptions:

Change in the investment rate of return

The Commonwealth revised its discount rate to 7.35% from 7.50%. This change resulted in an increase to the total pension liability of approximately \$845 million.

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:

- 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 to the total pension liability of approximately \$1.176 billion.

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 to the total pension liability of approximately \$1.190 billion.

Change in mortality

The following mortality assumption changes were made in the January 1, 2015 Actuarial Valuation:

- 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 to the total pension liability of approximately \$1.890 billion.

(Continued)

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 to the total pension liability of approximately \$108 million.

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)

	2018	2017
Total OPEB liability, July 1.....	\$ 18,480,936	\$ 19,821,600
Service cost.....	792,100	950,800
Interest.....	691,600	591,900
Differences between expected and actual experience.....	218,900	(48,600)
Changes of assumptions.....	(3,643,000)	(2,393,700)
Benefit payments, including refunds of member contributions.....	(443,763)	(441,064)
Net change in total pension liability.....	(2,384,163)	(1,340,664)
Total OPEB liability, June 30 (a).....	<u>\$ 16,096,773</u>	<u>\$ 18,480,936</u>
Plan fiduciary net position, July 1.....	\$ 996,407	\$ 866,043
Contributions:		
Employer.....	542,896	465,449
Other additions.....	133	784
Total contributions.....	543,029	466,233
Net investment income.....	93,308	105,822
Benefit payments, including refunds of plan member contributions.....	(443,763)	(441,064)
Administrative expense.....	(150)	(127)
Other changes.....	(1,262)	(500)
Net change in plan fiduciary net position.....	191,162	130,364
Plan fiduciary net position, June 30 (b).....	<u>\$ 1,187,569</u>	<u>\$ 996,407</u>
Plan net OPEB liability - June 30 (a) - (b).....	<u>\$ 14,909,204</u>	<u>\$ 17,484,529</u>
Plan fiduciary net position as a percentage of the total OPEB liability.....	7.4%	5.4%
Covered payroll (as of actuarial valuation date).....	\$ 6,155,194	\$ 5,927,012
Net OPEB liability as a percentage of covered employee payroll.....	242.2%	295.0%

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

FY2018 Changes in Actuarial Assumptions

Changes of Assumptions:

Change in base OPEB rates for medical and prescriptions

Annually, a recalibration of the underlying healthcare costs is performed using healthcare cost experience from the GIC and developing new per person annual costs under the different health plan options. The expectation is that the new rates will be equal to the prior year rates plus one year of healthcare trend (medical inflation).

This resulted in a decrease to the total OPEB liability of approximately \$2.679 billion.

Change in trend on future costs

The healthcare trend rate decreased from 8.5% in FY2017 to 8.0% in FY2018, which impacts the high cost excise tax. This resulted in a decrease to the total OPEB liability of approximately \$82 million.

Change in mortality

The following mortality assumption changes were made in the January 1, 2018 Actuarial Valuation:

- Disabled members - would reflect the same assumptions as for superannuation retirees, but with an age set forward of one year.

This change resulted in a decrease to the total OPEB liability of approximately \$1 million.

Change in discount rate

The discount rate was increased to 3.95% (based on a blend of the Bond Buyer Index rate (3.87%) as of the measurement date and the expected rate of return on assets) as required by GASB Statement No. 74. This increase in the discount rate resulted in a decrease to the total OPEB liability of approximately \$880 million.

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 to the total OPEB liability of approximately \$2.394 billion.

See Independent Auditors' Report

Schedule of Investment Returns

	Fiscal Year Ending June 30				
	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense - SERS	9.58%	12.74%	1.79%	3.40%	17.13%
Annual money-weighted rate of return, net of investment expense - MTRS.....	9.58%	12.75%	1.78%	3.40%	17.12%
Annual money-weighted rate of return, net of investment expense - SRBT	9.46%	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)

Proportionate Share of the Net Pension Liability	2018 (measurement date June 30, 2017)	2017 (measurement date June 30, 2016)	2016 (measurement date June 30, 2015)	2015 (measurement date June 30, 2014)
Proportion of the net pension liability	94.5%	94.3%	93.8%	93.9%
Proportionate share of the net pension liability	\$ 12,122,363	\$ 12,996,818	\$ 10,682,765	\$ 6,972,443
Plan net position as a percentage of the total pension liability	67.2%	63.5%	67.9%	76.3%
Covered payroll.....	\$ 5,397,203	\$ 5,249,985	\$ 5,136,405	\$ 4,975,346
Net pension liability as a percentage of covered payroll	224.6%	247.6%	208.0%	140.1%

Fiscal Year Ending June 30

Contributions	2018	2017	2016	2015	2014
Statutorily required contribution	\$ 876,174	\$ 744,721	\$ 682,648	\$ 619,971	\$ 571,776
Contributions in relation to the statutorily required contribution	876,174	744,721	682,648	619,971	571,776
Annual contribution deficiency/(excess).....	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Covered payroll	\$ 5,440,103	\$ 5,397,203	\$ 5,249,985	\$ 5,136,405	\$ 4,975,346
Contributions as a percentage of covered payroll	16.1%	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)

Proportionate Share of the Net Pension Liability	2018 (measurement date June 30, 2017)	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%	100.0%
Proportionate share of the net pension liability	\$ 22,885,391	\$ 22,357,928	\$ 20,489,643	\$ 15,896,354
Plan net position as a percentage of the total pension liability	54.3%	52.7%	55.4%	61.6%

Contributions	Fiscal Year Ending June 30				
	2018	2017	2016	2015	2014
Statutorily required contribution	\$ 1,314,783	\$ 1,235,515	\$ 1,124,583	\$ 1,021,930	\$ 937,379
Contributions in relation to the statutorily required contribution	1,314,783	1,235,515	1,124,583	1,021,930	937,379
Annual contribution deficiency/(excess).....	<u>\$ —</u>	<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)

Proportionate Share of the Net Pension Liability	2018 (measurement date December 31, 2017)	2017 (measurement date December 31, 2016)	2016 (measurement date December 31, 2015)	2015 (measurement date December 31, 2014)
Proportion of the net pension liability	60.5%	55.9%	54.5%	53.7%
Proportionate share of the net pension liability	\$ 2,433,199	\$ 2,325,286	\$ 2,402,267	\$ 2,066,546
Plan net position as a percentage of the total pension liability	62.7%	58.4%	55.8%	59.6%

Contributions	Fiscal Year Ending December 31				
	2017	2016	2015	2014	2013
Statutorily required contribution	\$ 131,298	\$ 132,477	\$ 120,434	\$ 109,485	\$ 99,532
Contributions in relation to the statutorily required contribution	131,298	132,477	120,434	109,485	99,532
Annual contribution deficiency/(excess).....	<u>\$ —</u>	<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**

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 FY2018 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 8.94% 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	3.25%
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

See Independent Auditors' Report

Schedule of Employer Contributions - OPEB

Commonwealth of Massachusetts

Last 10 Years
(amounts in thousands)

Contributions	Fiscal Year Ending June 30	
	2018	2017
Statorily required contribution.....	\$ 520,703	\$ 419,932
Contributions in relation to the statorily required contribution.....	520,703	419,932
Annual contribution deficiency/(excess).....	\$ —	\$ —
 Covered payroll.....	 \$ 6,155,194	 \$ 5,927,012
Contributions as a percentage of covered payroll.....	8.5%	7.1%

See Independent Auditors' Report



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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, 2018

(Amounts in thousands)

	Special Revenue						
	Commonwealth Transportation	Federal Grants	Universal Health Care	Environmental	Community First Trust	Gaming Control	Gaming Revenue
ASSETS							
Cash and cash equivalents	\$ 693	\$ 462	\$ 311,921	\$ 15,694	\$ 1,790	\$ 7,127	\$ —
Restricted cash with fiscal agent.....	19,373	—	—	—	—	—	—
Receivables, net of allowance for uncollectibles:							
Taxes	74,245	—	9,092	87	—	—	—
Due from federal government.....	—	289,208	—	942	—	—	—
Loans receivable	—	—	—	—	—	—	—
Other receivables	344	—	101,197	148	—	8,880	—
Due from other funds	—	—	—	—	—	—	—
Total assets	\$ 94,655	\$ 289,670	\$ 422,210	\$ 16,871	\$ 1,790	\$ 16,007	\$ —
LIABILITIES AND FUND BALANCES							
Liabilities:							
Accounts payable	\$ 693	\$ 236,809	\$ 89,203	\$ 724	\$ 445	\$ 3,316	\$ —
Accrued payroll.....	—	5,165	152	205	17	172	—
Tax refunds and abatements payable	26	—	—	—	—	—	—
Due to other funds.....	—	25,569	—	—	—	—	—
Due to component units	22,786	—	16,693	—	—	—	—
Other accrued liabilities	—	—	40,073	—	—	—	—
Total liabilities	23,505	267,543	146,121	929	462	3,488	—
Deferred inflows of resources.....	—	—	56,992	—	—	—	—
Total liabilities and deferred inflows of resources	23,505	267,543	203,113	929	462	3,488	—
Fund balances:							
Restricted	19,373	22,127	—	—	1,328	—	—
Committed.....	51,777	—	219,097	14,942	—	12,519	—
Assigned.....	—	—	—	1,000	—	—	—
Unassigned (deficits)	—	—	—	—	—	—	—
Fund balances (deficits)	71,150	22,127	219,097	15,942	1,328	12,519	—
Total liabilities and fund balances	\$ 94,655	\$ 289,670	\$ 422,210	\$ 16,871	\$ 1,790	\$ 16,007	\$ —

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
\$ 86,172	\$ 21,281	\$ 9,106	\$ 5,316	\$ 121,885	\$ 1,571	\$ 19,396	\$ 45,760	\$ 8,823	\$ 15,251
—	—	—	—	—	—	—	—	—	—
68,586	782	—	—	—	—	—	5,934	—	—
—	—	501	—	—	—	—	—	864	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	3,685	6,620
—	—	—	—	—	—	—	—	—	—
\$ 154,758	\$ 22,063	\$ 9,607	\$ 5,316	\$ 121,885	\$ 1,571	\$ 19,396	\$ 51,694	\$ 13,372	\$ 21,871
\$ 68,464	\$ 24,027	\$ 380	\$ 306	\$ 11,085	\$ 3,875	\$ 4,931	\$ 4,611	\$ 1,136	\$ 7
—	—	16	156	130	102	56	5	190	—
320	—	—	—	—	—	—	85	—	—
—	—	—	—	—	—	—	—	—	—
85,974	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
154,758	24,027	396	462	11,215	3,977	4,987	4,701	1,326	7
—	—	—	—	—	—	—	—	—	—
154,758	24,027	396	462	11,215	3,977	4,987	4,701	1,326	7
—	—	—	—	—	—	—	—	12,046	—
—	—	9,211	4,854	110,670	—	14,409	46,993	—	21,864
—	—	—	—	—	—	—	—	—	—
—	(1,964)	—	—	—	(2,406)	—	—	—	—
—	(1,964)	9,211	4,854	110,670	(2,406)	14,409	46,993	12,046	21,864
\$ 154,758	\$ 22,063	\$ 9,607	\$ 5,316	\$ 121,885	\$ 1,571	\$ 19,396	\$ 51,694	\$ 13,372	\$ 21,871

continued

Combining Balance Sheet

Other Governmental Funds

June 30, 2018

(Amounts in thousands)

	Special Revenue					
	Convention and Exhibition Center	Grant Anticipation Note Trust	Massachusetts Tourism Trust	Expendable Trust	Other	Debt Service
ASSETS						
Cash and cash equivalents	\$ 92,894	\$ 5,759	\$ 1,111	\$ 762,063	\$ 119,780	\$ 8,778
Restricted cash with fiscal agent.....	113,653	86,777	—	—	—	238
Receivables, net of allowance for uncollectibles:						
Taxes	20,005	—	6,584	347	73	—
Due from federal government.....	—	71,734	—	4,591	—	—
Loans receivable	—	—	—	914	14,086	—
Other receivables	—	—	—	21,266	107	—
Due from other funds	—	—	—	—	—	—
Total assets	\$ 226,552	\$ 164,270	\$ 7,695	\$ 789,181	\$ 134,046	\$ 9,016
LIABILITIES AND FUND BALANCES						
Liabilities:						
Accounts payable	\$ 10,277	\$ —	\$ 256	\$ 42,529	\$ 6,335	\$ —
Accrued payroll.....	—	—	32	2,426	531	—
Tax refunds and abatements payable	—	—	—	—	—	—
Due to other funds.....	—	71,734	—	—	—	—
Due to component units	—	—	—	—	—	—
Other accrued liabilities	—	—	—	—	—	—
Total liabilities	10,277	71,734	288	44,955	6,866	—
Deferred inflows of resources.....	—	—	—	8	—	—
Total liabilities and deferred inflows of resources	10,277	71,734	288	44,963	6,866	—
Fund balances:						
Restricted	—	—	—	245,579	14,086	9,016
Committed.....	216,275	92,536	7,407	328,813	148,126	—
Assigned.....	—	—	—	169,826	—	—
Unassigned (deficits)	—	—	—	—	(35,033)	—
Fund balances (deficits)	216,275	92,536	7,407	744,218	127,179	9,016
Total liabilities and fund balances	\$ 226,552	\$ 164,270	\$ 7,695	\$ 789,181	\$ 134,045	\$ 9,016

See Independent Auditors' Report

Capital Projects

General Capital Projects	Convention and Exhibition Center	Highway Capital Projects	Federal Highway Construction Program	Other	Total
\$ 578,924	\$ 8,393	251,509	\$ —	\$ —	\$ 2,501,458
—	—	—	—	—	220,041
—	—	—	—	—	185,735
—	—	—	—	—	367,840
—	—	—	—	—	15,000
—	—	—	—	—	142,247
—	—	—	71,734	—	71,734
\$ 578,924	\$ 8,393	\$ 251,509	\$ 71,734	\$ —	\$ 3,504,055
\$ 353,846	\$ —	\$ —	\$ —	\$ —	\$ 863,255
1,152	—	—	—	—	10,507
—	—	—	—	—	431
—	—	—	1,082	—	98,385
4,365	—	306,046	80,719	—	516,583
—	—	—	—	—	40,073
359,363	—	306,046	81,801	—	1,529,234
—	—	—	—	—	57,000
359,363	—	306,046	81,801	—	1,586,234
219,561	8,393	—	—	—	551,509
—	—	—	—	—	1,299,493
—	—	—	—	—	170,826
—	—	(54,537)	(10,067)	—	(104,007)
219,561	8,393	(54,537)	(10,067)	—	1,917,821
\$ 578,924	\$ 8,393	\$ 251,509	\$ 71,734	\$ —	\$ 3,504,055

Combining Statement of Revenues, Expenditures and Changes in Fund Balances

Other Governmental Funds
Fiscal Year Ended June 30, 2018
(Amounts in thousands)

	Special Revenue						
	Commonwealth Transportation	Federal Grants	Universal Health Care	Environmental	Community First Trust	Gaming Control	Gaming Revenue
REVENUES							
Taxes	\$ 1,337,036	\$ —	\$ 138,005	\$ 1,000	\$ —	\$ —	\$ 68,010
Assessments	22,462	—	614,276	—	—	—	—
Federal grants and reimbursements.....	—	3,684,188	321,687	7,277	—	—	—
Departmental.....	684,375	—	476,391	9,034	—	30,622	—
Miscellaneous.....	702	444	2,430	616	—	—	—
Total revenues	2,044,575	3,684,632	1,552,789	17,927	—	30,622	68,010
OTHER FINANCING SOURCES							
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.....	43,762	—	781,321	199	—	—	—
Total other financing sources	43,762	—	781,321	199	—	—	—
Total revenues and other financing sources	2,088,337	3,684,632	2,334,110	18,126	—	30,622	68,010
EXPENDITURES							
Current:							
Judiciary.....	—	1,764	—	—	—	—	—
Inspector General.....	—	—	387	—	—	—	—
Governor and Lieutenant Governor.....	—	—	—	—	—	—	—
Secretary of the Commonwealth	—	968	—	—	—	—	—
Treasurer and Receiver-General	5,723	1,288	—	—	—	195	—
Auditor of the Commonwealth.....	—	—	—	—	—	—	—
Attorney General	—	46,558	—	—	—	1,562	—
District Attorney	—	2,715	—	—	—	—	—
Sheriff's Departments	—	3,817	—	—	—	12	—
Disabled Person Protection Commission	—	571	—	—	—	—	—
Board of Library Commissioners	—	2,791	—	—	—	—	—
Massachusetts Gaming Commission	—	—	—	—	—	22,087	—
Comptroller.....	—	—	—	—	—	—	—
Administration and Finance.....	142,391	6,091	19,867	74	—	—	—
Energy and Environmental Affairs	—	39,055	—	15,762	—	—	—
Health and Human Services	—	1,659,870	68,732	—	11,170	1,008	—
Executive Office of Technology Services	—	—	—	—	—	—	—
Massachusetts Department of Transportation.....	605,266	379	—	—	—	—	—
Executive Office of Education.....	—	1,028,726	—	—	—	—	—
Center for Health and Information Analysis.....	—	5	—	—	—	—	—
Public Safety and Homeland Security.....	—	116,827	—	—	—	17	—
Housing and Economic Development	—	519,408	—	—	—	—	—
Labor and Workforce development	—	124,467	1,797	—	—	—	—
Medicaid	—	—	2,223,300	—	1,668	—	—
Post employment benefits.....	45,059	—	—	—	—	—	—
Direct local aid	—	—	—	—	—	—	—
Capital outlay:							
Capital acquisition and construction.....	—	—	—	—	—	—	—
Debt service.....	—	—	—	—	—	—	—
Principal on current refundings.....	—	—	—	—	—	—	—
Total expenditures.....	798,439	3,555,300	2,314,083	15,836	12,838	24,881	—
OTHER FINANCING USES							
Payments to refunding bond escrow agent	—	—	—	—	—	—	—
Transfers out.....	152,867	109,287	11,104	3,498	1,132	4,717	68,010
Transfers of appropriations	—	—	—	—	—	—	—
Transfers of bond proceeds	—	—	—	—	—	—	—
Transfers out for debt service.....	1,139,237	—	—	—	—	—	—
Total other financing uses	1,292,104	109,287	11,104	3,498	1,132	4,717	68,010
Total expenditures and other financing uses	2,090,543	3,664,587	2,325,187	19,334	13,970	29,598	68,010
Excess (deficiency) of revenues and other financing sources over expenditures and other financing uses	(2,206)	20,045	8,923	(1,208)	(13,970)	1,024	—
Fund balances (deficits) at beginning of year.....	73,356	2,082	210,174	17,150	15,298	11,495	—
Fund balances (deficits) at end of year	\$ 71,150	\$ 22,127	\$ 219,097	\$ 15,942	\$ 1,328	\$ 12,519	\$ —

