



## **UNIVERSITY OF MASSACHUSETTS**

Independent Auditors' Report as Required by Title 2 U.S. Code of Federal  
Regulations Part 200, *Uniform Administrative Requirements, Cost  
Principles, and Audit Requirements for Federal Awards and Government  
Auditing Standards* and Related Information

Year ended June 30, 2023

(With Independent Auditors' Report Thereon)

## UNIVERSITY OF MASSACHUSETTS

Independent Auditors' Report as Required by Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards and Government Auditing Standards* and Related Information

Year ended June 30, 2023

### Table of Contents

	<b>Page</b>
<b>Financial Statements</b>	
University Administration	2
Letter from the President	3
Independent Auditors' Report	4–6
Management's Discussion and Analysis (Unaudited)	7–21
Financial Statements and Related Notes	22–77
Required Supplementary Information (unaudited)	78–79
<b>Supplementary Information</b>	
Schedule of Expenditures of Federal Awards	80–114
Notes to the Schedule of Expenditures of Federal Awards	115–116
<b>Reports on Internal Control and Compliance</b>	
Independent Auditors' Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i>	117–118
Independent Auditors Report on Compliance for Each Major Program; and Report on Internal Control Over Compliance Required by the Uniform Guidance; and Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance	119–121
<b>Reports on Internal Control and Compliance:</b>	
Schedule of Findings and Questioned Costs	122

# University Administration

As of November 2023

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# Letter from the President

I am pleased to present the annual financial report of the University of Massachusetts, which details the university's financial position and activities over the past year and highlights our steadfast commitment to active fiscal management and accountability.

Despite the challenging economic environment of the last few years, we have maintained strong enrollment of nearly 74,000 students and graduated the Class of 2023 with roughly 22,000 students earning degrees. UMass continues to be the largest contributor of college graduates entering the Massachusetts economy.

Our Amherst, Boston, Dartmouth, and Lowell campuses continued to be nationally ranked top-tier institutions by the *U.S. News & World Report*, and UMass Chan Medical School was ranked among the best in the country.

Our focus continues to be on ensuring that UMass provides affordable, accessible, and excellent educational opportunities. In order to accomplish these goals, the university has employed innovative strategies ranging from improved data analytics to procurement reforms resulting in reduced costs to UMass.

These efforts have distinguished UMass as a well-managed university, and external evaluators have taken notice. The university has maintained an Aa2 credit rating with a stable outlook based on strong management, excellent strategic positions, and disciplined fiscal oversight.

I am proud of what our administration, faculty and staff have achieved this past fiscal year, and I'm confident that our university community is prepared to face the opportunities and challenges that lie ahead. Together, we will ensure UMass continues to fulfill its critical mission to "provide an affordable and accessible education of high quality and to conduct programs of research and public service that advance knowledge and improve the lives of the people of the Commonwealth, the nation, and the world."

Sincerely,

Martin T. Meehan  
President

# Report of Independent Auditors



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

## Independent Auditors' Report

The Board of Trustees  
University of Massachusetts:

### Report on the Audit of the Financial Statements

#### *Opinions*

We have audited the financial statements of the business-type activities and the aggregate discretely presented component units of the University of Massachusetts (the University), as of and for the years ended June 30, 2023 and 2022, and the related notes to the financial statements, which collectively comprise the University's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the aggregate discretely presented component units of the University, as of June 30, 2023 and 2022, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with U.S. generally accepted accounting principles.

#### *Basis for Opinions*

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the University and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions. The financial statements of the University of Massachusetts Foundation, Inc. were not audited in accordance with *Government Auditing Standards*.

#### *Emphasis of Matter*

As discussed in Note 1, the financial statements of the University are intended to present the financial position, changes in financial position, and, where applicable, cash flows of only that portion of the business-type activities, each major fund, and the aggregate discretely presented component units of the Commonwealth of Massachusetts that is attributable to the transactions of the University. They do not purport to, and do not, present fairly the financial position of the Commonwealth of Massachusetts as of June 30, 2023 and 2022, the changes in its financial position, or, where applicable, its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles. Our opinions are not modified with respect to this matter.

#### *Responsibilities of Management for the Financial Statements*

Management is responsible for the preparation and fair presentation of the financial statements in accordance with U.S. generally accepted accounting principles, and for 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' Responsibilities for the Audit of the Financial Statements*

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and Government Auditing Standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 University's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

### *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 be presented to supplement the basic financial statements. Such information is the responsibility of management and, 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 required supplementary information in accordance with GAAS, 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 audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### *Other Information*

Management is responsible for the other information included in the annual financial report. The other information comprises the University administration and letter from the president but does not include the basic financial statements and our auditors' report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audits of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work



performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

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

In accordance with *Government Auditing Standards*, we have also issued our report dated December 12, 2023 on our consideration of the University'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 University'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 University's internal control over financial reporting and compliance.

*KPMG LLP*

Boston, Massachusetts  
December 12, 2023







# Management's Discussion and Analysis (unaudited)

June 30, 2023

## Introduction

This Management's Discussion and Analysis (MD&A) provides an overview of the financial position and activities of the University of Massachusetts (the University or UMass) for the fiscal years ended June 30, 2023, 2022 and 2021, and should be read in conjunction with the accompanying financial statements and notes. The financial statements, notes and this discussion are the responsibility of management.

The University of Massachusetts was established in 1863 as the Massachusetts Agricultural College, located in Amherst. Since then it has grown into a system that is nationally and internationally known for the quality of its academic programs and the scope and excellence of its faculty research. From Nobel Prize-winning research in gene-silencing to research in critical areas such as renewable energy, nanotechnology, cybersecurity, life sciences and marine science, the University of Massachusetts is expanding the boundaries of knowledge and opening doors of discovery that benefit the Commonwealth of Massachusetts (Commonwealth), the nation and the world. UMass consistently ranks as one of the best, most innovative universities in the world.

**UMass Amherst** is the flagship campus of the University. True to its land-grant roots, UMass Amherst is engaged in research and creative work in all fields and is classified by the Carnegie Foundation for the Advancement of Teaching as a doctoral university with "very high research activity". Major areas of emphasis include climate science, food science, alternative energy, nano manufacturing, polymer science,

computer science and linguistics. UMass Amherst is ranked 32nd among the nation's top public schools in the 2024 *U.S. News & World Report*.

**UMass Boston** is nationally recognized as a model of excellence for urban public research universities. Located on Boston Harbor, it is the metropolitan area's only public research university. UMass Boston's distinguished intellectual contributions span the social sciences, education, health and wellness. With a student population that represents over 100 countries, UMass Boston is committed to educating people from modest-income backgrounds, first-generation college students and those from urban areas, here and abroad.

**UMass Dartmouth** distinguishes itself as a vibrant university dedicated to engaged learning and innovative research resulting in personal and lifelong student success. Located on 710 acres on the south coast of Massachusetts, UMass Dartmouth offers students high-quality academic programs through undergraduate majors and professional and doctoral programs, including the state's only public law school.

**UMass Law**, which is part of UMass Dartmouth and the only public law school in Massachusetts, is committed to providing an excellent, affordable, and accessible legal education that balances legal theory, doctrine, skills, experience, and professionalism. UMass Law prepares students to thrive in a changing profession and advances justice through research, writing, teaching, learning, and practice. UMass Law's February 2023 Massachusetts first-time bar passage rate was 57%, the fourth highest passage rate of the Massachusetts law schools.

**UMass Lowell** is ranked 84th among the nation's top public schools within the 2024 *U.S. News & World Report*, with programs supporting workforce and economic development through innovation, entrepreneurship and public-private partnerships. UMass Lowell prepares students emphasizing experiential learning through cooperative education, service and research.

**UMass Chan Medical School** founded in 1962 and situated in Worcester, is the Commonwealth's only public medical school and the University's Nobel-prize winning health sciences education and research campus. In September of 2021, the Medical School received an endowment gift of \$175 million from The Morningside Foundation with annual distributions from the fund to be used for unrestricted purposes by the Medical School. In recognition of this transformational gift, the Medical School was renamed to the UMass Chan Medical School (UMass Chan). UMass Chan's three graduate schools were also renamed in recognition of this gift: the T.H. Chan School of Medicine, the Morningside Graduate School of Biomedical Sciences, and the Tan Chingfen Graduate School of Nursing. Consistently ranked by *U.S. News & World Report* in the top 10 percent of medical schools in the U.S. for primary care training, UMass Chan has remained true to its founding mission while also becoming globally recognized in biomedical research.

Unique among medical schools, UMass Chan is also home to ForHealth Consulting (formally Commonwealth Medicine), a health care consulting division that partners with states and the federal government in delivering health services to vulnerable populations; and MassBiologics, the only non-profit, FDA-licensed manufacturer of vaccines and biologics in the nation.

**UMass Global**, in September of 2021, the University acquired Brandman University to expand educational opportunities for adult learners. This agreement officially launched UMass Global (UMG), a nonprofit blended component unit of UMass that delivers expanded online educational opportunities to adult learners in Massachusetts, across the nation and around the globe through a strengthened technology platform and tailored student support services. In addition to providing new educational opportunities, UMass Global also streamlines efforts to build workforce development partnerships with local and national employers, community colleges, other educational partners, non-profits, government agencies, and the U.S. military.



## Financial Management

### Accountability Framework

The University has strengthened its long-term fiscal outlook by adopting a framework for financial accountability. The framework is based on four key tenets:

- **Oversight:** independent and objective assurance that analyzes data, processes, policies and controls
- **Internal Controls:** standard processes to provide reasonable assurance regarding achievement of objectives
- **Transparency:** reliable, timely information that is accessible and understandable
- **Risk Management:** systematic approach to identifying, assessing and managing risks across the organization.

FIGURE 1 –UMass Financial Accountability Framework



Through the accountability framework, the University continues to implement proactive financial management practices including:

- Maturing our systemwide Enterprise Risk Management Program to enable risk-informed prioritization of strategies and initiatives;
- Developing and evaluating multi-year financial forecasts to guide policy and programmatic decisions;
- Enhancing the functionality of UM-Plan, the University's budgeting application, to increase the transparency of budgeting;
- Reporting of complete and accurate financial results through a quarterly close process;
- Developing and evaluating quarterly projections to monitor performance and make resulting operational adjustments;
- Implementing real-time tracking and reporting of student admissions and enrollment data by student type and residency to quickly observe trends that may impact campus projections;

- Increasing level of proactive resource demand management, contract re-negotiation and sourcing efforts to limit cost exposures to the campuses;
- Implementing and tracking creative, high-impact cost containment strategies across our campuses, including expanding the University's shared services initiatives including implementation of a systemwide travel and expense platform;
- Updating and implementing a systemwide business and travel expense policy to increase transparency, enhance fiscal management and create consistency across our campuses;
- Implementing a capital policy and associated administrative standards to guide the development and implementation of campus and University master and five-year capital plans;
- Developing a reporting methodology for deferred maintenance targets and deploying a dashboard to track progress in meeting these targets;
- Implementing a reserve policy to mitigate unforeseen events, advance University priorities, and maintain strong credit ratings;
- Regularly tracking a suite of key financial ratios including operating margin, operating cash flow margin, operating liquidity, debt service and financial leverage ratios to evaluate the University's fiscal health and performance against peer institutions; and
- Launching a real-time, system-sourced dashboard to provide campuses access to key financial information on academic programs and financial aid, and assist them in their planning.

Using this framework, the University continues to work towards strategic goals to ensure financial sustainability, mitigate risk, deliver efficient operations, and to ensure access and affordability to students while improving our capacity to deliver quality service to our customers.

### Shared Services Initiatives

In January 2020, the University assembled the Unified Procurement Services Team (UPST). Comprised of a team of procurement professionals from across the UMass system, they were tasked with providing high-quality services while driving transaction efficiency. The UPST supports the campuses in cost optimization through proactive commodity sourcing and contracting with innovative suppliers and partners that support the UPST in delivering on its "better, faster, and cheaper" mission. The team manages approximately \$1 billion in third-party spend annually and approximately 30,000 suppliers and partners. The UPST manages this through leveraging optimized technology, data-driven business intelligence, training, and enhanced operational processes.



Since its inception through June 2023, the UPST has achieved \$112.0 million in annualized cost benefits. This was achieved through more than 280 initiatives across all campuses and the UMass President's Office. The resulting system benefits reached almost seven times the target savings of \$16.5 million and five times the return on investment to date of \$23.4 million.

To continue 'better, faster, cheaper' services, a robust pipeline of process improvement, cost benefit and recovery projects has been developed. The UPST has identified dozens of additional projects to optimize services over the coming 18–24 months which are expected to result in continued savings, efficiencies, and process improvements for the University. Included in these projects, UMass is conducting system-wide proactive sourcing practices and contracts adoption, and deployment of updated vendor performance guidelines that continue to help UMass manage risk while optimizing cost benefits to the system. Programs to increase supplier diversity and environmental sustainability considerations across the vendor portfolio are rolling out to match the values of the University System.