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
\$ 1,010,926	\$ 24,576	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 24,148	\$ —	\$ —
166,408	—	—	—	—	—	—	—	—	25,005
—	—	15,423	—	—	79,903	—	—	25,425	—
—	—	—	10,932	102,366	—	39,460	—	5,257	6,532
—	127	—	—	344	—	—	—	155	43
1,177,334	24,703	15,423	10,932	102,710	79,903	39,460	24,148	30,837	31,580
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	19,153	—	—	—	—
—	—	—	—	—	19,153	—	—	—	—
1,177,334	24,703	15,423	10,932	102,710	99,056	39,460	24,148	30,837	31,580
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
1,177,334	—	—	—	—	—	—	—	9	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	199	—
—	—	—	—	7,266	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	24,117	—	—	509	—	28	—	32,411	—
—	—	—	—	—	—	41,757	—	—	—
—	—	—	—	55	—	81	—	—	—
—	—	—	—	185	4,385	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	100,359	—	125	—	—	—
—	—	—	8,807	—	—	—	—	—	—
—	—	—	—	—	—	—	19,412	—	871
—	—	13,474	—	—	50,158	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
1,177,334	24,117	13,474	8,807	108,374	54,543	41,991	19,412	32,619	871
—	—	—	—	—	—	—	—	—	—
—	42	359	2,289	6,337	1,795	—	95	3,892	24,541
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	42	359	2,289	6,337	1,795	—	95	3,892	24,541
1,177,334	24,159	13,833	11,096	114,711	56,338	41,991	19,507	36,511	25,412
—	544	1,590	(164)	(12,001)	42,718	(2,531)	4,641	(5,674)	6,168
—	(2,508)	7,621	5,018	122,671	(45,124)	16,940	42,352	17,720	15,696
\$ —	\$ (1,964)	\$ 9,211	\$ 4,854	\$ 110,670	\$ (2,406)	\$ 14,409	\$ 46,993	\$ 12,046	\$ 21,864

continued

Combining Statement of Revenues, Expenditures and Changes in Fund Balances

Other Governmental Funds
Fiscal Year Ended June 30, 2018
(Amounts in thousands)

	Special Revenue					
	Convention and Exhibition Center	Grant Anticipation Note Trust	Massachusetts Tourism Trust	Expendable Trust	Other	Debt Service
REVENUES						
Taxes	\$ 149,356	\$ —	\$ 10,293	\$ 347	\$ 1,105	\$ —
Assessments	—	—	—	76,721	31,815	—
Federal grants and reimbursements	—	542,712	—	27,228	9,175	46,692
Departmental	—	—	—	76,313	75,294	—
Miscellaneous	1,059	2,264	—	556,361	2,288	2
Total revenues	150,415	544,976	10,293	736,970	119,677	46,694
OTHER FINANCING SOURCES						
Bonds premium	—	—	—	—	—	159,408
Issuance of general and special obligation bonds	—	—	—	—	—	—
Issuance of current refunding bonds	—	—	—	—	—	466,735
Issuance of advance refunding bonds	—	—	—	—	—	526,180
Transfers in for debt service	—	—	—	—	—	2,480,756
Transfers in	—	36,406	—	17,407	95,526	—
Total other financing sources	—	36,406	—	17,407	95,526	3,633,079
Total revenues and other financing sources	150,415	581,382	10,293	754,377	215,203	3,679,773
EXPENDITURES						
Current:						
Judiciary	—	—	—	320	—	—
Inspector General	—	—	—	9	—	—
Governor and Lieutenant Governor	—	—	5	—	—	—
Secretary of the Commonwealth	—	—	—	—	4,742	—
Treasurer and Receiver-General	—	1,482	—	128,538	—	2,459
Auditor of the Commonwealth	—	—	—	142	—	—
Attorney General	—	—	—	989	560	—
District Attorney	—	—	—	6,657	194	—
Sheriff's Departments	—	—	—	2,371	1,373	—
Disabled Person Protection Commission	—	—	—	—	—	—
Board of Library Commissioners	—	—	—	—	—	—
Massachusetts Gaming Commission	—	—	—	—	22,149	—
Comptroller	—	—	—	316	2,128	—
Administration and Finance	24,386	—	—	33,880	3,238	—
Energy and Environmental Affairs	—	—	—	99,070	36,823	—
Health and Human Services	—	—	—	128,061	22,164	—
Executive Office of Technology Services	—	—	—	754	2,422	—
Massachusetts Department of Transportation	—	—	—	—	—	—
Executive Office of Education	—	—	—	23,888	1,786	—
Center for Health and Information Analysis	—	—	—	—	—	—
Public Safety and Homeland Security	—	—	—	9,748	7,848	—
Housing and Economic Development	—	—	9,594	18,180	848	—
Labor and Workforce development	—	—	—	53,029	226	—
Medicaid	—	—	—	5,731	—	—
Post employment benefits	—	—	—	—	—	—
Direct local aid	—	—	—	—	64,343	—
Capital outlay:						
Capital acquisition and construction	—	—	—	—	—	—
Debt service	—	—	—	—	—	2,518,969
Principal on current refundings	—	—	—	—	—	521,865
Total expenditures	24,386	1,482	9,599	511,683	170,844	3,043,293
OTHER FINANCING USES						
Payments to refunding bond escrow agent	—	—	—	—	—	627,998
Transfers out	—	479,727	2	150,209	21,062	—
Transfers of appropriations	—	—	—	1,321	75	—
Transfers of bond proceeds	—	—	—	—	—	—
Transfers out for debt service	54,474	97,489	—	—	5,432	—
Total other financing uses	54,474	577,216	2	151,530	26,569	627,998
Total expenditures and other financing uses	78,860	578,698	9,601	663,213	197,413	3,671,291
Excess (deficiency) of revenues and other financing sources over expenditures and other financing uses	71,555	2,684	692	91,164	17,790	8,482
Fund balances (deficits) at beginning of year	144,720	89,852	6,715	653,054	109,389	534
Fund balances (deficits) at end of year	\$ 216,275	\$ 92,536	\$ 7,407	\$ 744,218	\$ 127,179	\$ 9,016

See Independent Auditors' Report

Capital Projects					
General Capital Projects	Convention and Exhibition Center	Highway Capital Projects	Federal Highway Construction Program	Other	Total
\$ —	\$ —	\$ —	\$ —	\$ —	\$ 2,764,802
—	—	—	—	—	936,687
78,587	—	—	20,415	—	4,858,712
—	—	—	7,049	—	1,523,625
—	—	2,781	—	—	569,616
78,587	—	2,781	27,464	—	10,653,442
154,245	—	196,730	—	—	510,383
1,235,600	—	1,147,843	—	1,000	2,384,443
—	—	—	—	—	466,735
—	—	—	—	—	526,180
—	—	—	—	—	2,480,756
—	—	—	588,587	—	1,582,361
1,389,845	—	1,344,573	588,587	1,000	7,950,858
1,468,432	—	1,347,354	616,051	1,000	18,604,300
—	—	—	—	—	2,084
—	—	—	—	—	396
—	—	—	—	—	5
—	—	—	—	—	5,710
4,732	—	3,648	—	—	1,325,408
—	—	—	—	—	142
—	—	—	—	—	49,669
—	—	—	—	—	9,765
—	—	—	—	—	14,839
—	—	—	—	—	571
—	—	—	—	—	2,791
—	—	—	—	—	44,236
—	—	—	—	—	2,444
—	—	—	—	—	286,992
—	—	—	—	—	232,467
—	—	—	—	—	1,891,141
—	—	—	—	—	7,746
101,193	—	1,075,142	605,243	—	2,387,223
—	—	—	—	—	1,054,400
—	—	—	—	—	5
—	—	—	—	—	234,924
—	—	—	—	—	556,837
—	—	—	—	—	199,802
—	—	—	—	—	2,294,331
—	—	—	—	—	45,059
—	—	—	—	—	64,343
1,249,467	—	2,480	548	500	1,252,995
—	—	—	—	—	2,518,969
—	—	—	—	—	521,865
1,355,392	—	1,081,270	605,791	500	15,007,159
—	—	—	—	—	627,998
16,592	—	108,859	10,560	10	1,176,986
—	—	—	—	—	1,396
121,669	—	—	—	—	121,669
—	—	—	—	—	1,296,632
138,261	—	108,859	10,560	10	3,224,681
1,493,653	—	1,190,129	616,351	510	18,231,840
(25,221)	—	157,225	(300)	490	372,460
244,782	8,393	(211,762)	(9,767)	(490)	1,545,361
\$ 219,561	\$ 8,393	\$ (54,537)	\$ (10,067)	\$ —	\$ 1,917,821

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, 2018

(Amounts in thousands)

	Commonwealth Transportation Fund				Environmental Funds			
	Original Budget	Final Budget	Actual	Variance	Original Budget	Final Budget	Actual	Variance
REVENUES AND OTHER FINANCING SOURCES								
Revenues:								
Taxes	\$ 1,302,000	\$ 1,302,000	\$ 1,331,772	\$ 29,772	\$ 1,000	\$ 1,000	\$ 1,003	\$ 3
Assessments	23,947	23,947	22,204	(1,743)	—	—	—	—
Federal grants and reimbursements	—	—	—	—	6,200	6,200	7,410	1,210
Departmental	675,678	675,756	684,374	8,618	8,566	8,566	9,188	622
Miscellaneous	—	—	702	702	34	34	617	583
Total revenues	2,001,625	2,001,703	2,039,052	37,349	15,800	15,800	18,218	2,418
Other financing sources:								
Operating transfers in	40,000	40,000	43,762	3,762	182	182	199	17
Other fund deficit support	—	—	—	—	—	—	—	—
Total other financing sources	40,000	40,000	43,762	3,762	182	182	199	17
Total revenues and other financing sources	2,041,625	2,041,703	2,082,814	41,111	15,982	15,982	18,417	2,435
EXPENDITURES AND OTHER FINANCING USES								
Expenditures:								
Treasurer and Receiver-General	248,490	—	5,723	(5,723)	—	—	—	—
Attorney General	—	—	—	—	—	—	—	—
Sheriffs' Department	—	—	—	—	—	—	—	—
Administration and Finance	—	—	—	—	85	85	74	11
Energy and Environmental Affairs	—	—	—	—	19,221	19,221	15,762	3,459
Health and human services	—	—	—	—	—	—	—	—
Massachusetts Department of Transportation	127,000	127,000	127,000	—	—	—	—	—
Public Safety and Homeland Security	—	—	—	—	—	—	—	—
Direct local aid	—	—	—	—	—	—	—	—
Post employment benefits	—	—	45,059	(45,059)	—	—	—	—
Debt service:								
Principal retirement	—	668,753	641,016	27,737	—	—	—	—
Interest and fiscal charges	—	511,442	498,221	13,221	—	—	—	—
Total expenditures	375,490	1,307,195	1,317,019	(9,824)	19,306	19,306	15,836	3,470
Other financing uses:								
Fringe benefit cost assessment	—	—	—	—	—	—	3,498	(3,498)
Operating transfers out	393,146	630,650	634,676	(4,026)	—	—	—	—
Stabilization transfer	—	—	129,826	(129,826)	—	—	—	—
Total other financing uses	393,146	630,650	764,502	(133,852)	—	—	3,498	(3,498)
Total expenditures and other financing uses	768,636	1,937,845	2,081,521	(143,676)	19,306	19,306	19,334	(28)
Excess/(deficiency) of revenues and other financing sources over/(under) expenditures and other financing uses	\$ 1,272,989	\$ 103,858	1,293	\$ (102,565)	\$ (3,324)	\$ (3,324)	(917)	\$ 2,407
Fund balances at beginning of year			18,080				15,682	
Fund balances at end of year			\$ 19,373				\$ 14,765	

See Independent Auditors' Report

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
\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
1,900	1,900	1,022	(878)	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
1,900	1,900	1,022	(878)	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	64,400	64,400	68,011	3,611
—	—	—	—	—	—	—	—	64,400	64,400	68,011	3,611
1,900	1,900	1,022	(878)	—	—	—	—	64,400	64,400	68,011	3,611
—	—	—	—	—	—	—	—	—	—	—	—
—	4	4	—	—	—	—	—	—	—	—	—
—	20	20	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	11,666	11,170	496	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	2,096	2,048	48	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	64,344	64,343	1
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	2,120	2,072	48	—	11,666	11,170	496	—	64,344	64,343	1
—	—	586	(586)	—	—	867	(867)	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	3,668	(3,668)
—	—	586	(586)	—	—	867	(867)	—	—	3,668	(3,668)
—	2,120	2,658	(538)	—	11,666	12,037	(371)	—	64,344	68,011	(3,667)
<u>\$ 1,900</u>	<u>\$ (220)</u>	<u>(1,636)</u>	<u>\$ (1,416)</u>	<u>\$ —</u>	<u>\$ (11,666)</u>	<u>(12,037)</u>	<u>\$ (371)</u>	<u>\$ 64,400</u>	<u>\$ 56</u>	<u>—</u>	<u>\$ (56)</u>
		2,892				12,037				—	
		<u>\$ 1,256</u>				<u>\$ —</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, 2018

(Amounts in thousands)

	Local Aid Stabilization Fund				Marijuana Regulation Control Fund			
	Original Budget	Final Budget	Actual	Variance	Original Budget	Final Budget	Actual	Variance
REVENUES AND OTHER FINANCING SOURCES								
Revenues:								
Taxes	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Assessments	—	—	—	—	—	—	—	—
Federal grants and reimbursements.....	—	—	—	—	—	—	39	39
Departmental	—	—	—	—	—	—	—	—
Miscellaneous.....	—	—	—	—	—	—	—	—
Total revenues.....	—	—	—	—	—	—	39	39
Other financing sources:								
Operating transfers in.....	—	—	—	—	—	—	—	—
Total other financing sources.....	—	—	—	—	—	—	—	—
Total revenues and other financing sources.....	—	—	—	—	—	—	39	39
EXPENDITURES AND OTHER FINANCING USES								
Expenditures:								
Treasurer and Receiver-General.....	—	—	—	—	—	—	—	—
Attorney General.....	—	—	—	—	—	—	—	—
Sheriffs' Department	—	—	—	—	—	—	—	—
Administration and Finance.....	—	—	—	—	—	—	—	—
Energy and Environmental Affairs.....	—	—	—	—	—	—	—	—
Health and human services	—	—	—	—	—	—	—	—
Massachusetts Department of Transportation	—	—	—	—	—	—	—	—
Public Safety and Homeland Security	—	—	—	—	—	—	—	—
Direct Local Aid.....	—	—	—	—	—	—	—	—
Post employment benefits	—	—	—	—	—	—	—	—
Debt service:								
Principal retirement	—	—	—	—	—	—	—	—
Interest and fiscal charges.....	—	—	—	—	—	—	—	—
Total expenditures.....	—	—	—	—	—	—	—	—
Other financing uses:								
Fringe benefit cost assessment.....	—	—	—	—	—	—	—	—
Operating transfers out.....	—	—	—	—	—	—	—	—
Stabilization transfer	—	—	—	—	—	—	39	(39)
Total other financing uses.....	—	—	—	—	—	—	39	(39)
Total expenditures and other financing uses	—	—	—	—	—	—	39	(39)
Excess/(deficiency) of revenues and other financing sources over/(under) expenditures and other financing uses	\$ —	\$ —	—	\$ —	\$ —	\$ —	—	\$ —
Fund balances at beginning of year			50				—	
Fund balances at end of year			\$ 50				\$ —	