Based on the success of the UPST, the University's Employee Services Team (EST) was established in October 2021 to provide payroll and human resource application management services to all campuses. In FY2023 the services were expanded to include employee travel and expense. As a result, a system-wide

effort to automate and integrate travel and expense technology began in FY2023 with the implementation of Concur. Concur is a market leading Travel & Expense (T&E) platform which will allow the University to build more visibility and governance across travel related expenditures and ensure UMass constituents can reduce the administrative burdens they have when conducting travel for University needs. This transformation of the travel and expense program aligns with updated policies and standards and, along with the implementation of modern technology for all employees, will drive even greater operational efficiencies.

## Using the Annual Financial Report

The University's financial statements are prepared in accordance with U.S. generally accepted accounting principles as prescribed by the Governmental Accounting Standards Board (GASB), which establishes financial reporting standards for public colleges and universities. The University's significant accounting policies are summarized in Note 1 of the accompanying financial statements, including further information on the financial reporting entity.

This report includes the University's Statements of Net Position, Statements of Revenues, Expenses and Changes in Net Position, and the Statements of Cash Flows for the fiscal years ended June 30, 2023 and 2022, as well as certain required



supplementary information. The University's net position (the difference between assets, deferred outflows, deferred inflows, and liabilities) is one indicator of the University's financial health. Over time, increases or decreases in net position are indicators of the improvement in, or erosion of, an institution's financial health when considered together with non-financial factors such as enrollment levels and the condition of facilities.

**Statements of Net Position** include all assets and liabilities, as well as deferred inflows and outflows of resources of the University. Net position is further broken down into three categories: net investment in capital assets, restricted and unrestricted. Amounts reported in net investment in capital assets represent the historical cost of property and equipment, reduced by the balance of related debt outstanding and depreciation expense charged over the years. Net position is reported as restricted when constraints are imposed by third parties, such as donors or enabling legislation. Restricted net position is either non-expendable, as in the case of endowment gifts to be held in perpetuity, or expendable, as in the case of funds to be spent on scholarships and research. All other assets are unrestricted; however, they may be committed for use under contract or designation by the Board of Trustees (the Board). Note 16 to the accompanying financial statements depicts the designations of unrestricted net position at June 30, 2023 and 2022, respectively.

**Statements of Revenues, Expenses and Changes in Net Position** present the revenues earned and expenses incurred during the year. Activities are reported as either operating or non-operating, as prescribed by GASB. According to the GASB definitions, operating revenues and expenses include tuition and fees, grant and contract activity, auxiliary enterprises and activity for the general operations of the institution not including appropriations from state and federal sources. Non-operating revenues include appropriations, capital grants and contracts, gifts, investment income, and non-operating federal grants (such as Pell grants and COVID-19 related Higher Education Emergency Relief Fund grants). With a public university's dependency on support from the state, Pell grants, and gifts, it is common for institutions to have operating expenses exceed operating revenues. This is because the financial reporting model prescribed by GASB classifies state and federal appropriations, Pell grants, and gifts as non-operating revenues. Due to the materiality of the state appropriations upon which the University relies, these appropriation amounts are included in certain analyses throughout this MD&A as operating revenue. The utilization of capital assets is reflected in the financial statements as depreciation expense, which amortizes the cost of a capital asset over its expected useful life. Depreciation expense is considered an operating expense.





**Statements of Cash Flows** present cash receipts and payments of the University that have been included within current and noncurrent cash and cash equivalents, cash held by state treasurer and deposits with bond trustees.

**Notes to the Financial Statements** present additional information to support the financial statements. Their purpose is to clarify and expand on the information in the financial statements.

**Required Supplementary Information (RSI)** presents additional information that differs from the basic financial statements in that the auditor applies certain limited procedures in reviewing the information. In this report, RSI includes schedules of the University's proportionate share of the Massachusetts State Employees' Retirement System (MSERS) pension liability and other postemployment benefits (OPEB) liability, contributions to the MSERS pension and OPEB plans and related ratios, and this MD&A.

## Reporting Entity

The financial statements of the University include financial activities of the following blended component units: the UMass Building Authority (Building Authority), Worcester City Campus Corporation and Subsidiaries (WCCC), UMass Global (UMG), UMass Medical School Foundation, UMass Amherst Foundation, and UMass Lowell Applied Research Corporation (UMLARC).

Separate Statements of Financial Position and Statements of Activities are presented in this report for the University's discretely presented component units, the University of Massachusetts Foundation, Inc. (UMF), and the University of Massachusetts Dartmouth Foundation, Inc. (UMDF). The statements for these entities are presented in accordance with Financial Accounting Standards Board (FASB) standards, which differ from GASB standards in certain areas such as reporting of pledges to endowment and net position.

For copies of publicly available financial statements for the above entities, please contact the University Controller's Office by email at [controller-services@umassp.edu](mailto:controller-services@umassp.edu).

### University of Massachusetts Foundation, Inc.

UMF was established in 1950 to foster and promote the growth, progress and general welfare of the University, and to solicit, receive and administer gifts and donations for such purposes. UMF maintains a portion of the University's investment portfolio, predominantly the endowment, quasi-endowment investments, and certain other investments. The total investments held at UMF on behalf of the University at June 30, 2023, 2022 and 2021 were \$1.0 billion, \$914.8 million and \$1.1 billion, respectively.

In addition to investments held on behalf of the University, UMF maintained an endowment balance of \$933.9 million, \$762.9 million and \$779.0 million at June 30, 2023, 2022 and 2021 respectively.

### University of Massachusetts Dartmouth Foundation, Inc.

UMDF was established in 1973 to raise funds for the development and improvement of the academic and educational environment for students at the Dartmouth campus and the continued engagement of its alumni. In addition to holding investments for the University, UMF also holds a significant portion of the UMDF investments. The total investments of UMDF at June 30, 2023, 2022 and 2021 were \$66.7 million, \$61.6 million and \$76.1 million, respectively. Of those balances, \$66.3 million, \$61.2 million and \$74.4 million is invested with UMF at June 30, 2023, 2022 and 2021, respectively.

## Financial Highlights

In March 2020, the World Health Organization declared a pandemic as a result of the novel coronavirus (COVID-19). As cases began to increase in the country and in Massachusetts, the University suspended in-person education and other campus-based activities and provided refunds to students for a portion of their residence and dining fees during FY2020. The University took significant budget actions across all campuses to address the resulting loss of revenue. These actions included salary freezes, furloughs, and targeted operating and personnel reductions as well as multiple non-personnel strategies including halting or delaying capital projects. Due to the ongoing pandemic, campus operations in FY2021 continued predominantly online and classes were held remotely. Some campus operations resumed in a limited fashion during the second half of FY2021, in accordance with CDC and Massachusetts guidelines. Beginning with the Fall semester of FY2022, all campuses resumed full campus operations.

The University was awarded \$255.6 million under the Coronavirus Aid, Relief, and Economic Security (CARES) Act, the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) and the American Rescue Plan of 2021 (ARPA), collectively provided under the Higher Education Emergency Relief Fund (HEERF). An additional \$3.0 million was awarded under the Governor's Emergency Education Relief Funds. The total funding is split into awards specifically for students and others specifically for use by the University to cover costs related to significant changes to the delivery of instruction due to the coronavirus, partial recovery of lost revenue, and can also be used to provide additional aid to students. The University provided emergency financial aid grants to students of \$2.4 million and \$72.3 million and \$27.1 million in FY2023, FY2022 and FY2021, respectively. An additional \$2.8 million, \$70.4 million and \$54.9 million was used to recover a portion of lost revenue and provide additional financial aid to students in FY2023, FY2022 and FY2021, respectively. There are no unexpended HEERF funds as of June 30, 2023.

In Fall 2021, the University acquired Brandman University in exchange for \$139.3 million. As part of the transaction, the University launched UMass Global (UMG), a private, nonprofit

institution, providing online degree and certificate programs in a wide range of disciplines, serving adult learners. UMG maintains a robust and scalable service and technology platform, allowing for the delivery of a wide variety of primarily online certificate and degree programs, including employer-funded degree programs and competency-based education (CBE). UMG offers over 80 degrees and certificates to benefit working professionals which are offered through fully online coursework.

Selected financial highlights for the fiscal year ended June 30, 2023 include:

- Postemployment benefit expenses related to GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (GASB 75) and GASB Statement No. 68, *Accounting and Reporting for Pensions* (GASB 68) have a significant impact on the operating margin results. Both plans, the Other Post-Employment Benefit Plan (OPEB) under GASB 75 and the Massachusetts State Employees' Retirement System (MSERS) under GASB 68, are administered by the Commonwealth. Annually, the University receives audited reports from the Commonwealth which provide the necessary information to report the University's allocations for OPEB and MSERS reporting purposes. Gains and losses from these GASB standards are heavily impacted by economic conditions and

actuarial assumptions outside of the University's control. The University's operating expenses includes a gain of \$5.3 million as a result of GASB 75 and GASB 68.

- From FY2022 to FY2023, the University's operating revenues increased by \$150.7 million, largely due to increased out of state and international enrollment as part of the University's strategic initiatives to diversify the student body. Operating expenses increased by \$206.4 million primarily driven by increased wages and benefits along with increased expenses associated with increased grant activity during the fiscal year. Non-operating revenues increased \$86.3 million primarily attributed an increase in state appropriations, which offset the decline in nonoperating federal grants related to HEERF. As a result, the University's net position increased \$296.0 million from \$2.7 billion in FY2022 to \$3.0 billion in FY2023.
- For internal reporting purposes, both to senior management and its Board, the University utilizes a key performance indicator identified as 'operating margin.' Operating margin consists of gain before other revenues, expenses, gains and losses (\$218.0M) reduced by unrealized investment gains (\$3.6M). The operating margin is further adjusted for the GAAP effect of postemployment benefit plans (\$5.3M) as well as a non-GAAP element of postemployment benefit



plans which represents payments made subsequent to the measurement date of June 30, 2022 (\$56.8M). The resulting operating margins for the years ended June 30, 2023, 2022 and 2021 were \$152.3M, \$128.5M and \$68.3M, respectively.

## Net Position

Condensed schedules of net position for the University at June 30, 2023, 2022, and 2021, respectively, are presented in **Figure 2**.

Assets totaled \$8.9 billion at both June 30, 2023 and 2022 and \$8.3 billion at June 30, 2021. These balances are primarily driven by capital assets net of accumulated depreciation, which have seen moderate growth in the three years presented, primarily as a result of additional resources being dedicated to address deferred maintenance.

Liabilities totaled \$5.5 billion at both June 30, 2023 and 2022 and \$5.7 billion at June 30, 2021. The majority of the University's long-term liabilities in all three years are long-term debt along with pension and OPEB liabilities.

Net position represents the difference between total assets and total liabilities, and in addition to capital, includes cash, liquid investments, as well as non-cash items and illiquid investments. Total net position was \$3.0 billion, \$2.7 billion and \$2.6 billion at June 30, 2023, 2022 and 2021, respectively. The largest component of net assets for the University remains the net investment in capital assets which remains consistent, around \$2.3 billion for the three years presented.

Unrestricted net position increased over the three years presented due to operating cost reductions, unfilled staffing and faculty positions, a return to pre-pandemic auxiliary operations, and increased non-operating revenues from pandemic related federal funding received under HEERF.

As of June 30, 2023, the University's endowment, held at UMF, experienced an increase of \$99.5 million from \$914.8 million in FY2022 to \$1.0 billion in FY2023. The increase is primarily the result of a period of market returns after a year of economic downturn in FY2022.

**FIGURE 2 – Condensed Schedule of Net Position**

As of June 30, 2023, 2022, and 2021 (\$ in thousands)

Net position	2023	2022	2021
<b>Assets</b>			
Current assets	\$ 1,229,605	\$ 1,345,089	\$ 1,172,142
Noncurrent assets – Capital assets, net	5,615,301	5,549,054	5,435,274
Noncurrent assets – All other noncurrent assets	2,078,434	1,975,000	1,712,544
Total assets	8,923,340	8,869,143	8,319,960
<b>Deferred outflows of resources</b>	<b>603,926</b>	<b>433,998</b>	<b>551,553</b>
<b>Liabilities</b>			
Current liabilities	807,228	790,455	740,806
Noncurrent liabilities	4,736,825	4,679,078	4,946,592
Total liabilities	5,544,053	5,469,533	5,687,398
<b>Deferred inflows of resources</b>	<b>939,241</b>	<b>1,085,656</b>	<b>596,953</b>
<b>Net position</b>			
Net investment in capital assets	2,341,776	2,281,471	2,307,233
Restricted – Nonexpendable	17,648	22,515	22,378
Restricted – Expendable	265,329	262,669	232,833
Unrestricted	419,219	181,297	24,718
<b>Total net position</b>	<b>\$ 3,043,972</b>	<b>\$ 2,747,952</b>	<b>\$ 2,587,162</b>

## Revenues, Expenses, and Changes in Net Position

Condensed schedules of revenues, expenses, and changes in net position of the University for the three years ended June 30, 2023, 2022, and 2021, are presented in **Figure 3**.