See Independent Auditors' Report

Totals			
Original Budget	Final Budget	Actual	Variance
\$ 1,303,000	\$ 1,303,000	\$ 1,332,775	\$ 29,775
23,947	23,947	22,204	(1,743)
6,200	6,200	7,449	1,249
686,144	686,222	694,584	8,362
34	34	1,319	1,285
<u>2,019,325</u>	<u>2,019,403</u>	<u>2,058,331</u>	<u>38,928</u>
<u>104,582</u>	<u>104,582</u>	<u>111,972</u>	<u>7,390</u>
<u>104,582</u>	<u>104,582</u>	<u>111,972</u>	<u>7,390</u>
<u>2,123,907</u>	<u>2,123,985</u>	<u>2,170,303</u>	<u>46,318</u>
248,490	—	5,723	(5,723)
—	4	4	—
—	20	20	—
85	85	74	11
19,221	19,221	15,762	3,459
—	11,666	11,170	496
127,000	127,000	127,000	—
—	2,096	2,048	48
—	64,344	64,343	1
—	—	45,059	(45,059)
—	668,753	641,016	27,737
—	511,442	498,221	13,221
<u>394,796</u>	<u>1,404,631</u>	<u>1,410,440</u>	<u>(5,809)</u>
—	—	4,951	(4,951)
393,146	630,650	634,676	(4,026)
—	—	133,533	(133,533)
<u>393,146</u>	<u>630,650</u>	<u>773,160</u>	<u>(142,510)</u>
<u>787,942</u>	<u>2,035,281</u>	<u>2,183,600</u>	<u>(148,319)</u>
<u>\$ 1,335,965</u>	<u>\$ 88,704</u>	(13,297)	<u>\$ (102,001)</u>
		48,741	
		<u>\$ 35,444</u>	

Combining Budget to GAAP Reconciliation
Other Budgeted Nonmajor Governmental Funds

Fiscal Year Ended June 30, 2018

(Amounts in thousands)

	Commonwealth Transportation Fund	Environmental Funds	Public Safety Trust Fund*	Community First Trust Fund
Total actual revenues - budgetary basis (pages 166–169)	\$ 2,039,052	\$ 18,218	\$ 1,022	\$ —
Adjustments:				
Taxes receivable, net	5,046	(3)	—	—
Tax refunds and abatements payable, net	218	—	—	—
Federal grants receivables, net	—	(133)	—	—
Departmental and other receivables, net	259	(155)	—	—
Total actual revenues - GAAP basis (pages 162–165).....	<u>\$ 2,044,575</u>	<u>\$ 17,927</u>	<u>\$ 1,022</u>	<u>\$ —</u>
Total actual other financing sources - budgetary basis (pages 166–169)	\$ 43,762	\$ 199	\$ —	\$ —
Adjustments:				
Miscellaneous adjustments	—	—	—	—
Total actual other financing sources - GAAP basis (pages 162–165).....	<u>\$ 43,762</u>	<u>\$ 199</u>	<u>\$ —</u>	<u>\$ —</u>
Total actual expenditures- budgetary basis (pages 166–169)	\$ 1,317,019	\$ 15,836	\$ 2,072	\$ 11,170
Adjustment:				
Due to component units accrual, net	9,022	—	—	—
Reclassification:				
MassDOT transfers out is reclassified to expenditures	611,635	—	—	—
Debt service principal and interest payments are reclassified to transfers out to the debt service fund	(1,139,237)	—	—	—
Nonbudgeted fund included on a GAAP basis	—	—	—	1,668
Total actual expenditures - GAAP basis (pages 162–165).....	<u>\$ 798,439</u>	<u>\$ 15,836</u>	<u>\$ 2,072</u>	<u>\$ 12,838</u>
Total actual other financing uses - budgetary basis (pages 166–169)	\$ 764,502	\$ 3,498	\$ 586	\$ 867
Reclassification:				
MassDOT transfers out is reclassified to expenditures	(611,635)	—	—	—
Higher education expenditures are reclassified to transfers out	—	—	—	—
Debt service principal and interest payments are reclassified to transfers out to the debt service fund	1,139,237	—	—	—
Nonbudgeted fund included on a GAAP basis	—	—	—	265
Total actual other financing uses - GAAP basis (pages 162–165).....	<u>\$ 1,292,104</u>	<u>\$ 3,498</u>	<u>\$ 586</u>	<u>\$ 1,132</u>

* On a GAAP basis, the activities for the Public Safety Trust fund, the Gaming Local Aid fund, the Local Aid Stabilization Fund and the Marijuana Regulation 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 \$119,677, \$95,526, \$170,844 and \$26,569, respectively (all amounts in thousands).

See Independent Auditors' Report

Gaming Local Aid Fund*	Local Aid Stabilization Fund*	Marijuana Regulation Fund*	Totals
\$ —	\$ —	\$ 39	\$ 2,058,331
—	—	—	5,043
—	—	—	218
—	—	—	(133)
—	—	—	104
<u>\$ —</u>	<u>\$ —</u>	<u>\$ 39</u>	<u>\$ 2,063,563</u>
\$ 68,011	\$ —	\$ —	\$ 111,972
(1)	—	—	(1)
<u>\$ 68,010</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 111,971</u>
\$ 64,343	\$ —	\$ —	\$ 1,410,440
—	—	—	9,022
—	—	—	611,635
—	—	—	(1,139,237)
—	—	—	1,668
<u>\$ 64,343</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 893,528</u>
\$ 3,668	\$ —	\$ 39	\$ 773,160
—	—	—	(611,635)
—	—	—	1,139,237
—	—	—	265
<u>\$ 3,668</u>	<u>\$ —</u>	<u>\$ 39</u>	<u>\$ 1,301,027</u>

Combining Statement of Net Position Available for Post-Employment Benefits

Pension and OPEB Trust Funds

June 30, 2018

(Amounts in thousands)

	Pension Trust Funds		OPEB Trust Fund	Total
	State Employees' PERS	Teacher's PERS	State Retiree Benefits	
ASSETS				
Cash and cash equivalents	\$ 103,761	\$ 109,801	\$ 99,528	\$ 313,090
Net investment in PRIT at fair value	27,758,610	28,588,059	1,088,179	57,434,848
Other receivables	27,645	95,316	—	122,961
Other assets	105,459	4,515	—	109,974
Total assets	27,995,475	28,797,691	1,187,707	57,980,873
LIABILITIES				
Accounts payable	454	5,980	138	6,572
Net position available for post-employment benefits	\$ 27,995,021	\$ 28,791,711	\$ 1,187,569	\$ 57,974,301

See Independent Auditors' Report

Combining Statement of Changes in Net Position Available for Post-Employment Benefits

Pension and OPEB Trust Funds

Fiscal Year Ended June 30, 2018

(Amounts in thousands)

	Pension Trust Funds		OPEB Trust Fund	Total
	State Employees' PERS	Teacher's PERS	State Retiree Benefits	
ADDITIONS				
Contributions:				
Employer contributions - Commonwealth and MassDOT.....	\$ 840,990	\$ —	\$ 542,896	\$ 1,383,886
Non-employer contributions - Commonwealth.....	35,184	1,314,783	—	1,349,967
Employer and non-employer contributions - other	9,564	—	—	9,564
ERIP funding contribution - Commonwealth.....	28,724	—	—	28,724
Employee contributions.....	600,705	755,688	—	1,356,393
Boston teachers' contribution from Commonwealth.....	—	131,298	—	131,298
Other additions	118,124	100,436	133	218,693
Total contributions.....	1,633,291	2,302,205	543,029	4,478,525
Net investment gain/(loss):				
Investment gain/(loss)	2,602,831	2,689,173	99,036	5,391,040
Less: investment expense	(142,083)	(146,597)	(5,728)	(294,408)
Net Investment gain/(loss)	2,460,748	2,542,576	93,308	5,096,632
Total additions.....	4,094,039	4,844,781	636,337	9,575,157
DEDUCTIONS				
Administration.....	16,369	19,528	150	36,047
Retirement benefits and refunds.....	2,314,447	2,992,578	443,763	5,750,788
Payments to State Boston Retirement System	—	131,298	—	131,298
Other deductions.....	50,434	48,275	1,262	99,971
Total deductions.....	2,381,250	3,191,679	445,175	6,018,104
Change in net position	1,712,789	1,653,102	191,162	3,557,053
Net position available for post-employment benefits at beginning of year	26,282,232	27,138,609	996,407	54,417,248
Net position available for post-employment benefits at end of year	\$ 27,995,021	\$ 28,791,711	\$ 1,187,569	\$ 57,974,301

See Independent Auditors' Report

Combining Statement of Net Position Held in Trust for Pool Participants

External Investment Trust Funds

June 30, 2018

(Amounts in thousands)

	Massachusetts Municipal Depository Trust	Pension Reserves Investment Trust	Total
ASSETS			
Cash and cash equivalents	\$ 4,147,267	\$ —	\$ 4,147,267
Short-term investments.....	39,075	—	39,075
Net investment in PRIT at fair value.....	—	14,362,901	14,362,901
Receivables, net of allowance for uncollectibles:			
Other receivables	6,054	—	6,054
Total assets	4,192,396	14,362,901	18,555,297
LIABILITIES			
Accounts payable	36,185	—	36,185
Net position held in trust for pool/pension participants	\$ 4,156,211	\$ 14,362,901	\$ 18,519,112

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, 2018
(Amounts in thousands)

	Massachusetts Municipal Depository Trust	Pension Reserves Investment Trust	Total
ADDITIONS			
Contributions:			
Other participant contributions	\$ —	\$ 1,192,119	\$ 1,192,119
Proceeds from sale of units	25,164,571	—	25,164,571
Total contributions	25,164,571	1,192,119	26,356,690
Net investment gain/(loss):			
Investment gain/(loss)	61,225	1,566,055	1,627,280
Less: investment expense	(1,937)	(294,830)	(296,767)
Net Investment gain/(loss)	59,288	1,271,225	1,330,513
Total additions	25,223,859	2,463,344	27,687,203
DEDUCTIONS			
Cost of units redeemed	24,813,579	—	24,813,579
Distributions to unit holders from net interest income	60,030	—	60,030
Retirement benefits and refunds	—	995,258	995,258
Total deductions	24,873,609	995,258	25,868,867
Change in net position	350,250	1,468,086	1,818,336
Net position held in trust for pool/participants at beginning of year	3,805,961	12,894,815	16,700,776
Net position held in trust for pool/participants at end of year	\$ 4,156,211	\$ 14,362,901	\$ 18,519,112

See Independent Auditors' Report

Combining Statement of Changes in Assets and Liabilities

Agency Funds

Fiscal Year Ended June 30, 2018

(Amounts in thousands)

	Balance July 1, 2017	Additions	Deductions	Balance June 30, 2018
<u>Central Agency Funds</u>				
ASSETS				
Cash and cash equivalents	\$ 359,373	\$ 16,096,964	\$ (16,167,894)	\$ 288,443
Investments, restricted investments and annuity contracts	1,062,350	59,008	(149,925)	971,433
Taxes receivable	37,578	41,382	(37,578)	41,382
Other receivables	9,480	—	(9,480)	—
Total assets	\$ 1,468,781	\$ 16,197,354	\$ (16,364,877)	\$ 1,301,258
LIABILITES				
Accounts payable	\$ 114,870	\$ 6,906,760	\$ (6,985,988)	\$ 35,642
Due to cities and towns	47,536	617,655	(621,775)	43,416
Due to federal government	1	99	(99)	1
Lottery prizes payable	1,062,350	59,008	(149,924)	971,434
Agency liabilities	244,024	5,151,139	(5,144,398)	250,765
Total liabilities	\$ 1,468,781	\$ 12,734,661	\$ (12,902,184)	\$ 1,301,258
<u>Court Escrow and Client Accounts</u>				
ASSETS				
Cash and cash equivalents	\$ 170,250	\$ 1,521,749	\$ (1,521,442)	\$ 170,557
Other receivables	121,437	127,101	(121,437)	127,101
Total assets	\$ 291,687	\$ 1,648,850	\$ (1,642,879)	\$ 297,658
LIABILITES				
Accounts payable	\$ 356	\$ 1,934,953	\$ (1,929,421)	\$ 5,888
Agency liabilities	291,331	869,777	(869,338)	291,770
Total liabilities	\$ 291,687	\$ 2,804,730	\$ (2,798,759)	\$ 297,658
<u>Statutory Bonds and Deposits</u>				
ASSETS				
Cash and cash equivalents	\$ 101,158	\$ 1,227,990	\$ (1,184,656)	\$ 144,492
Investments, restricted investments and annuity contracts	552,977	10,040	(43,521)	519,496
Total assets	\$ 654,135	\$ 1,238,030	\$ (1,228,177)	\$ 663,988
LIABILITES				
Agency liabilities	\$ 654,135	\$ 694,491	\$ (684,638)	\$ 663,988

See Independent Auditors' Report

Combining Statement Changes in Assets and Liabilities

Agency Funds

Fiscal Year Ended June 30, 2018

(Amounts in thousands)

	Balance July 1, 2017	Additions	Deductions	Balance June 30, 2018
<u>Total Agency Funds</u>				
ASSETS				
Cash and cash equivalents	\$ 630,781	\$ 18,846,703	\$ (18,873,992)	\$ 603,492
Investments, restricted investments and annuity contracts	1,615,327	69,048	(193,446)	1,490,929
Taxes receivable	37,578	41,382	(37,578)	41,382
Other receivables	130,917	127,101	(130,917)	127,101
Total assets	\$ 2,414,603	\$ 19,084,234	\$ (19,235,933)	\$ 2,262,904
LIABILITIES				
Accounts payable	\$ 115,226	\$ 8,841,713	\$ (8,915,409)	\$ 41,530
Due to cities and towns	47,536	617,655	(621,775)	43,416
Due to federal government	1	99	(99)	1
Lottery prizes payable	1,062,350	59,008	(149,924)	971,434
Agency liabilities	1,189,490	6,715,407	(6,698,374)	1,206,523
Total liabilities	\$ 2,414,603	\$ 16,233,882	\$ (16,385,581)	\$ 2,262,904

See Independent Auditors' Report

Combining Statement of Net Position
Nonmajor Discretely Presented Component Units
June 30, 2018
(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
ASSETS AND DEFERRED OUTFLOWS								
Current assets:								
Cash and cash equivalents	\$ 31,343	\$ 20,536	\$ 29,013	\$ 342	\$ 70,234	\$ 68,498	\$ 26,956	\$ 246,922
Short-term investments	—	71,090	141,384	10,755	33,156	2,699	44,660	303,744
Restricted cash and investments	587	97,560	35,665	20,227	—	78,026	1,911	233,976
Assets held in trust	18,369	—	—	—	—	1,080	—	19,449
Receivables, net of allowance for uncollectibles:								
Loans	380	16,440	3,341	—	41,087	11,069	—	72,317
Other receivables	6,829	9,173	2,807	603	2,912	3,770	7,439	33,533
Due from primary government	7,112	5,319	—	9,984	—	23,583	13	46,011
Inventory	—	—	—	—	—	85	—	85
Other current assets	2,146	3,248	469	453	—	360	5,815	12,491
Total current assets	66,766	223,366	212,679	42,364	147,389	189,170	86,794	968,528
Noncurrent assets:								
Cash and cash equivalents - restricted	—	16,035	—	11,703	—	—	—	27,738
Long - term investments	—	66,046	—	—	—	—	749,505	815,551
Restricted investments	—	—	—	—	—	—	54,892	54,892
Accounts receivables, net	—	857	—	—	—	1,201	15,047	17,105
Loans receivables, net	15,671	76,987	—	—	540,270	36,763	—	669,691
Non-depreciable capital assets	183,906	8,625	4,891	—	—	—	18,704	216,126
Depreciable capital assets, net	501,394	163,658	119,060	64,438	533	20,226	41,444	910,753
Other noncurrent assets	—	7,528	—	—	599	3,979	2,979	15,085
Total noncurrent assets	700,971	339,736	123,951	76,141	541,402	62,169	882,571	2,726,941
Total assets	767,737	563,102	336,630	118,505	688,791	251,339	969,365	3,695,469
Deferred outflows of resources:								
Deferred change in fair value of interest rate swaps	—	—	—	—	148	—	—	148
Deferred outflows related to pension	6,900	—	—	—	—	—	—	6,900
Deferred outflows related to OPEB	38	—	—	—	—	—	—	38
Total deferred outflows of resources	6,938	—	—	—	148	—	—	7,086
Total assets and deferred outflows	774,675	563,102	336,630	118,505	688,939	251,339	969,365	3,702,555
LIABILITIES AND DEFERRED INFLOWS								
Current liabilities:								
Accounts payable and other liabilities	13,398	18,627	9,493	19,483	751	22,281	35,002	119,035
Accrued payroll	—	—	—	—	1,126	566	—	1,692
Compensated absences	970	995	—	—	—	559	—	2,524
Accrued interest payable	—	229	—	—	1,988	—	—	2,217
Due to primary government	—	543	—	—	—	—	1,404	1,947
Unearned revenue	13,578	17,768	—	2,226	—	36,472	1,299	71,343
Bonds, notes payable and other obligations	—	5,380	—	—	36,906	2,884	1,542	46,712
Total current liabilities	27,946	43,542	9,493	21,709	40,771	62,762	39,247	245,470
Noncurrent liabilities:								
Compensated absences	1,273	—	—	577	—	153	—	2,003
Due to primary government	—	7,935	—	—	—	—	—	7,935
Unearned revenue	417	—	—	—	—	145	—	562
Bonds, notes payable and other obligations	—	7,727	—	—	524,225	67,860	11,595	611,407
Net pension liability	39,704	—	—	—	—	—	—	39,704
Net OPEB liability	8,526	—	—	—	—	—	—	8,526
Other noncurrent liabilities	—	7,650	—	4,041	64,735	1,130	3,087	80,643
Total noncurrent liabilities	49,920	23,312	—	4,618	588,960	69,288	14,682	750,780
Total liabilities	77,866	66,854	9,493	26,327	629,731	132,050	53,929	996,250
Deferred inflows of resources:								
Deferred service concession arrangements	—	713	—	—	—	290	—	1,003
Deferred inflows related to pension	3,437	—	—	—	—	—	—	3,437
Total deferred inflows of resources	3,437	713	—	—	—	290	—	4,440
Total liabilities and deferred inflows	81,303	67,567	9,493	26,327	629,731	132,340	53,929	1,000,690
NET POSITION								
Net investment in capital assets	685,300	152,325	123,951	64,439	533	24,150	42,776	1,093,474
Restricted for:								
Other purposes	18,128	168,895	35,665	21,473	20,822	52,802	791,945	1,109,730
Unrestricted	(10,056)	174,315	167,521	6,266	37,853	42,047	80,715	498,661
Total net position	\$ 693,372	\$ 495,535	\$ 327,137	\$ 92,178	\$ 59,208	\$ 118,999	\$ 915,436	\$ 2,701,865