**FIGURE 3 – Condensed Schedules of Revenues, Expenses, and Changes in Net Position**

For the years ended June 30, 2023, 2022, and 2021 (\$ in thousands)

Revenue and expense	2023	2022	2021
<b>Operating revenues</b>			
Tuition and fees, net of scholarships	\$ 1,042,664	\$ 1,007,124	\$ 930,613
Grants and contracts	746,350	719,479	667,149
Auxiliary enterprises	475,591	434,129	163,821
Other operating revenues	607,372	560,561	541,720
Total operating revenues	2,871,977	2,721,293	2,303,303
<b>Operating expenses</b>	<b>3,808,229</b>	<b>3,601,764</b>	<b>3,380,022</b>
<b>Operating loss</b>	<b>(936,252)</b>	<b>(880,471)</b>	<b>(1,076,719)</b>
<b>Nonoperating revenues (expenses)</b>			
Federal appropriations	6,255	5,588	5,953
State appropriations	1,011,360	880,003	845,481
Interest expense	(129,132)	(117,244)	(109,144)
Nonoperating federal grants	100,533	221,628	173,592
Other nonoperating income	165,266	78,061	114,412
Total nonoperating revenues (expenses)	1,154,282	1,068,036	1,030,294
<b>Gain (loss) before other revenues, expenses, gains and losses</b>	<b>218,030</b>	<b>187,565</b>	<b>(46,425)</b>
<b>Other revenues, expenses, gains and losses</b>			
Capital appropriations, grants and other sources	41,216	95,908	71,120
Endowment return, net of amount used for operations	72,718	(148,089)	148,514
Other additions (deductions)	(35,944)	25,406	(16,869)
Total other revenues, expenses, gains, and losses	77,990	(26,775)	202,765
<b>Total increase in net position</b>	<b>296,020</b>	<b>160,790</b>	<b>156,340</b>
<b>Net position</b>			
Effect on beginning net position due to GASB-87 restatement	-	-	(1,945)
Net position at the beginning of the year, as restated	2,747,952	2,587,162	2,432,767
<b>Net position at the end of the year</b>	<b>\$ 3,043,972</b>	<b>\$ 2,747,952</b>	<b>\$ 2,587,162</b>



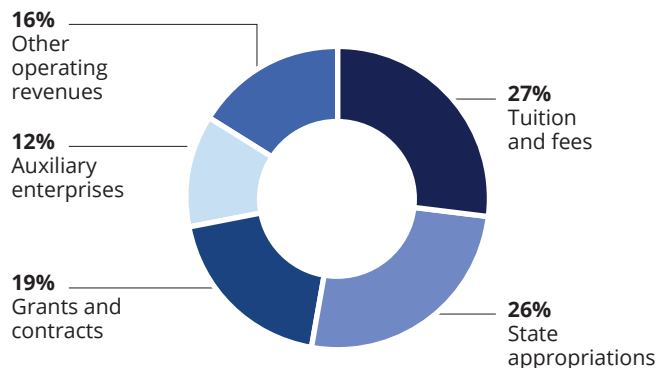
## Operating Revenues and Expenses

While not classified on the financial statements as operating revenue, state appropriations serve as a primary source for funding the core mission of the University. State appropriations revenue, described in detail below, is used almost exclusively to fund payroll for University employees, and as such is considered to be operating revenue for management's planning and analysis purposes. The University's operating revenue, including state appropriations, increased by \$282.0 million to \$3.9 billion in FY2023, driven by increased state appropriations and student supporting operations. From FY2022 and FY2021, operating revenues increased \$452.5 million primarily due to auxiliary revenues returning to normal operations, increases in grants and contracts, and the addition of UMG's tuition and fee revenues.

As noted in **Figure 4**, over 50% of the University's FY2023 operating revenues were from tuition and fees and state appropriations. Auxiliary enterprises revenue includes housing and dining revenue. These three revenue categories make up the primary revenue sources and combined, make up 65% of the University's operating revenue

Other operating revenues includes revenues generated from ForHealth programs. These programs provide public consulting and services in health care financing, administration and policy to federal, state and local agencies and not-for-profit health and policy organizations. In addition to ForHealth activities, other operating revenues also include revenue earned by UMass Chan for educational services it provides to its clinical affiliate UMass Memorial Health Care, Inc. (UMass Memorial) as required by the enabling legislation enacted by the Commonwealth in 1997. Grants and contracts revenue includes federal, state and privately sponsored research and other programs.

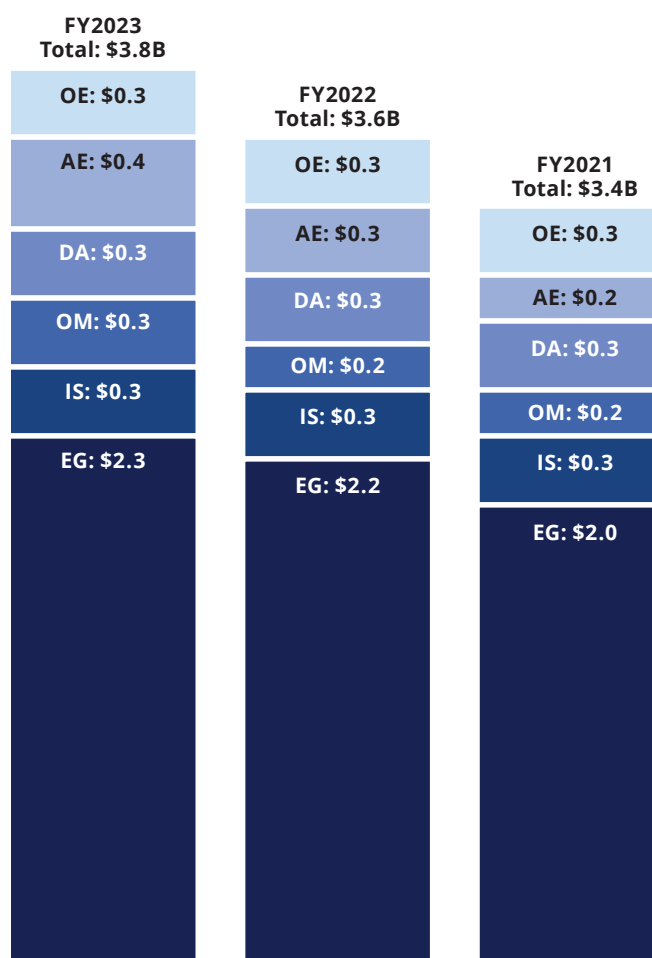
**FIGURE 4 – Fiscal Year 2023 Operating Revenues (including State Appropriations)**



In FY2023, operating expenses, including depreciation and amortization, totaled \$3.8 billion, as compared to \$3.6 billion in FY2022 and \$3.4 billion in FY2021. Of the FY2023 total, \$2.3 billion or 60.5% was used to support the academic core activities of the University, including \$586.3 million in research. The education and general portion of the three-year operating expenses shown in **Figure 5**, represents expenses in the following functional categories: instruction, research, public service, academic support, student services and scholarships and fellowships.

**FIGURE 5 – Three Year Operating Expenses by Function**

(\$ in billions)



**Key**

- OE = Other expenditures
- AE = Auxiliary enterprises
- DA = Depreciation and amortization
- OM = Operation and maintenance of plant
- IS = Institutional support
- EG = Education and general



## State Appropriations

In FY2023, state appropriations represented approximately 24% of all revenues. The level of state support is a key factor influencing the University's overall financial condition. Although the majority of state appropriations are unrestricted revenue, nearly 100% of the state appropriations support payroll and benefits for University employees. In addition to the direct state appropriation, there are several smaller appropriations that add to the total state support for the University. While these smaller line items are in support of campus-specific programs and do not support general University operations, they are included in the state appropriations line in the accompanying financial statements, and in the state appropriations line in **Figure 6**.

The Commonwealth pays fringe benefits for University employees paid from state appropriations. Therefore, such fringe benefit support is added to the state appropriations financial statement line item in the accompanying Statements of Revenues, Expenses and Changes in Net Position. The University pays the Commonwealth for the fringe benefit cost of the employees paid from funding sources other than state appropriations. These amounts are not included in state appropriations.

The University's state appropriations, including fringe benefits, increased in FY2023 by \$131.4 million from FY2022, primarily due to an increase in available state funding and associated fringe determined by the Commonwealth. The University's state appropriations including fringe benefits increased in FY2022 by \$34.5 million from FY2021 primarily due to an increase in available state funding and increases in collective bargaining determined by the Commonwealth.

**Figure 6** details the state appropriations for the fiscal years ended June 30, 2023, 2022, and 2021.

**FIGURE 6 – State Appropriations**

For the years ended June 30, 2023, 2022, and 2021 (\$ in thousands)

Appropriation	2023	2022	2021
State appropriations	\$ 704,241	\$ 618,245	\$ 569,081
Plus: fringe benefits	307,119	261,758	276,400
<b>Commonwealth support</b>	<b>\$ 1,011,360</b>	<b>\$ 880,003</b>	<b>\$ 845,481</b>

## State Capital Appropriations

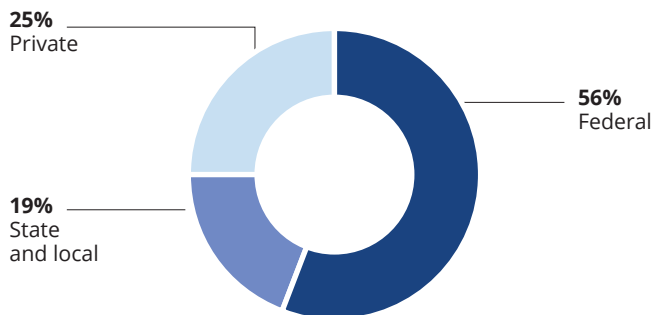
The University faces a financial challenge to maintain and upgrade its capital assets including its infrastructure, buildings and grounds. To have a successful capital program, the University must rely on a combination of revenue sources to fund its capital investments. In FY2023, FY2022 and FY2021, the capital support provided to the University through appropriations and grants from the Commonwealth was \$29.7 million, \$87.1 million and \$62.6 million, respectively. Capital appropriations provides funding in four distinct categories; major projects, critical repairs, critical infrastructure and readiness determination projects.

## Grant and Contract Revenue

Among Massachusetts colleges and universities, the University ranks third in research and development expenditures, behind only the Massachusetts Institute of Technology (MIT) and Harvard University. Most research at the University is externally funded, with the federal government providing a majority of the funding through the National Institutes of Health, the National Science Foundation, and other agencies.

Collectively, UMass Amherst and UMass Chan account for approximately three-quarters of the University's total grants and contracts revenue of \$746.4 million, \$719.5 million and \$667.1 million at June 30, 2023, 2022 and 2021. **Figure 7** details the University's grant and contract revenues by source for the year ended June 30, 2023.

**FIGURE 7 – Grant and Contract Revenue FY2023**



## Tuition and Fees

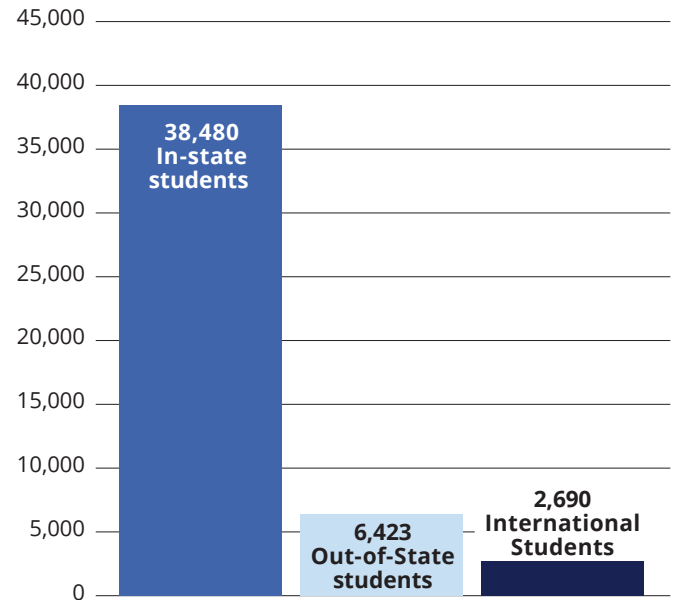
Effective for academic years 2023–2024 and 2022–2023, in-state undergraduate tuition was raised an average of 2.5%. Due to affordability considerations and impacts of the COVID-19 pandemic, in-state undergraduate tuition was frozen for the academic year 2021–2022. Affordability continues to be a priority of the University and increases in fees are considered in conjunction with Commonwealth support on an annual basis.