See Independent Auditors' Report

Combining Statement of Revenues, Expenses and Changes in Net Position

Nonmajor Discretely Presented Component Units

Fiscal Year Ended June 30, 2018

(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
Operating revenues:								
Charges for services.....	\$ 70,615	\$ 56,387	\$ 1,927	\$ 5,303	\$ 10,859	\$ 98,300	\$ 15,297	\$ 258,688
Other	5,873	3,136	22,264	14,091	—	2,191	37,039	84,594
Total operating revenues	76,488	59,523	24,191	19,394	10,859	100,491	52,336	343,282
Operating expenses:								
Cost of services.....	53,280	50,644	40,779	34,970	714	99,244	—	279,631
Administration costs	32,346	17,781	11,830	297	7,681	16,140	54,949	141,024
Depreciation.....	52,526	10,044	3,730	6,891	143	1,588	1,736	76,658
Total operating expenses	138,152	78,469	56,339	42,158	8,538	116,972	56,685	497,313
Operating income/(loss)	(61,664)	(18,946)	(32,148)	(22,764)	2,321	(16,481)	(4,349)	(154,031)
Nonoperating revenues/(expenses):								
Operating grants	14,241	397	26,571	—	417	13,003	—	54,629
Interest income/(loss)	1,390	2,840	—	736	1,068	887	30,585	37,506
Other nonoperating revenue/(expense).....	1,665	(1,414)	8,177	—	1,271	(5,713)	46,074	50,060
Nonoperating revenues/(expenses), net..	17,296	1,823	34,748	736	2,756	8,177	76,659	142,195
Income/(loss) before contributions	(44,368)	(17,123)	2,600	(22,028)	5,077	(8,304)	72,310	(11,836)
Capital contributions.....	8,409	35,274	—	—	—	2,577	—	46,260
Change in net position/(deficits)	(35,959)	18,151	2,600	(22,028)	5,077	(5,727)	72,310	34,424
Net position - beginning, as restated	729,331	477,384	324,537	114,206	54,131	124,726	843,126	2,667,441
Net position - ending	\$ 693,372	\$ 495,535	\$ 327,137	\$ 92,178	\$ 59,208	\$ 118,999	\$ 915,436	\$ 2,701,865

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Statistical Section

(Unaudited)

Schedule of Net Position by Component – Last Ten Fiscal Years
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Massachusetts General Information

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.

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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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Schedule of Net Position by Component

Last Ten Fiscal Years

(Amounts in thousands)

	2018	2017	2016	2015*	2014*
Governmental activities					
Net investment in capital assets.....	\$ (1,446,934)	\$ (1,320,834)	\$ (1,067,098)	\$ (768,411)	\$ (502,370)
Restricted.....	1,546,202	1,926,716	1,538,662	1,541,566	1,455,704
Unrestricted	(74,254,002)	(63,992,915)	(59,111,509)	(55,626,596)	(53,381,910)
Total governmental activities net position...	\$ (74,154,734)	\$ (63,387,033)	\$ (58,639,945)	\$ (54,853,441)	\$ (52,428,576)
Business-type activities					
Net investment in capital assets.....	\$ 3,780,850	\$ 3,623,966	\$ 3,311,658	\$ 3,055,444	\$ 2,794,845
Restricted.....	1,833,109	1,735,575	1,745,840	1,539,785	1,590,545
Unrestricted	(595,063)	722,923	678,667	697,056	675,796
Total business-type activities net position ...	\$ 5,018,896	\$ 6,082,464	\$ 5,736,165	\$ 5,292,285	\$ 5,061,186
Commonwealth net position					
Net investment in capital assets.....	\$ 2,333,916	\$ 2,303,132	\$ 2,244,560	\$ 2,287,033	\$ 2,292,475
Restricted.....	3,379,311	3,662,291	3,284,502	3,081,351	3,046,249
Unrestricted	(74,849,065)	(63,269,992)	(58,432,842)	(54,929,540)	(52,706,114)
Total Commonwealth net position	\$ (69,135,838)	\$ (57,304,569)	\$ (52,903,780)	\$ (49,561,156)	\$ (47,367,390)

*Restated

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2013	2012	2011	2010*	2009*
\$ (592,483)	\$ (849,338)	\$ (722,469)	\$ (885,593)	\$ 189,913
1,386,416	1,456,715	1,520,702	1,403,877	1,377,951
(26,733,809)	(24,905,165)	(23,631,098)	(22,891,629)	(13,721,519)
\$ (25,939,876)	\$ (24,297,788)	\$ (22,832,865)	\$ (22,373,345)	\$ (12,153,655)
\$ 2,605,263	\$ 2,366,038	\$ 2,026,223	\$ 1,767,434	\$ 1,698,825
1,209,630	1,576,865	1,364,646	1,148,751	1,609,145
1,026,230	969,309	978,043	857,263	621,952
\$ 4,841,123	\$ 4,912,212	\$ 4,368,912	\$ 3,773,448	\$ 3,929,922
\$ 2,012,780	\$ 1,516,700	\$ 1,303,754	\$ 881,841	\$ 1,888,738
2,596,046	3,033,580	2,885,348	2,552,628	2,987,096
(25,707,579)	(23,935,856)	(22,653,055)	(22,034,366)	(13,099,567)
\$ (21,098,753)	\$ (19,385,576)	\$ (18,463,953)	\$ (18,599,896)	\$ (8,223,733)

Changes in Net Position
Last Ten Fiscal Years
(Amounts in thousands)

	2018	2017	2016	2015	2014 (1)
EXPENSES					
Governmental Activities:					
General government.....	\$ 2,792,578	\$ 2,764,614	\$ 2,616,051	\$ 2,703,519	\$ 2,521,394
Judiciary.....	1,162,698	1,226,221	1,154,038	1,026,429	1,007,234
Direct local aid.....	5,900,634	5,734,682	5,598,687	5,469,412	5,353,521
Medicaid.....	18,105,722	17,182,691	16,825,110	15,086,742	14,034,862
Group health insurance.....	1,648,278	1,668,100	1,632,703	1,657,018	1,403,590
Energy and environmental.....	732,161	720,182	1,069,510	671,801	615,854
Housing and economic development.....	1,544,103	1,411,189	1,367,957	1,314,980	1,289,156
Health and human services.....	8,298,704	8,131,843	7,912,817	7,605,180	7,308,295
Transportation and public works.....	2,483,768	2,535,121	2,711,910	2,689,975	2,379,178
Early elementary and secondary education.....	6,101,603	6,243,115	5,420,052	4,654,161	4,714,555
Public safety and homeland security.....	2,757,266	2,913,849	2,746,612	2,486,107	2,451,881
Labor and workforce development.....	295,061	312,510	324,678	309,091	352,454
Lottery.....	4,325,321	4,128,209	4,299,592	4,109,611	3,980,980
Interest (unallocated).....	1,419,910	1,384,248	1,250,004	1,263,218	1,197,709
Total governmental activities.....	\$ 57,567,807	\$ 56,356,574	\$ 54,929,721	\$ 51,047,244	\$ 48,610,664
Business-type Activities:					
Unemployment compensation.....	1,552,404	1,514,002	1,499,811	1,598,084	2,036,431
Higher Education:					
University of Massachusetts.....	3,307,087	3,167,596	3,151,215	2,809,062	2,925,013
State Universities.....	1,089,554	1,063,196	1,002,577	994,341	922,383
Community Colleges.....	891,991	936,241	928,067	891,906	852,946
Total business-type activities.....	\$ 6,841,036	\$ 6,681,035	\$ 6,581,670	\$ 6,293,393	\$ 6,736,773
Total Commonwealth expenses.....	\$ 64,408,843	\$ 63,037,609	\$ 61,511,391	\$ 57,340,637	\$ 55,347,437
REVENUES					
Program Revenues:					
Governmental Activities:					
Charges for services:					
General government.....	\$ 652,138	\$ 594,132	\$ 565,434	\$ 634,289	\$ 361,105
Judiciary.....	91,500	95,937	100,568	105,521	108,766
Medicaid.....	1,054,698	897,542	841,697	1,052,170	1,226,108
Group health insurance.....	941,946	802,628	799,011	755,712	660,359
Energy and environmental.....	273,504	249,565	289,738	253,856	262,339
Housing and economic development.....	213,530	194,940	173,941	164,438	165,365
Health and human services.....	1,292,584	1,359,519	1,224,967	405,710	483,080
Transportation and public works.....	625,595	596,200	577,292	577,430	530,853
Early elementary and secondary education.....	7,846	7,919	7,508	7,649	10,067
Public safety and homeland security.....	248,234	280,400	284,264	256,596	228,730
Labor and workforce development.....	269,293	40,652	38,581	175,130	150,394
Lottery.....	5,436,551	5,254,468	5,405,128	5,193,545	5,049,536
Total Charges for services.....	11,107,419	10,373,902	10,308,129	9,582,046	9,236,702
Operating grants and contributions.....	16,230,934	15,519,380	15,158,087	13,950,227	13,121,648
Capital grants and contributions.....	99,002	58,354	85,759	81,475	30,699
Total governmental activities.....	\$ 27,437,355	\$ 25,951,636	\$ 25,551,975	\$ 23,613,748	\$ 22,389,049
Business-type Activities:					
Charges for services:					
Unemployment Compensation.....	1,582,755	1,468,492	1,611,096	1,492,067	1,897,495
Higher Education:					
University of Massachusetts.....	1,907,824	1,882,899	1,875,144	1,602,043	1,697,585
State Universities.....	658,608	654,170	616,025	583,669	558,170
Community Colleges.....	262,629	274,868	274,252	266,956	270,512
Operating grants and contributions.....	932,962	909,228	891,823	936,917	1,347,423
Capital grants and contributions.....	160,201	238,621	265,714	206,128	122,081
Total business-type activities.....	\$ 5,504,979	\$ 5,428,278	\$ 5,534,054	\$ 5,087,780	\$ 5,893,266
Total Commonwealth program revenues.....	\$ 32,942,334	\$ 31,379,914	\$ 31,086,029	\$ 28,701,528	\$ 28,282,315
General Revenues and Other Changes in Net Position (all types consolidated):					
Governmental Activities:					
Taxes (all types).....	\$ 27,964,093	\$ 25,949,577	\$ 25,676,303	\$ 25,209,826	\$ 23,319,168
Investment earnings and miscellaneous.....	1,283,168	994,982	1,160,994	1,251,193	1,131,754
Transfers.....	(1,123,731)	(1,286,709)	(1,246,055)	(1,429,174)	(1,205,141)
Transfers to/from MassDOT.....	—	—	—	—	—
Total governmental activities.....	\$ 28,123,530	\$ 25,657,850	\$ 25,591,242	\$ 25,031,845	\$ 23,245,781
Business-type Activities:					
Investment earnings and miscellaneous.....	423,390	312,347	245,441	7,536	306,690
Other losses.....	—	—	—	—	—
Transfers.....	1,123,731	1,286,709	1,246,055	1,429,174	1,205,141
Total business-type activities.....	\$ 1,547,121	\$ 1,599,056	\$ 1,491,496	\$ 1,436,710	\$ 1,511,831
Total Commonwealth general revenues.....	\$ 29,670,651	\$ 27,256,906	\$ 27,082,738	\$ 26,468,555	\$ 24,757,612
CHANGES IN NET POSITION					
Governmental activities.....	\$ (2,006,922)	\$ (4,747,088)	\$ (3,786,504)	\$ (2,401,651)	\$ (2,975,834)
Business-type activities.....	211,064	346,299	443,880	231,099	668,324
Restatements.....	—	—	—	—	—
Total changes in net position including restatements.....	\$ (1,795,858)	\$ (4,400,789)	\$ (3,342,624)	\$ (2,170,552)	\$ (2,307,510)

(1) - Prior year amounts were reclassified to conform to current year presentation.

See Independent Auditors' Report

	2013 (1)	2012 (1)	2011 (1)	2010	2009
\$	2,571,685	\$ 2,384,142	\$ 2,312,037	\$ 2,317,016	\$ 2,591,953
	983,314	936,113	1,000,902	991,310	1,089,569
	5,179,104	4,991,532	4,845,738	5,030,363	5,210,451
	12,286,342	11,708,397	12,124,261	10,677,999	10,842,549
	1,282,661	1,218,079	1,113,544	1,092,178	977,565
	524,632	568,898	689,258	305,233	407,289
	1,250,008	1,246,213	1,365,368	1,291,142	1,036,891
	7,737,736	7,619,987	7,139,948	7,110,366	7,326,979
	1,868,020	1,759,589	2,270,136	2,062,054	1,319,110
	4,493,537	4,336,326	3,585,958	3,806,149	3,574,455
	2,391,982	2,323,452	2,295,561	2,292,163	2,462,398
	385,757	472,044	498,560	470,878	463,901
	3,982,700	3,877,305	3,661,834	3,649,396	3,693,318
	1,206,542	1,202,772	1,177,569	1,090,471	1,116,278
	46,144,020	44,644,849	44,080,673	42,186,717	42,112,704
	2,718,447	3,466,500	4,388,360	5,435,611	3,475,027
	2,759,488	2,684,039	2,865,015	2,640,134	2,474,797
	864,161	851,118	834,453	762,043	736,972
	814,245	801,038	772,883	716,526	671,923
	7,156,341	7,802,695	8,860,711	9,554,314	7,358,719
\$	53,300,361	\$ 52,447,544	\$ 52,941,384	\$ 51,741,031	\$ 49,471,424
\$	352,291	\$ 458,320	\$ 443,869	\$ 464,592	\$ 436,344
	111,384	114,170	120,293	128,198	123,819
	471,539	297,566	258,032	185,463	180,380
	619,982	495,377	431,078	349,870	230,456
	228,019	214,340	270,449	214,269	226,754
	150,690	142,320	142,387	221,340	178,011
	1,143,551	931,535	896,328	797,929	718,628
	567,348	505,842	502,004	517,045	494,733
	6,748	6,783	6,645	9,661	15,728
	218,643	205,546	193,983	202,427	175,069
	246,577	237,772	142,731	38,319	37,728
	5,041,329	4,940,151	4,630,205	4,626,777	4,643,592
	9,158,101	8,549,722	8,038,003	7,755,891	7,461,243
	12,836,122	12,909,908	14,217,481	12,771,164	12,059,019
	18,726	79,733	168,912	779,403	853,221
	22,012,948	21,539,363	22,424,397	21,306,458	20,373,482
	1,923,476	1,982,602	1,945,801	1,727,964	1,671,098
	1,640,296	1,519,496	1,685,386	1,527,880	1,419,932
	533,347	523,979	530,078	479,900	442,685
	281,428	275,778	250,341	235,865	219,986
	1,791,196	2,525,342	3,500,210	4,020,351	1,721,199
	123,396	162,271	42,819	48,684	56,377
	6,293,139	6,989,468	7,954,635	8,040,644	5,531,277
\$	28,306,087	\$ 28,528,831	\$ 30,379,032	\$ 29,347,102	\$ 25,904,759
\$	22,599,332	\$ 21,403,426	\$ 21,066,430	\$ 19,034,227	\$ 18,499,273
	985,713	1,393,094	991,230	1,474,995	1,489,018
	(1,096,061)	(1,155,955)	(860,904)	(864,697)	(1,070,652)
	—	—	—	(8,983,955)	—
	22,488,984	21,640,565	21,196,756	10,660,570	18,917,639
	271,832	214,056	652,489	504,404	83,850
	—	—	(10,746)	(12,125)	(11,530)
	1,096,061	1,155,955	860,904	864,697	1,070,652
	1,367,893	1,370,011	1,502,647	1,356,976	1,142,972
\$	23,856,877	\$ 23,010,576	\$ 22,699,403	\$ 12,017,546	\$ 20,060,611
\$	(1,642,088)	\$ (1,464,923)	\$ (459,521)	\$ (10,219,688)	\$ (2,821,583)
	504,691	556,784	596,571	(156,694)	(684,470)
	—	—	—	—	(152,800)
\$	(1,137,397)	\$ (908,139)	\$ 137,050	\$ (10,376,382)	\$ (3,658,853)