## Enrollment

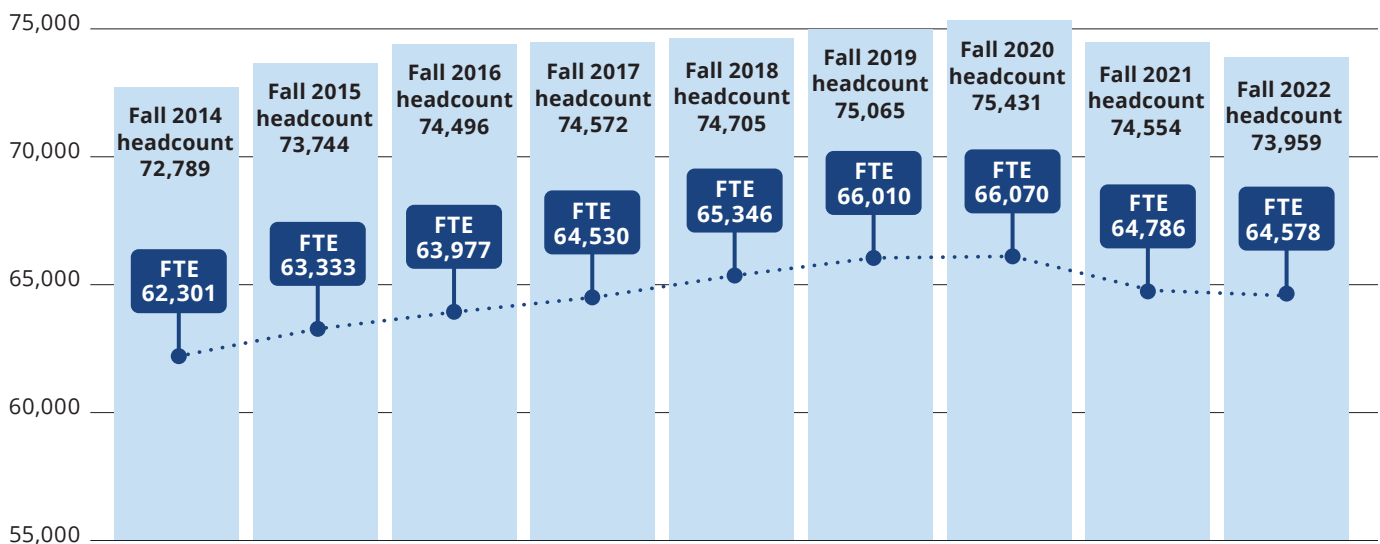
As shown in **Figure 8**, total enrollment in the fall of 2022 was 64,578 FTE (73,959 headcount students), a decrease of 0.3% from the fall of 2021 enrollment of 64,786 FTE (74,554 headcount students). Enrollment in the fall of 2020 was 66,070 FTE (75,065 headcount students). Although the University experienced a minor decline in the five-year enrollment of .01% from the fall of 2018 to the fall of 2022, other institutions of higher education have experienced more significant declines in enrollments over this period. This is consistent with the University's efforts to increase its reach across the Commonwealth and to recruit out-of-state and international students, and reflects the quality of education provided by the University of Massachusetts. Improving student retention remains a key focus of the University's strategic goals to help offset the declining enrollment.

Admission to the University is open to residents of the Commonwealth and non-residents on a competitive basis. Massachusetts residents accounted for 80.9% of the University's total undergraduate enrollment in the fall semester 2022, 82.7% in fall semester 2021 and 83.4% in fall 2020, as shown in **Figure 9**.

**FIGURE 9 – Fall 2022 Undergraduate Enrollment by Residency**



**FIGURE 8 – Total Enrollment**



## Investments Held by UMF

As of June 30, 2023, the University's investments held at UMF increased by \$99.5 million from \$914.8 million to \$1.0 billion. The change in investment value is due to investment gains of \$104.8 million (14.0% annualized return), contributions of \$0.5 million and new university investments of \$19.4 million offset by distributions under the approved spending rule of \$25.3 million. This increase follows a year of economic decline in FY2022, where a return of -13.5% was experienced. During FY2021, a historic 37.1% return was experienced when the endowment grew by \$156.1 million to \$1.1 billion. Over the last decade, the endowment generated a 10-year annualized return of 7.0%, exceeding UMF's long-term return objective and reflecting the strategic growth of the portfolio's exposure to global equities and strong partnerships with high caliber investment managers. This ten-year return was produced with annual investment results that ranged from a low of -13.5% in FY2022 to a high of 37.1% in FY2021, underscoring the importance of having a long-term focus.

## Long-Term Debt

Long-term debt, including commercial paper, is the University's largest liability at June 30, 2023, 2022 and 2021. The University had outstanding long-term debt of \$3.5 billion at June 30, 2023, \$3.7 billion at June 30, 2022 and \$3.3 billion at June 30, 2021. The principal issuer of the University's debt is the Building Authority. Additional issuers utilized by the University include

Massachusetts Health and Educational Facilities Authority (MHEFA), Massachusetts Development Financing Authority (MDFA), UMG and WCCC.

During FY2023, the University issued \$17.3 million in new commercial paper to finance the Substructure Demolition & Quadrangle Development at the Boston campus, and two property acquisitions at the Lowell campus with interest rates from 2.00% to 4.55%.

The debt financed through the Building Authority is being used for construction and renovation of residence halls and general education buildings, replacement of core infrastructure, and construction of academic, laboratory, and research facilities. The proceeds from the UMass MHEFA bonds were used to create an internal revolving loan program and to fund the construction of two new campus centers at the Boston and Lowell campuses (funded jointly with the Commonwealth).

For further details on outstanding balances with each issuer, refer to Note 10 of the accompanying financial statements.

## University Bond Rating

The University relies on a carefully planned and executed debt strategy to support master and strategic planning at the campuses and for the University as a whole. Bonds issued by the University and the Building Authority are rated Aa2 stable by Moody's Investor Service, AA stable by Fitch Ratings, and AA- stable by Standard and Poor's Global Rating.