Fund Balances, Governmental Funds

Last Ten Fiscal Years

(Modified accrual basis of accounting)

(Amounts in thousands)

	2018	2017	2016	2015	2014
Total Unreserved general fund	\$ —	\$ —	\$ —	\$ —	\$ —
All Other Governmental Funds					
Reserved.....	—	—	—	—	—
Unreserved:					
Special Revenue Funds	—	—	—	—	—
Capital Projects Funds.....	—	—	—	—	—
Permanent Trust Funds.....	—	—	—	—	—
Total Unreserved	—	—	—	—	—
Total all other governmental funds	—	—	—	—	—
Total governmental fund balances	<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 **	1,519,833	1,926,716	1,377,671	1,792,461	1,518,671
Committed	3,301,976	2,351,175	2,421,647	2,375,021	2,249,906
Assigned	955,830	684,655	845,567	576,632	510,353
Unassigned.....	1,060,559	634,324	628,420	561,105	340,505
Total governmental fund balances	<u>\$ 6,838,198</u>	<u>\$ 5,596,870</u>	<u>\$ 5,273,305</u>	<u>\$ 5,305,218</u>	<u>\$ 4,619,434</u>

** amounts in prior years have been reclassified to conform to current year presentation

See Independent Auditors' Report

2013	2012	2011	2010*	2009*
\$ —	\$ —	\$ —	\$ —	\$ 1,734,822
—	—	—	—	1,401,985
—	—	—	—	2,044,674
—	—	—	—	(125,138)
—	—	—	—	5,000
—	—	—	—	1,924,536
—	—	—	—	3,326,521
<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 5,061,343</u>

\$ —	\$ —	\$ —	\$ 5,000
1,558,842	2,196,201	1,675,969	1,906,663
2,324,228	2,404,158	2,020,009	2,166,175
595,085	574,621	750,462	156,483
391,795	1,143,978	821,188	351,395
<u>\$ 4,869,950</u>	<u>\$ 6,318,958</u>	<u>\$ 5,267,628</u>	<u>\$ 4,585,716</u>

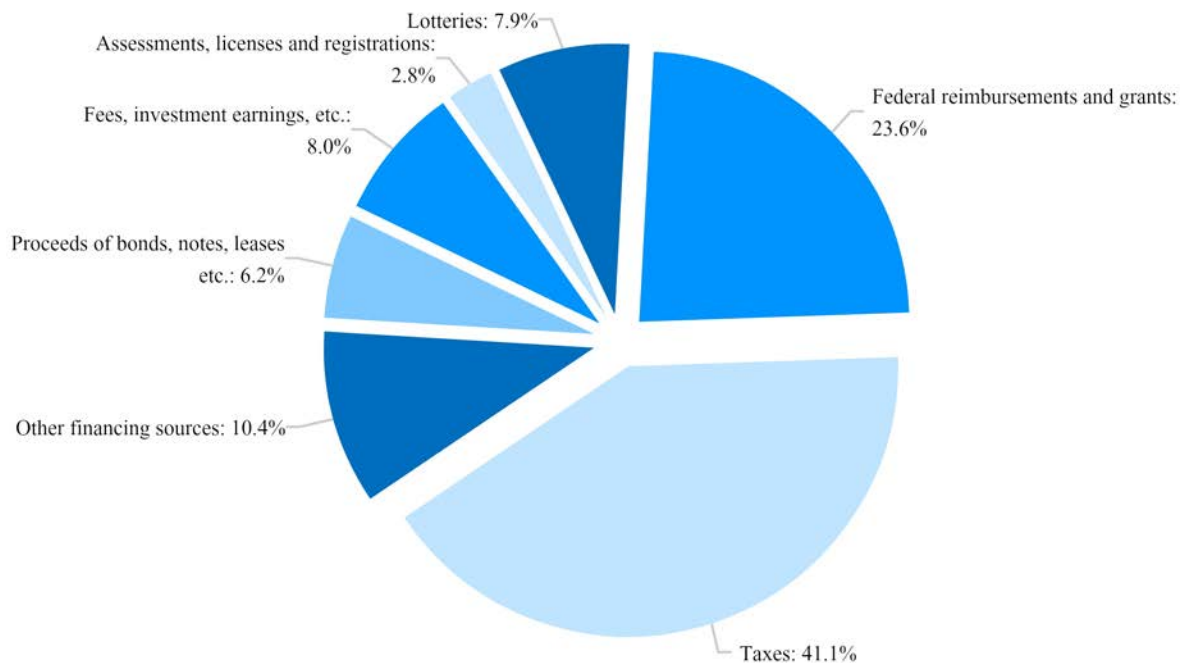
Ten-Year Schedule of Revenues and Other Financing Sources
All Governmental Fund Types - Fund Perspective
(Modified Accrual Basis of Accounting)

(Amounts in millions)

	2018	% Total	2017	% Total	2016	% Total	2015	% Total	2014	% Total
Taxes.....	\$ 28,243	41.1	\$ 25,828	37.7	\$ 25,746	38.0	\$ 25,258	41.7	\$ 23,786	41.6
Federal reimbursements.....	12,647	18.3	11,932	17.4	11,577	17.1	10,462	17.2	9,417	16.5
Federal grants	3,684	5.3	3,635	5.3	3,656	5.4	3,583	5.9	3,730	6.5
Lotteries.....	5,442	7.9	5,258	7.7	5,406	8.0	5,194	8.6	5,049	8.8
Assessments.....	1,354	2.0	1,219	1.8	1,104	1.6	1,026	1.7	1,080	1.8
Motor vehicle licenses and registrations	566	0.8	554	0.8	546	0.8	546	0.9	495	0.9
Fees, investment earnings, etc.....	5,518	8.0	4,966	7.3	4,957	7.3	4,540	7.5	4,152	7.3
Issuance of general and special obligation bonds.....	2,779	4.0	3,464	5.1	3,969	5.9	3,761	6.2	2,360	4.1
Issuance of refunding bonds.....	993	1.4	1,853	2.7	1,463	2.2	632	1	1,236	2.2
Bond premiums	562	0.8	812	1.2	613	0.9	379	0.6	193	0.3
Proceeds of capital lease.....	—	—	1	—	31	—	31	0.1	11	—
Other financing sources.....	7,202	10.4	8,915	13.0	8,682	12.8	5,247	8.6	5,701	10.0
Total revenues and other financing sources.....	\$ 68,990	100.0	\$ 68,437	100.0	\$ 67,750	100.0	\$ 60,659	100.0	\$ 57,210	100.0

See Independent Auditors' Report

**Apportionment of Revenues by Source -
Fiscal Year Ended June 30, 2018**



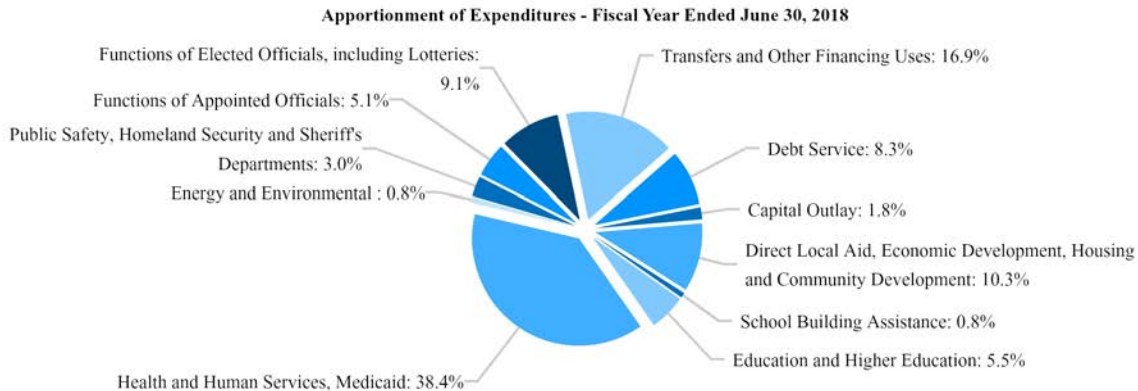
2013	% Total	2012	% Total	2011	% Total	2010	% Total	2009	% Total
\$ 22,391	40.5	\$ 21,533	39.6	\$ 20,854	38.7	\$ 18,991	37.3	\$ 18,354	36.9
8,981	16.2	8,934	16.4	10,066	18.8	9,453	18.5	9,392	18.9
3,887	7.0	4,051	7.5	4,311	8.0	4,097	8.0	3,510	7
5,042	9.1	4,944	9.1	4,631	8.6	4,628	9.1	4,650	9.3
1,093	2.0	1,024	1.9	980	1.8	965	2.0	929	1.9
487	0.9	474	0.9	461	0.9	463	0.9	383	0.8
3,750	6.8	3,823	7.0	3,246	6.0	3,365	6.6	3,204	6.4
1,471	2.7	2,902	5.3	2,233	4.1	2,419	4.7	2,042	4.1
1,913	3.5	388	0.7	888	1.6	538	1.1	390	0.8
398	0.7	260	0.5	130	0.2	16	0.0	99	0.2
1	—	4	—	12	—	17	0.0	18	—
5,876	10.6	6,033	11.1	6,086	11.3	6,027	11.8	6,817	13.7
<u>\$ 55,290</u>	<u>100.0</u>	<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>

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)

	2018	% Total	2017	% Total	2016	% Total	2015	% Total	2014	% Total
Legislature	\$ 68	0.1	\$ 67	0.1	\$ 61	0.1	\$ 61	0.1	\$ 56	0.1
Judiciary.....	921	1.4	908	1.3	880	1.3	845	1.4	816	1.4
Inspector General.....	5	—	4	—	5	—	5	—	6	—
Governor and Lieutenant Governor.....	7	—	7	—	7	—	6	—	5	—
Secretary of the Commonwealth	45	0.1	51	0.1	44	0.1	50	0.1	51	0.1
Treasurer and Receiver-General	5,854	8.6	5,657	8.2	5,799	8.7	5,602	9.7	5,327	9.5
Auditor of the Commonwealth.....	19	—	18	—	19	—	18	—	18	—
Attorney General	98	0.1	76	0.1	67	0.1	41	0.1	88	0.2
Ethics Commission	2	—	2	—	2	—	2	—	2	—
District Attorney	129	0.2	130	0.2	124	0.2	119	0.2	115	0.2
Office of Campaign and Political Finance	2	—	2	—	2	—	3	—	1	—
Sheriff's Department.....	635	0.9	624	0.9	616	0.9	593	1.0	565	1.0
Disabled Persons Protection Commission.....	4	—	3	—	3	—	3	—	2	—
Board of Library Commissioners	28	—	28	—	28	—	28	—	25	—
Massachusetts Gaming Commission.....	44	0.1	37	0.1	34	0.1	23	—	23	—
Comptroller.....	16	—	17	—	17	—	16	—	16	—
Administration and finance	2,475	3.7	2,444	3.6	2,416	3.6	2,490	4.2	2,296	4.0
Energy and environmental.....	445	0.7	405	0.6	436	0.6	417	0.7	410	0.7
Health and human services	7,813	11.5	7,463	11.0	7,402	10.9	7,211	12.0	6,957	12.1
Executive Office of Technology Services	81	0.1	—	—	—	—	—	—	—	—
Transportation and public works	—	—	—	—	—	—	—	—	—	—
Massachusetts department of transportation.....	2,387	3.5	2,391	3.5	2,595	3.8	2,611	4.4	2,296	4.0
Office of the Child Advocate.....	1	—	1	—	1	—	—	—	—	—
Cannabis Control Commission.....	2	—	—	—	—	—	—	—	—	—
Executive office of education*.....	3,723	5.5	3,589	5.3	3,478	5.1	3,320	5.5	3,201	5.6
Center for Health and Information Analysis.....	21	—	23	—	27	—	28	—	26	—
Massachusetts school building assistance	550	0.8	621	0.9	626	0.9	732	1.2	869	1.5
Higher education.....	—	—	—	—	—	—	—	—	—	—
Public safety and homeland security	1,400	2.1	1,374	2.0	1,385	2.0	1,334	2.2	1,274	2.2
Housing and economic development*.....	1,089	1.6	1,021	1.5	1,048	1.5	1,021	1.7	1,035	1.8
Labor and workforce development*.....	255	0.4	259	0.4	277	0.4	269	0.4	330	0.6
Medicaid	18,106	26.9	17,183	25.2	16,825	24.9	15,087	25.2	14,035	24.4
Pension	1,294	1.9	1,127	1.7	1,103	1.6	902	1.5	865	1.5
Direct local aid.....	5,901	8.7	5,735	8.4	5,599	8.3	5,469	9.1	5,353	9.3
Capital outlay:										
Local aid	—	—	—	—	1	—	—	—	—	—
Capital acquisition and construction.....	1,253	1.8	1,202	1.8	1,162	1.7	1,205	2.0	999	1.7
Debt service:										
Principal/commercial paper repayment.....	3,706	5.5	4,676	6.9	4,487	6.6	1,781	3.0	1,546	2.7
Interest	1,381	2.0	1,262	1.9	1,248	1.8	1,187	2.0	1,223	2.1
Principal on current refunding.....	522	0.8	188	0.3	250	0.4	203	0.3	159	0.3
Other financing uses:										
Payments to refunding bond escrow agent.....	628	0.9	2,304	3.4	2,613	3.9	615	1.0	562	1.0
Transfers	6,838	10.1	7,215	10.6	7,094	10.5	6,676	11.1	6,907	12.0
Total expenditures and other financing uses.....	<u>\$ 67,749</u>	<u>100.0</u>	<u>\$ 68,114</u>	<u>100.0</u>	<u>\$ 67,781</u>	<u>100.0</u>	<u>\$ 59,973</u>	<u>100.0</u>	<u>\$ 57,461</u>	<u>100.0</u>
Change in Governmental Fund Balance.....	<u>\$ 1,241</u>		<u>\$ 324</u>		<u>\$ (32)</u>		<u>\$ 686</u>		<u>\$ (251)</u>	

* NOTE: Reflects departmental and functional reorganizations as of the year implemented. Prior years not restated.

See Independent Auditors' Report



	2013	% Total	2012	% Total	2011	% Total	2010	% Total	2009	% Total
\$	57	0.1	\$ 58	0.1	\$ 58	0.1	\$ 59	0.1	\$ 60	0.1
	792	1.4	757	1.4	771	1.4	769	1.5	797	1.5
	6	—	3	—	4	—	4	—	3	—
	6	—	7	—	5	—	5	—	8	—
	49	0.1	41	0.1	45	0.1	52	0.1	51	0.1
	5,307	9.5	5,282	9.9	5,084	9.6	4,862	9.4	5,097	9.8
	18	—	17	—	18	—	18	—	19	—
	76	0.1	55	0.1	34	0.1	52	0.1	53	0.1
	2	—	2	—	2	—	2	—	2	—
	115	0.2	110	0.2	104	0.2	102	0.2	112	0.2
	1	—	1	—	3	—	1	—	1	—
	541	1.0	529	1.0	514	1.0	394	0.8	296	0.6
	2	—	2	—	2	—	2	—	3	—
	25	—	24	—	25	—	28	0.1	37	0.1
	14	—	1	—	—	—	—	—	—	—
	14	—	14	—	14	—	13	—	14	—
	2,295	4.1	1,949	3.7	1,852	3.3	1,686	3.3	1,709	3.4
	365	0.6	351	0.7	368	0.7	403	0.8	352	0.7
	7,384	13.1	7,301	13.6	6,791	12.8	6,655	12.9	6,684	12.9
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	474	0.9	389	0.8
	1,785	3.1	1,679	3.1	2,086	3.9	1,209	2.3	—	—
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
	3,008	5.3	3,069	5.8	3,232	6.1	2,968	5.8	2,920	5.6
	9	—	—	—	—	—	—	—	—	—
	1,037	1.8	975	1.8	791	1.5	973	1.9	657	1.3
	—	—	—	—	—	—	—	—	—	—
	1,296	2.3	1,208	2.3	1,146	2.2	1,282	2.5	1,416	2.7
	988	1.7	999	1.9	1,082	2.0	1,060	2.1	793	1.5
	350	0.6	455	0.9	478	0.9	447	0.9	398	0.8
	12,286	21.7	11,708	22.0	12,124	22.8	10,678	20.8	10,843	20.9
	878	1.5	801	1.5	744	1.4	587	1.1	647	1.2
	5,179	9.1	4,991	9.4	4,846	9.1	5,030	9.8	5,208	10.1
	—	—	—	—	—	—	1	—	3	—
	854	1.5	847	1.6	885	1.7	1,300	2.5	2,514	4.9
	—	—	—	—	—	—	—	—	—	—
	1,525	2.7	1,297	2.4	1,071	2.0	1,300	2.5	1,296	2.5
	1,229	2.2	1,207	2.3	1,149	2.2	1,107	2.2	1,114	2.2
	230	0.4	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
	2,046	3.6	388	0.7	945	1.8	537	1.0	410	0.8
	6,972	12.3	7,189	13.5	6,947	13.1	7,395	14.4	7,887	15.2
\$	56,739	100.0	\$ 53,319	100.0	\$ 53,217	100.0	\$ 51,455	100.0	\$ 51,789	100.0
\$	(1,448)		\$ 1,051		\$ 681		\$ (476)		\$ (2,001)	

**Personal Income by Industry
Last Ten Calendar Years**

(Amounts in millions)

	2017	2016	2015	2014	2013
Total personal income	\$ 450,962	\$ 442,500	\$ 415,636	\$ 396,206	\$ 381,271
Unearned income.....	111,017	108,349	97,728	94,494	91,615
Farm earnings	129	151	195	178	151
Nonfarm earnings	339,816	334,000	317,713	301,534	289,505
Private earnings	297,325	292,750	272,533	262,843	252,939
Agricultural services, forestry, fishing.....	716	677	406	354	373
Mining.....	608	379	276	270	201
Construction.....	20,609	19,473	17,197	15,481	14,759
Manufacturing	26,550	27,181	26,497	25,921	25,341
Durable goods	18,709	18,894	18,193	18,224	17,977
Nondurable goods	7,841	8,287	8,304	7,697	7,364
Transportation and utilities	8,649	8,330	7,600	7,295	7,083
Wholesale trade.....	14,830	14,621	13,938	13,546	13,483
Retail trade.....	15,982	15,520	14,716	14,137	13,565
Services.....	235,931	233,750	191,903	185,839	178,134
Government	42,492	41,130	39,921	38,691	36,567
Federal, civilian	5,477	5,427	5,202	5,007	4,792
Military	891	860	860	874	943
State and local	36,124	34,843	33,859	32,810	30,832
Personal income tax revenue (fiscal year, statutory basis)...	\$ 16,240	\$ 14,394	\$ 14,449	\$ 13,202	\$ 12,831
Total personal income	\$ 450,962	\$ 442,500	\$ 415,636	\$ 396,206	\$ 381,271
Average Effective Rate.....	3.60%	3.25%	3.48%	3.33%	3.40%
Highest Earned Income Tax Rate.....	5.10%	5.10%	5.15%	5.20%	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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2012	2011	2010	2009	2008
\$ 363,944	\$ 352,243	\$ 336,400	\$ 324,680	\$ 335,722
87,333	83,338	81,190	78,336	80,365
150	136	186	137	180
276,461	268,769	255,024	246,208	255,176
243,502	236,763	223,784	215,396	225,122
426	409	383	376	383
113	124	97	101	181
13,426	12,526	11,687	11,717	13,671
26,375	25,387	25,108	23,290	25,449
19,223	18,319	18,053	16,466	18,170
7,152	7,069	7,055	6,824	7,280
6,742	6,604	6,208	6,029	6,235
12,979	13,082	12,501	12,458	13,412
13,333	12,891	12,599	12,255	12,545
170,109	165,740	155,202	149,171	153,246
32,959	32,006	31,240	30,812	30,054
5,442	5,426	5,431	5,314	5,157
1,221	1,245	1,260	1,220	1,092
26,296	25,335	24,550	24,278	23,806

\$ 11,911	\$ 11,576	\$ 10,110	\$ 10,584	\$ 12,484
\$ 363,944	\$ 352,243	\$ 336,400	\$ 324,680	\$ 335,722
3.30%	3.30%	3.00%	3.30%	3.70%
5.25%	5.30%	5.30%	5.30%	5.30%

Commonwealth of Massachusetts
Personal Income Tax Filers and Liability by Income Level
Calendar (Tax) Years 2016 and 2007

(Amounts, except income level are in thousands)

Calendar Year 2016 (or Fiscal Year 2017)

Income Level	Number of Filers	Percentage of Total	Personal Income Tax Liability	Percentage of Total
\$100,001 and higher.....	788,359	20.7%	\$ 9,951,412	72.8%
\$75,001 - \$100,000.....	310,000	8.1%	1,130,890	8.3%
\$50,001 - \$75,000.....	498,208	13.1%	1,236,388	9.0%
\$25,001 - \$50,000.....	816,177	21.4%	1,051,854	7.7%
\$10,001 - \$25,000.....	662,011	17.4%	271,197	2.0%
\$10,000 and lower.....	736,924	19.3%	33,274	0.2%
Total.....	<u>3,811,679</u>	<u>100.0%</u>	<u>\$ 13,675,015</u>	<u>100.0%</u>

Calendar Year 2007 (or Fiscal Year 2008)

Income Level	Number of Filers	Percentage of Total	Personal Income Tax Liability	Percentage of Total
\$100,001 and higher.....	574,025	16.3%	\$ 7,902,091	68.2%
\$75,001 - \$100,000.....	288,487	8.3%	1,084,892	9.4%
\$50,001 - \$75,000.....	463,892	13.3%	1,189,974	10.3%
\$25,001 - \$50,000.....	791,323	22.7%	1,073,848	9.3%
\$10,001 - \$25,000.....	651,173	18.7%	285,485	2.5%
\$10,000 and lower.....	722,208	20.7%	34,435	0.3%
Total.....	<u>3,491,108</u>	<u>100.0%</u>	<u>\$ 11,570,725</u>	<u>100.0%</u>

Source: Massachusetts Department of Revenue - 2016 is the most recent tax year for which complete data is available.

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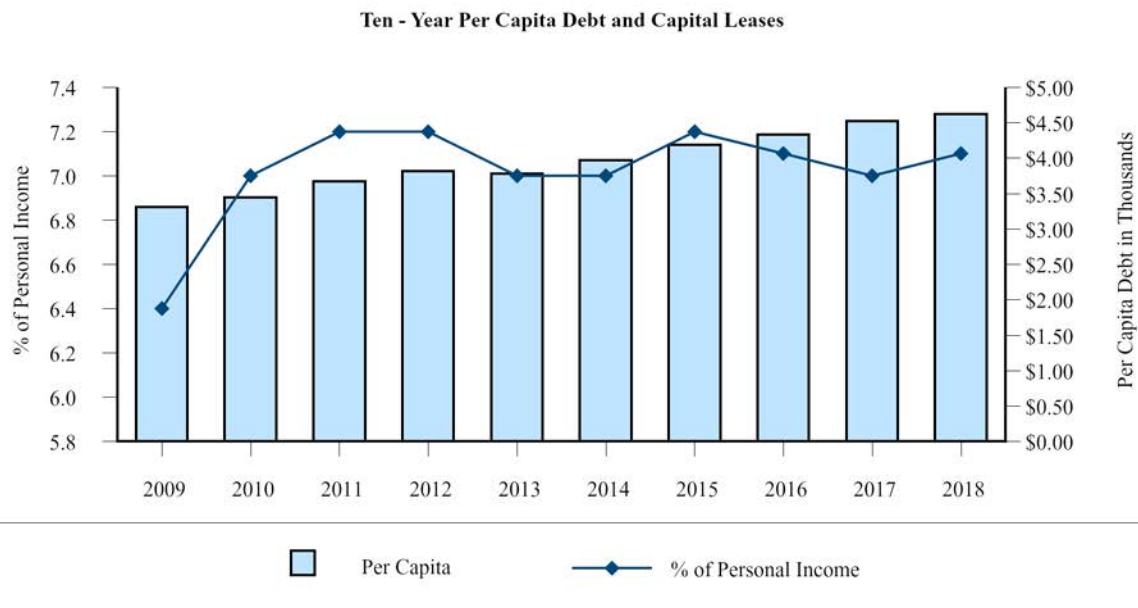
Ten - Year Schedule of Per Capita General Long-Term Bonded Debt and Capital Leases

(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					
2018	\$ 27,360,819	\$ 22,492	\$ 4,438,502	\$ 9,825	\$ 31,831,638	\$ 450,961,579	6,860	7.1%	\$ 4.64
2017	26,445,665	30,856	4,529,353	8,979	31,014,853	442,500,000	6,824	7.0%	4.54
2016	25,079,591	41,302	4,438,282	9,887	29,569,062	415,636,000	6,794	7.1%	4.35
2015	23,826,301	42,928	4,553,105	9,895	28,432,229	396,206,000	6,758	7.2%	4.21
2014	22,419,852	55,878	4,243,731	14,529	26,733,990	381,271,000	6,711	7.0%	3.98
2013	21,513,039	50,831	3,736,432	19,299	25,319,601	363,943,750	6,660	7.0%	3.80
2012	21,907,683	60,457	3,370,389	23,327	25,361,856	352,242,750	6,612	7.2%	3.84
2011	20,875,055	60,975	3,277,413	31,105	24,244,548	336,399,750	6,565	7.2%	3.69
2010	19,726,507	76,608	2,731,124	40,924	22,575,163	324,680,250	6,518	7.0%	3.46
2009	19,264,569	109,765	2,103,675	58,885	21,536,894	335,721,500	6,469	6.4%	3.33

- (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 2009 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)

	2018 (3)	2017 (3)	2016 (3)	2015 (3)	2014 (3)
Outstanding principal as of June 30 (1).....	\$ 27,360,819	\$ 26,445,665	\$ 25,079,591	\$ 23,826,301	\$ 22,419,852
Plus/(less) amounts excluded:					
Net amortized (discount)/premium and issuance costs	—	—	—	—	—
Total net proceeds/principal	27,360,819	26,445,665	25,079,591	23,826,301	22,419,852
Less net proceeds/principal of direct debt excluded from statutory debt limit:					
Central artery project bonds	(1,092,519)	(1,110,195)	(1,150,296)	(1,197,127)	(1,241,263)
Accelerated bridge program	(2,429,000)	(2,380,740)	(2,192,930)	(2,195,004)	(1,756,395)
County debt assumed.....	—	—	—	—	—
(Premium)/discount	—	—	—	—	—
Grant anticipation notes (2).....	—	—	—	—	(178,390)
School Modernization and Reconstruction Trust Bonds...	(598,985)	(632,348)	(652,197)	(689,446)	(723,917)
Convention center bonds	(552,110)	(575,420)	(597,630)	(618,705)	(638,700)
MBTA forward funding bonds	(207)	(207)	(207)	(207)	(207)
Special obligation gas bonds	(105,230)	(128,270)	(170,735)	(210,635)	(249,705)
Rail enhancement program bonds (4)	(1,131,105)	(644,540)	—	—	—
Outstanding direct debt, net proceeds/principal	21,451,663	20,973,945	20,315,596	18,915,177	17,631,275
Statutory debt limit*	22,875,433	21,786,126	20,748,692	19,760,659	18,819,675
Debt margin (debt limit less direct debt).....	<u>\$ 1,423,770</u>	<u>\$ 812,181</u>	<u>\$ 433,096</u>	<u>\$ 845,482</u>	<u>\$ 1,188,400</u>
Debt margin as a percentage of direct debt limit.....	<u>6.2%</u>	<u>3.7%</u>	<u>2.1%</u>	<u>4.3%</u>	<u>6.3%</u>

(1) Exclusive of the Massachusetts School Building Authority debt.

(2) Inclusive of crossover refunding amounts.

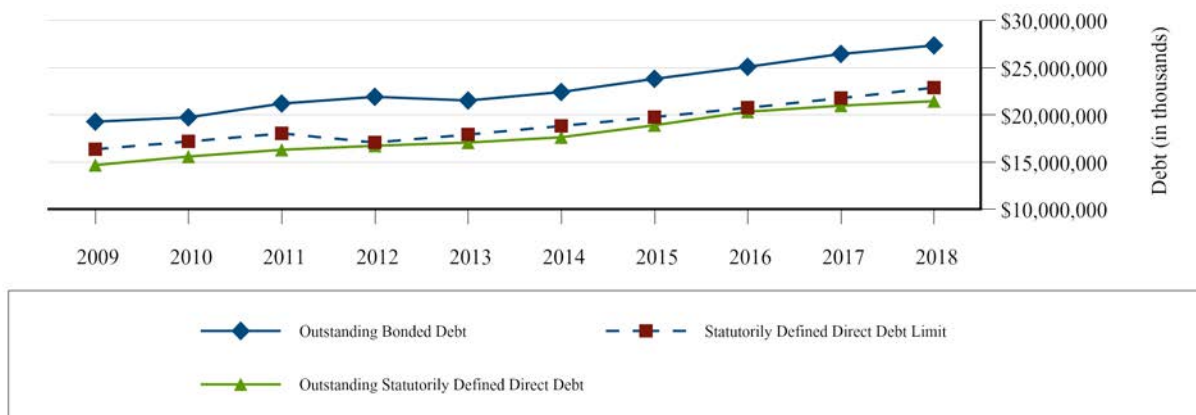
(3) For fiscal 2009 through 2012, debt outstanding was defined in state finance law as net proceeds of debt issued. State finance law was amended, effective January 1, 2013, to change the statutory definition of outstanding debt from net proceeds to principal. Therefore, fiscal years prior to 2013 are 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

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**Outstanding Bonded Debt, Statutory Direct Debt and Statutory Debt Limit
2009 - 2018**



2013 (3)	2012	2011	2010	2009
\$ 21,513,039	\$ 21,433,553	\$ 20,875,056	\$ 19,509,819	\$ 19,047,679
—	474,130	335,078	216,688	216,890
21,513,039	21,907,683	21,210,134	19,726,507	19,264,569
(1,303,013)	(1,342,841)	(1,356,606)	(1,243,250)	(1,401,581)
(1,088,605)	(1,095,385)	(676,125)	—	—
—	(75)	(150)	(225)	(300)
—	(474,130)	(335,078)	216,688	216,890
(349,100)	(510,385)	(666,790)	(997,467)	(1,134,797)
(764,337)	(795,009)	(824,279)	(894,502)	(921,751)
(638,700)	(638,700)	(643,715)	(643,715)	(643,715)
(207)	(207)	(44,472)	(165,559)	(231,000)
(296,395)	(337,545)	(371,665)	(419,785)	(456,984)
—	—	—	—	—
17,072,682	16,713,406	16,291,254	15,578,692	14,691,331
17,923,500	17,070,000	18,042,424	17,183,261	16,365,011
\$ 850,818	\$ 356,594	\$ 1,751,170	\$ 1,604,569	\$ 1,673,680
4.7%	2.1%	9.7%	9.3%	10.2%

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 Ratios)

	2018	2017**	2016**	2015	2014
Highway Bonds					
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.					
<u>Pre-2010 Bond Issues</u>					
Tax Receipts.....	191,183	\$ 191,820	\$ 190,803	\$ 187,913	\$ 187,467
Operating Expenses	N/A	N/A	N/A	N/A	N/A
Net Available Revenues	\$ 191,183	\$ 191,820	\$ 190,803	\$ 187,913	\$ 187,467
Annual Debt Service.....	29,825	\$ 51,276	\$ 50,906	\$ 52,225	\$ 52,228
Debt Service Coverage Ratio.....	6.41	3.74	3.75	3.60	3.59
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
<u>Post-2010 Bond Issues (Includes Revenues in Excess of Those Needed to Pay Debt Service on Pre-2010 Highway Bonds)</u>					
Receipts.....	\$ 1,362,788	\$ 1,326,734	\$ 1,294,357	\$ 1,283,248	\$ 1,210,405
Operating Expenses	N/A	N/A	N/A	N/A	N/A
Net Available Revenues	\$ 1,362,788	\$ 1,326,734	\$ 1,294,357	\$ 1,283,248	\$ 1,210,405
Annual Debt Service.....	149,968	\$ 129,024	\$ 94,859	\$ 81,054	\$ 69,921
Debt Service Coverage Ratio.....	9.09	10.28	13.65	15.83	17.31
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
Convention Center Bonds					
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.....	146,872	\$ 133,789	\$ 134,806	\$ 124,937	\$ 109,879
Operating Expenses	N/A	N/A	N/A	N/A	N/A
Net Available Revenues	\$ 146,872	\$ 133,789	\$ 134,806	\$ 124,937	\$ 109,879
Annual Debt Service.....	54,474	\$ 54,540	\$ 54,540	\$ 52,852	\$ 34,486
Debt Service Coverage Ratio.....	2.70	2.45	2.47	2.36	2.99
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
Grant Anticipation Notes (GANS)					
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.					
<u>Post 2010 GANS (Includes Revenues in Excess of those Needed to Pay Debt Service on Pre-2010 Highway Bonds)</u>					
Receipts.....	\$ 1,756,726	\$ 1,734,397	\$ 1,707,187	\$ 1,556,243	\$ 1,562,732
Operating Expenses	N/A	N/A	N/A	N/A	N/A
Net Available Revenues	\$ 1,756,726	\$ 1,734,397	\$ 1,707,187	\$ 1,556,243	\$ 1,562,732
Annual Debt Service.....	83,804	\$ 80,486	\$ 76,049	\$ 33,472	\$ 4,268
Debt Service Coverage Ratio.....	20.96	21.55	22.45	46.49	366.15
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

*Uninsured rating, if available.

**Restated

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2013	2012	2011	2010	2009
\$ 186,638 N/A	\$ 190,129 N/A	\$ 189,763 N/A	\$ 188,666 N/A	\$ 189,246 N/A
\$ 186,638	\$ 190,129	\$ 189,763	\$ 188,666	\$ 189,246
\$ 58,922 3.17 AA+, Aa1, AAA	\$ 58,939 3.23 AA+, Aa1, AAA	\$ 59,453 3.19 AA, Aa1, AAA	\$ 58,931 3.2 AA, Aa2, AA+	\$ 58,924 3.21 AA+, Aa3, AA+
\$ 1,170,297 N/A	\$ 1,121,709 N/A	\$ 626,619 N/A		
\$ 1,170,297	\$ 1,121,709	\$ 626,619		
\$ 58,108 20.14 NA, Aaa, AAA	\$ 32,623 34.38 NA, Aaa, AAA	\$ 14,318 43.76 NA, Aaa, AAA		
\$ 100,631 N/A	\$ 94,234 N/A	\$ 84,905 N/A	\$ 75,432 N/A	\$ 73,918 N/A
\$ 100,631	\$ 94,234	\$ 84,905	\$ 75,432	\$ 73,918
\$ 34,486 2.76 NA, A1, A	\$ 34,486 2.59 NA, A1, A	\$ 34,486 2.40 NA, A1, A	\$ 34,486 2.08 NA, A1, A	\$ 34,486 2.04 NA, A1, A
\$ 1,575,266 N/A	\$ 1,674,485 N/A	\$ 909,546 N/A		
\$ 1,575,266	\$ 1,674,485	\$ 909,546		
\$ 4,973 316.76 AA+, Aa2, AAA	\$ 4,271 392.06 AA+, Aa2, AAA	\$ 2,039 446.01 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)

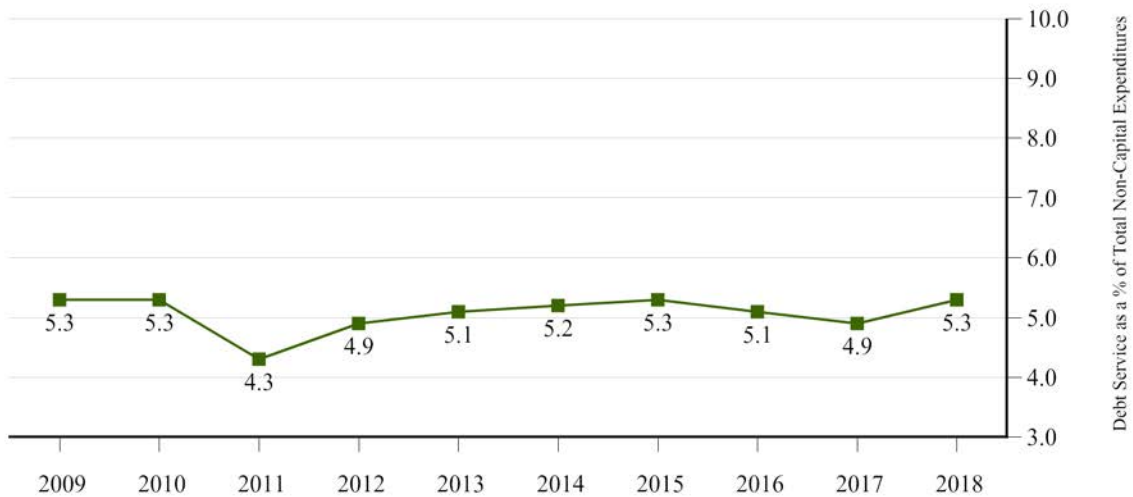
Fiscal year ended June 30	Debt service (1)	Total non-capital expenditures (2)	Ratio (%)
2018	\$ 3,040,834	\$ 56,925,468	5.3
2017	2,667,043	54,239,919	4.9
2016	2,720,117	53,748,227	5.1
2015*	2,703,200	51,171,135	5.3
2014*	2,534,285	48,312,870	5.2
2013*	2,351,074	45,733,298	5.1
2012*	2,160,589	44,070,405	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

- (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 2009 - 2018



**Component Units Revenue Bond Coverage
For the Last Ten Fiscal Years**

(Amounts in thousands)

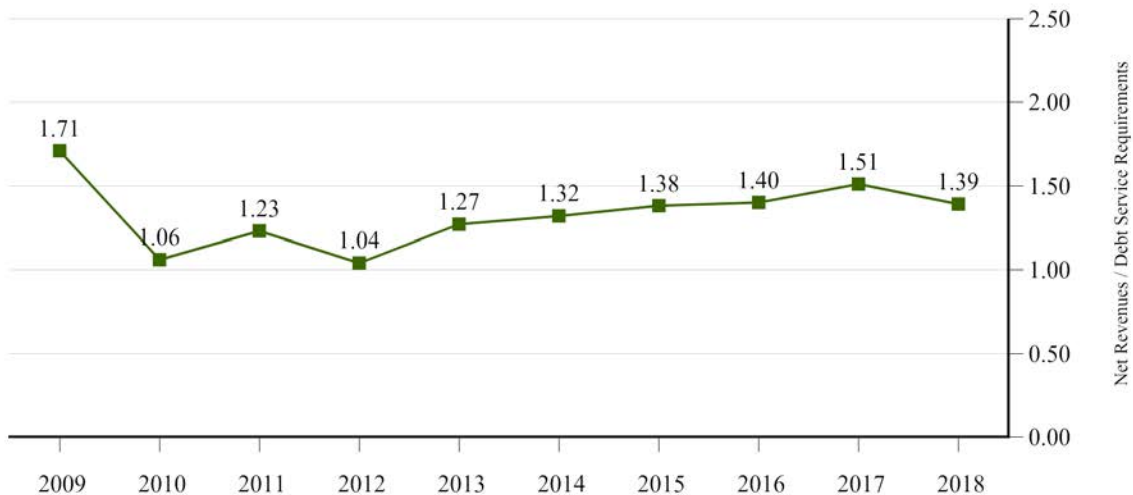
Fiscal year ended June 30	Net Revenues ⁽¹⁾	Debt service requirements ⁽²⁾	Coverage Ratio (%)
2018	\$ 1,831,742	\$ 1,322,491	1.39
2017	1,763,564	1,169,651	1.51
2016	1,817,135	1,298,267	1.40
2015	1,950,292	1,417,420	1.38
2014	1,481,374	1,126,392	1.32
2013	1,585,500	1,244,358	1.27
2012	1,584,013	1,517,899	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

- (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 2009 - 2018



Ten-Year Schedule of Massachusetts and United States Resident Population

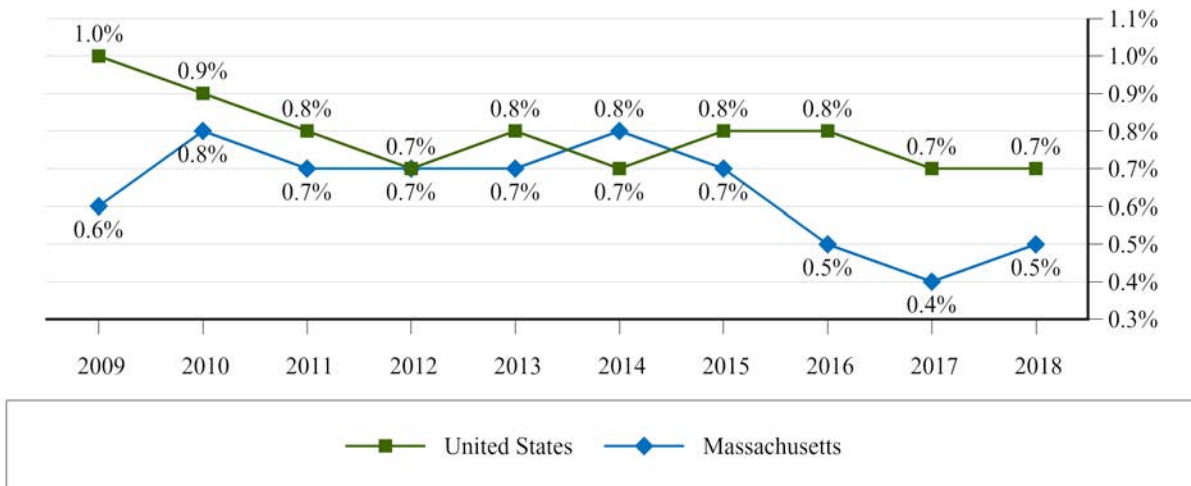
(Amounts in thousands)

Beginning of Fiscal Year	United States ⁽¹⁾	% Change	Massachusetts Resident Population ⁽¹⁾	% Change	Massachusetts as % of U.S.
2018	325,719	0.7%	6,860	0.5%	2.1%
2017	323,406	0.7%	6,824	0.4%	2.1%
2016	321,040	0.8%	6,794	0.5%	2.1%
2015	318,623	0.8%	6,758	0.7%	2.1%
2014	316,235	0.7%	6,711	0.8%	2.1%
2013	313,993	0.8%	6,660	0.7%	2.1%
2012	311,644	0.7%	6,612	0.7%	2.1%
2011	309,338	0.8%	6,565	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%

(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
2009 - 2018**



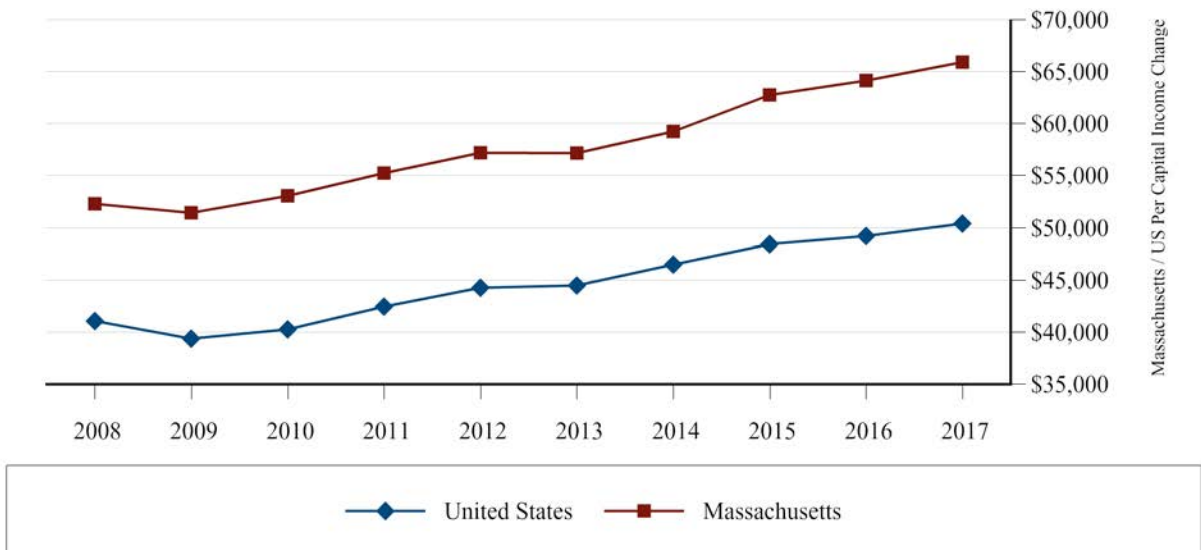
Ten-Year Schedule of Massachusetts and United States Resident Per Capita Net Income

Calendar year	United States	% Change	Massachusetts	% Change	Massachusetts as % of U.S.
2017	\$ 50,392	2.4 %	\$ 65,890	2.8 %	130.8%
2016	49,204	1.6 %	64,122	2.2 %	130.3%
2015	48,429	4.2 %	62,755	6.0 %	129.6%
2014	46,486	4.5 %	59,226	3.6 %	127.4%
2013	44,489	0.5 %	57,145	(0.1)%	128.4%
2012	44,283	4.3 %	57,178	3.5 %	129.1%
2011	42,463	5.4 %	55,230	4.1 %	130.1%
2010	40,278	2.3 %	53,058	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%

Source: Bureau of Economic Analysis, US Department of Commerce. Prior years restated due to revised estimates released on March 22, 2018.

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**Massachusetts and United States Estimated Per Capita Net Income
2008 - 2017**



**Ten-Year Schedule of Fiscal Year Annual Average Civilian Labor Force,
Unemployment and Unemployment Rates
For Massachusetts and the United States**

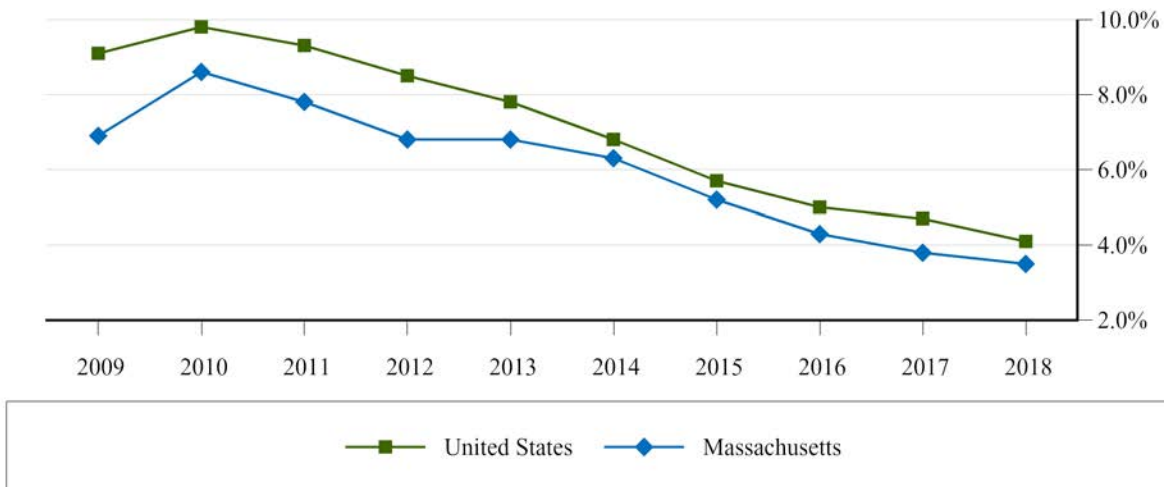
(Amounts in thousands)

Fiscal Year	Massachusetts			United States			Massachusetts Rate as % of U.S. Rate
	Labor Force	Unemployment	Unemployment Rate %	Labor Force	Unemployment	Unemployment Rate %	
2018	3,680	130	3.5%	161,138	6,626	4.1%	85.4%
2017	3,641	138	3.8%	159,792	7,439	4.7%	81.4%
2016	3,590	156	4.3%	158,028	7,891	5.0%	87.0%
2015	3,592	188	5.2%	156,618	8,905	5.7%	92.1%
2014	3,531	221	6.3%	155,476	10,515	6.8%	92.5%
2013	3,504	238	6.8%	155,346	12,079	7.8%	87.4%
2012	3,472	237	6.8%	154,297	13,153	8.5%	80.1%
2011	3,472	270	7.8%	153,615	14,252	9.3%	83.8%
2010	3,478	299	8.6%	153,906	15,009	9.8%	88.2%
2009	3,468	239	6.9%	154,559	14,094	9.1%	75.6%

Source: Federal Bureau of Labor Statistics, September, 2018. Seasonally adjusted. Previous data has been updated by the Federal Bureau of Labor Statistics

See Independent Auditors' Report

**Massachusetts and United States Average Unemployment Rates
FY2009 to FY2018**



Largest Private Sector Massachusetts Employers 2018 and 2009
(Alphabetical Order)

2018			2009		
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
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
Harvard University	Cambridge	University	Harvard University	Cambridge	University
Massachusetts Institute of Technology	Cambridge	University	Massachusetts Institute of Technology	Cambridge	University
Partners Healthcare Systems, Inc.	Boston	Hospital	Raytheon Company	Lexington	Electronics / Defense
Raytheon Company	Lexington	Electronics / Defense	S & S Credit Company, Inc.	Quincy	Supermarket
The Stop & Shop Supermarkets, Co.	Quincy	Supermarket	Shaw's Supermarkets, Inc.	West Bridgewater	Supermarket
Shaw's Supermarkets, Inc.	West Bridgewater	Supermarket	Southcoast Hospitals Group	New Bedford	Hospital
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
The TJX Companies, Inc.	Framingham	Retail	Tufts University	Boston	University
Tufts University	Boston	University	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 2018 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.

See Independent Auditors' Report

Full Time Equivalent Employees
By Function / Program
Last Ten Years

Functions/Programs	2018	2017	2016	2015 *	2014
General government.....	6,855	6,905	7,017	7,696	7,637
Judiciary.....	7,229	7,208	7,263	7,264	7,195
Energy and environmental affairs.....	2,533	2,509	2,539	2,689	2,629
Health and human services	22,104	21,817	21,557	22,060	21,496
Transportation and construction	3,527	3,482	4,004	4,357	4,301
Education	821	815	907	970	1,099
Public safety and homeland security	16,502	16,522	16,868	17,057	17,215
Housing and economic development.....	918	818	844	884	891
Higher Education:					
University of Massachusetts.....	14,737	15,032	15,130	14,670	14,066
State universities.....	5,233	5,186	5,050	5,036	4,969
Community colleges.....	4,917	5,066	5,032	5,077	4,990
Totals.....	85,376	85,360	86,211	87,760	86,488
Percentage change	—%	(1.0)%	(1.8)%	1.5%	(0.8)%

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 Independent Auditors' Report

2013	2012	2011	2010	2009	Change - 2018 from 2009
7,627	7,408	8,020	8,280	6,277	9.2 %
7,297	7,087	7,111	7,388	7,821	(7.6)%
2,684	2,685	2,737	2,783	2,955	(14.3)%
21,996	21,042	21,011	21,401	22,605	(2.2)%
4,243	4,230	4,209	4,127	3,043	15.9 %
928	922	1,037	1,575	844	(2.7)%
16,907	16,503	15,785	15,857	13,951	18.3 %
868	845	831	846	2,314	(60.3)%
14,688	14,159	14,159	14,031	13,814	6.7 %
4,856	4,747	4,487	4,282	4,650	12.5 %
5,111	4,834	4,684	4,276	4,781	2.8 %
87,205	84,462	84,071	84,846	83,055	2.8 %
3.2%	(0.9)%	2.2%	2.2%	(0.7)%	

**Average Annual Medicaid Caseload and
Medicaid Expenditures - Fund Perspective
Last Ten Fiscal Years**

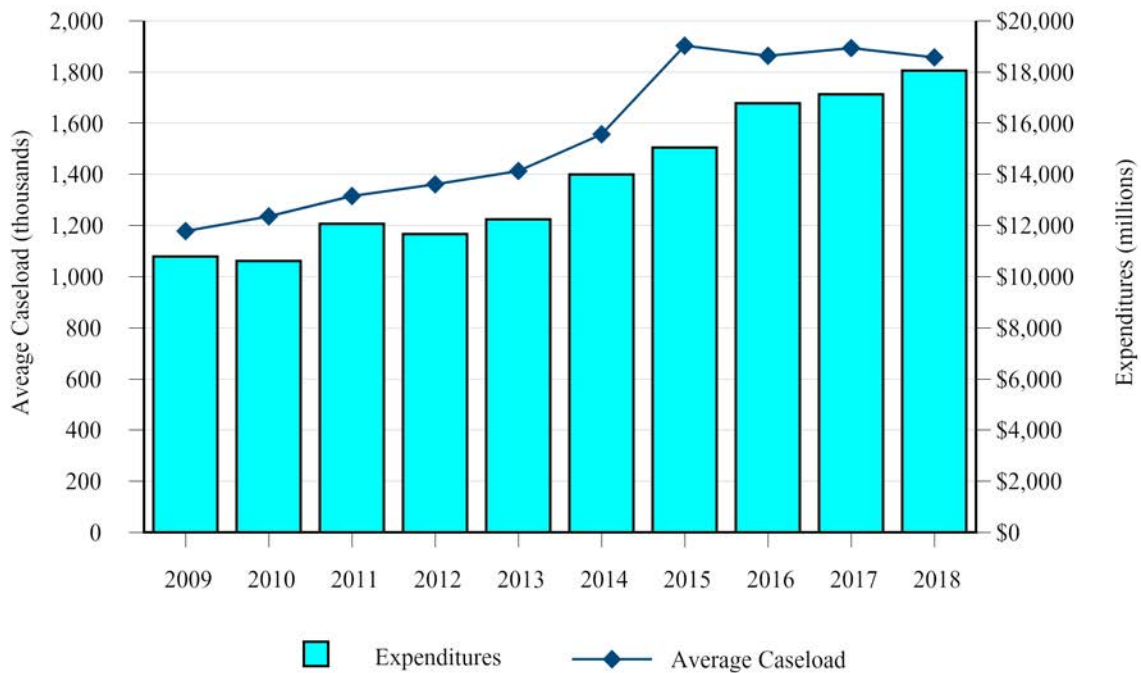
(Caseload amount in thousands, Expenditure amounts in Millions)

Fiscal year ended June 30	Average Annual Caseload	Medicaid expenditures	Average Expenditures per Case
2018*	1,857	\$18,106	\$9,750
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

* Includes members in transitional coverage program starting January 1, 2014.

See Independent Auditors' Report

Average Annual Caseload and Medicaid Expenditures 2009 - 2018



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
2017	3,204	15,618	9,051	44,761	72,634	1.16 %	85.9%	14.1%
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%

*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

See Independent Auditors' Report

**Massachusetts Real Property Owned and Leased
Annual Inventory, Acreage, Improvements and Square Footage
Last Ten Years**

Functions/Programs	Survey Year 2018	Survey Year 2017	Survey Year 2016	Survey Year 2015	Survey Year 2014
General Government:					
Total Acreage.....	5,108	4,964	2,488	2,574	3,114
Number of Improvements	287	268	118	173	513
Gross square footage	5,848,109	6,054,449	4,808,125	6,803,498	10,916,681
Judiciary:					
Total Acreage.....	155	154	153	153	149
Number of Improvements	73	75	75	75	74
Gross square footage	4,935,067	5,224,810	4,843,949	4,843,949	5,310,049
Energy and environmental affairs					
Total Acreage.....	689,821	688,129	680,310	674,046	668,631
Number of Improvements	2,352	2,184	2,186	2,186	1,806
Gross square footage	8,410,119	8,214,843	8,134,142	8,134,142	6,507,161
Housing and economic development:					
Total Acreage.....	2	2	2	2	—
Number of Improvements	6	6	6	6	4
Gross square footage	78,012	78,012	78,012	78,012	57,812
Health and human services:					
Total Acreage.....	2,760	2,862	5,568	5,623	5,834
Number of Improvements	455	455	627	627	907
Gross square footage	8,390,655	8,131,022	8,361,435	8,360,310	10,995,096
Transportation and public works:					
Total Acreage.....	7,160	7,195	6,968	6,966	7,014
Number of Improvements	965	952	930	929	675
Gross square footage	6,273,557	6,123,984	5,820,282	4,919,282	1,989,583
Education:					
Total Acreage.....	220	208	208	208	208
Number of Improvements	40	40	40	40	40
Gross square footage	207,633	207,633	207,633	207,633	205,503
Public safety and homeland security:					
Total Acreage.....	12,071	19,271	19,150	19,150	19,166
Number of Improvements	1,100	1,118	1,063	1,014	1,083
Gross square footage	15,176,714	14,998,157	13,845,503	13,376,555	14,402,161
Higher Education:					
Total Acreage.....	5,715	6,770	7,244	7,243	7,128
Number of Improvements	1,136	1,101	1,078	1,076	873
Gross square footage	40,434,772	43,339,713	38,443,057	38,411,260	29,666,140
Totals for Commonwealth (exclusive of Component Units):					
Total Acreage	723,012	729,555	722,091	715,965	711,244
Number of Improvements.....	6,414	6,199	6,123	6,126	5,975
Gross square footage.....	89,754,638	92,372,623	84,542,138	85,134,641	80,050,186
Percentage Change for Commonwealth:					
Acreage.....	(0.9)%	1.0%	0.9 %	0.7%	2.3 %
Improvement.....	3.5 %	1.2%	— %	2.5%	(6.1)%
Gross square footage.....	(2.8)%	9.3%	(0.7)%	6.4%	(1)%

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>

See Independent Auditors' Report

Survey Year 2013	Survey Year 2012	Survey Year 2011	Survey Year 2010	Survey Year 2009
3,101	3,039	2,993	2,373	2,495
333	279	255	227	240
9,076,550	7,690,761	7,206,548	6,797,819	6,660,792
148	148	141	141	141
73	73	68	68	69
4,700,920	4,700,920	4,787,564	4,787,564	4,826,836
652,400	642,799	627,286	623,952	606,662
2,192	2,191	2,182	2,183	2,170
7,287,961	7,283,666	7,295,922	7,299,322	7,246,280
2	2	2	2	2
5	5	6	6	6
68,412	68,412	77,642	77,642	77,642
5,829	6,407	6,449	7,196	7,166
792	855	866	866	902
9,759,611	10,923,090	10,834,266	10,809,259	11,214,034
6,965	6,972	7,013	6,966	7,050
921	919	918	918	915
4,876,689	4,876,689	4,873,783	4,876,689	4,876,936
208	208	233	233	233
43	43	43	43	43
272,352	272,352	272,352	272,352	272,352
19,169	19,172	19,158	18,693	18,331
997	990	991	1,029	1,028
12,213,112	12,191,229	12,141,396	12,685,447	12,632,897
7,473	7,254	7,178	7,169	7,151
1,009	1,007	987	975	937
32,594,800	32,523,400	32,144,815	32,117,854	31,101,329
695,295	686,001	670,454	666,725	649,231
6,365	6,362	6,316	6,315	6,310
80,850,407	80,530,519	79,634,288	79,723,948	78,909,098
1.4%	2.3%	0.6%	2.7%	2.5%
—%	0.7%	—%	0.1%	0.1%
0.4%	1.1%	(0.1)%	1%	(0.6)%

Massachusetts Public Higher Education
Enrollment and Degrees Conferred
Last Ten Academic Years

Academic Year	Fall 2017	Fall 2016	Fall 2015	Fall 2014	Fall 2013
<u>ENROLLMENT</u>					
<u>University System</u>					
Undergraduate (FTE)	56,275	51,209	50,816	49,725	48,893
Graduate (FTE)	18,284	12,769	12,517	12,576	12,442
System Enrollment	74,559	63,978	63,333	62,301	61,335
<u>State University System</u>					
Undergraduate (FTE)	36,074	35,909	34,700	35,507	35,429
Graduate (FTE)	5,694	5,641	8,007	7,507	7,704
System Enrollment	41,768	41,550	42,707	43,014	43,133
<u>Community College System</u>					
Undergraduate (FTE)	52,306	55,336	59,827	58,764	64,584
<u>DEGREES CONFERRED</u>					
	2018	2017	2016	2015	2014
<u>University System</u>					
Certificates (MD)	571	505	423	435	376
Associates	82	73	85	103	96
Bachelors	13,037	12,754	12,125	11,841	11,544
Masters	4,013	3,771	3,669	3,787	3,559
Doctoral	601	603	575	504	501
Certificate of Advance Graduate Study	71	76	86	81	77
Post-Baccalaureate Certificate	708	842	769	738	691
First Professional	49	50	53	64	79
Total Degrees	19,132	18,674	17,785	17,553	16,923
<u>State University System</u>					
Certificates	28	35	40	29	34
Bachelors	8,867	8,775	8,762	8,534	8,184
Masters	2,388	2,283	2,353	2,116	2,478
Certificate of Advance Graduate Study	85	83	73	64	113
Post-Baccalaureate Certificate	303	359	283	304	327
Total Degrees	11,671	11,535	11,511	11,047	11,136
<u>Community College System</u>					
Certificates	3,332	3,147	3,131	3,288	3,365
Associates	10,417	11,067	11,318	11,517	11,341
Total Degrees	13,749	14,214	14,449	14,805	14,706
Total All Systems - Degrees	44,552	44,423	43,745	43,405	42,765

Source: Massachusetts Board of Higher Education. Enrollment information based at the start of the academic year.

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Fall 2012	Fall 2011	Fall 2010	Fall 2009	Fall 2008	Change - 2017 from 2008
48,136	47,432	48,018	44,543	42,768	31.6 %
12,202	12,048	11,734	10,177	9,460	93.3 %
60,338	59,480	59,752	54,720	52,228	42.8 %
34,773	35,639	36,721	34,129	33,040	9.2 %
7,894	6,224	7,227	4,582	4,495	26.7 %
42,667	41,863	43,948	38,711	37,535	11.3 %
62,445	64,586	64,971	60,602	54,228	(3.5)%
2013	2012	2011	2010	2009	% Change - 2018 from 2009
426	348	246	329	280	103.9 %
121	97	100	111	103	(20.4)%
10,910	10,399	9,958	9,362	8,763	48.8 %
3,442	3,360	3,242	3,029	2,882	39.2 %
486	450	414	400	381	57.7 %
62	89	87	79	70	1.4 %
664	659	550	509	173	309.2 %
103	43	47	—	—	N/A
16,214	15,445	14,644	13,819	12,652	51.2 %
37	29	35	572	605	(95.4)%
8,024	7,722	7,190	6,886	6,621	33.9 %
2,327	2,404	2,376	2,467	2,343	1.9 %
108	143	116	170	157	(45.9)%
371	362	408	362	406	(25.4)%
10,867	10,660	10,125	10,457	10,132	15.2 %
2,929	2,888	3,020	2,770	2,587	28.8 %
10,772	10,404	9,693	9,257	8,549	21.9 %
13,701	13,292	12,713	12,027	11,136	23.5 %
40,782	39,397	37,482	36,303	33,920	31.3 %

Calculation of Transfers: Stabilization Fund*

June 30, 2018

(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 Fund	Commonwealth Transportation Fund	Gaming Local Aid	Marijuana Regulation Fund	Total
Budgeted Fund Undesignated Balances (Consolidated Net Surplus).....	\$ 95,754	\$ 129,826	\$ 3,668	\$ 39	\$ 229,286
<u>Disposition of Consolidated Net Surplus per Section 65 of Ch. 273 of the Acts of 2018:</u>					
To the Massachusetts Community Preservation Trust Fund.....	(10,000)	—	—	—	(10,000)
To the Massachusetts Life Sciences Investment Fund.....	(10,000)	—	—	—	(10,000)
Remaining Consolidated Net Surplus to be Deposited in Stabilization Fund	\$ 75,754	\$ 129,826	\$ 3,668	\$ —	\$ 209,287

Stabilization Balance Reconciliation:

Balance as of July 1, 2017	\$ 1,300,678
Capital Gains Tax Transfers to Stabilization Fund during FY2018 per Chapter 29, Section 5G	513,908
Minus Capital Gains Tax Transfers from Stabilization Fund to State Pension and State Retiree Benefits Trust Funds	(51,390)
Transfer to Stabilization Fund from Abandoned Property Revenue Growth from Prior Fiscal Year	13,450
Transfer of certain tax revenues to the Stabilization Fund	272
Stabilization Fund investment income.....	15,094
Remaining Consolidated Net Surplus Deposited in Stabilization Fund, per Calculation Above	209,287
Stabilization Fund Balance as of June 30, 2018	\$ 2,001,299
Memo: Change in Stabilization Fund Balance, FY17-18.....	\$ 700,621

* Excludes funds with no FY18 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, 2018

(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	\$ 2,001,299
Allowable Stabilization Fund balance	<u>6,572,883</u>
Stabilization Fund excess, if any, transferable to Tax Reduction Fund	<u>\$ —</u>

Part 2: Status of Stabilization Fund after transfers:

Stabilization Fund balance	\$ 2,001,299
Transfer to Tax Reduction Fund	<u>—</u>
Stabilization Fund balance after transfer to Tax Reduction Fund	<u>\$ 2,001,299</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>

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MASSACHUSETTS GENERAL INFORMATION

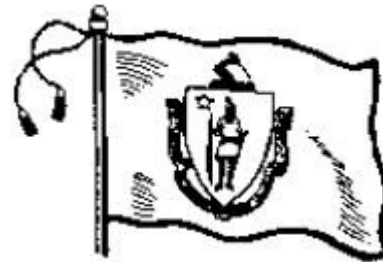
Admitted to Union (6th State): 1788
Population: 6,859,819

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.”

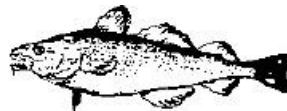
The State Flag is white, bearing on both sides a representation of the coat of arms. It was adopted in its final form in 1971; before that, the obverse side depicted a pine tree.

The State Flower



The Mayflower

The State Fish



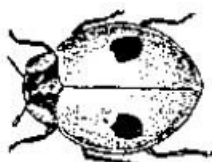
The Cod, a soft-finned fish, usually 10-20lbs. A sculpture of a cod hangs in the House of Representatives as a tribute to this useful aquatic creature.

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