Standard and Poor reaffirmed the University's rating during FY2023. During FY2022, Moody's and Fitch re-affirmed the University's ratings, citing the University's flagship role in public higher education in Massachusetts, strong fiscal oversight, steady enrollment, positive operating performance, growth in financial resources and solid support from the Commonwealth.

## Line of Credit

During FY2021, the University entered into a line of credit agreement with Bank of America and State Street Bank with a maximum loan amount of \$75.0 million each, for a total maximum loan amount of \$150.0 million. The line of credit had a maturity date of May 10, 2022.

During FY2022, the University amended and restated the line of credit agreement with Bank of America as the sole lender for a maximum loan amount of increasing the available line of credit to \$150.0 million (the "new line of credit") and allowed the State Street Bank line of credit to expire. The new line of credit had a maturity date of May 1, 2023.

During FY2023, the University amended the existing line of credit agreement with Bank of America maintaining a maximum loan amount of \$150.0 million. The line of credit has a maturity date of May 1, 2024.

As of June 30, 2023, the outstanding balance on the line of credit was \$0.

On July 26, 2023, the University entered a \$9.3 million letter of credit on behalf of UMass Global for the benefit of the Department of Education. This letter of credit is within the University's existing line of credit.

## Limitations on Additional Indebtedness

The University may, without limit, issue additional indebtedness or request the Building Authority to issue additional indebtedness on behalf of the University so long as such indebtedness is payable from all available funds of the University. As noted in the Board of Trustee policy, each campus' debt service cannot exceed 8% of its total operating expenditures.

The Building Authority is authorized by its enabling act to issue bonds with the unconditional guarantee of the Commonwealth for the punctual payment of the interest and principal on the guaranteed bonds. The full faith and credit of the Commonwealth are pledged for the performance of its guarantee. The enabling act, as amended, currently limits to \$200.0 million the total principal amount of notes and bonds of the Building Authority that may be Commonwealth guaranteed and outstanding at any one time. During FY2021, the University retired its remaining Commonwealth guaranteed debt. As of June 30, 2023, the University does not have any outstanding Commonwealth guaranteed debt.

## Capital Plan

A majority of the capital spending during FY2023 and FY2022 related to continued investments in deferred maintenance. In September 2021, the University's Board approved an updated five-year capital plan for FY2022–FY2026 totaling \$1.9 billion. The University's capital plan is funded through a combination of University operations, bonds issued by the Building Authority and MHEFA, Commonwealth appropriations, and private fundraising.

The University's five-year capital plan for FY2022–FY2026 includes major projects that were previously approved by the Board in prior-year capital plans. The University's capital approval process provides for a multi-step review process involving the President's Office, the Building Authority and the Board. Additional approvals have been put in place for any capital project seeking alternative funding and/or delivery options.

In the fall of FY2024 an updated FY2024–FY2028 Capital was presented for Board review and approval.

## Factors Impacting Future Periods

There are a number of issues of University-wide importance that directly impact the financial operations of the University. The University continually monitors issues such as improving academic quality, ensuring enrollment stability, realizing strong financial results, investing in capital assets, expanding fundraising capacity, operating more efficiently, being the most effective University for students and the Commonwealth given the available resources, and measuring performance. Consideration of these items are of continuous importance to the Board and University leadership and impact the financial planning each year. Student enrollment, the level of state support, the impact of collectively bargained wage increases, rising fringe benefit costs, and the ability of student-fee supported activities to meet inflationary pressures determine the limits of program expansion, new initiatives and strategic investments, as well as the ability of the University to meet its core mission and ongoing operational needs.

## Contacting the University

This financial report is designed to provide the University, the Commonwealth, the public and other interested parties with an overview of the financial results of the University and an explanation of the University's financial condition. If you have any questions about this report or require additional information, please contact the University Controller's Office by email at [controller-services@umassp.edu](mailto:controller-services@umassp.edu).

# Financial Statements

## Statements of Net Position

As of June 30, 2023 and 2022 (\$ in thousands). See accompanying notes to the financial statements.

Assets and liabilities	2023	2022
<b>Assets</b>		
<b>Current assets</b>		
Cash and cash equivalents	\$ 148,803	\$ 121,053
Cash held by state treasurer	31,211	25,054
Deposits with bond trustees	9,581	11,326
Accounts receivable, net	324,547	336,589
Lease receivable	15,145	16,464
Short-term investments	646,473	787,356
Other current assets	53,845	47,247
Total current assets	1,229,605	1,345,089
<b>Noncurrent assets</b>		
Cash held by state treasurer	10,915	30,177
Deposits with bond trustees	348,706	508,440
Accounts receivable, net	39,573	48,968
Lease receivable	301,213	317,654
Long-term investments	1,364,207	1,052,299
Other assets	13,820	17,462
Capital assets, net	5,615,301	5,549,054
Total noncurrent assets	7,693,735	7,524,054
<b>Total assets</b>	<b>8,923,340</b>	<b>8,869,143</b>
<b>Deferred outflows of resources</b>	<b>603,926</b>	<b>433,998</b>
<b>Liabilities</b>		
<b>Current liabilities</b>		
Accounts payable and accrued expenses	420,379	418,601
Unearned revenues and advances	138,381	126,065
Lease and subscription liability, current portion	19,631	22,061
Long-term debt, current portion	127,753	121,662
Commercial paper notes	37,250	20,000
Other current liabilities	63,834	82,066
Total current liabilities	807,228	790,455
<b>Noncurrent liabilities</b>		
Unearned revenues and advances	90,782	73,960
Lease and subscription liability	174,993	198,352
Long-term debt	3,360,817	3,545,711
Net pension liability	444,824	276,313
Net other postemployment benefits liability	559,807	485,141
Other long-term liabilities	105,602	99,601
Total noncurrent liabilities	4,736,825	4,679,078
<b>Total liabilities</b>	<b>5,544,053</b>	<b>5,469,533</b>
<b>Deferred inflows of resources</b>	<b>939,241</b>	<b>1,085,656</b>
<b>Net position</b>		
Net investment in capital assets	2,341,776	2,281,471
Restricted – Nonexpendable	17,648	22,515
Restricted – Expendable	265,329	262,669
Unrestricted	419,219	181,297
<b>Total net position</b>	<b>\$ 3,043,972</b>	<b>\$ 2,747,952</b>



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

For the years ended June 30, 2023 and 2022 (\$ in thousands). See accompanying notes to the financial statements.

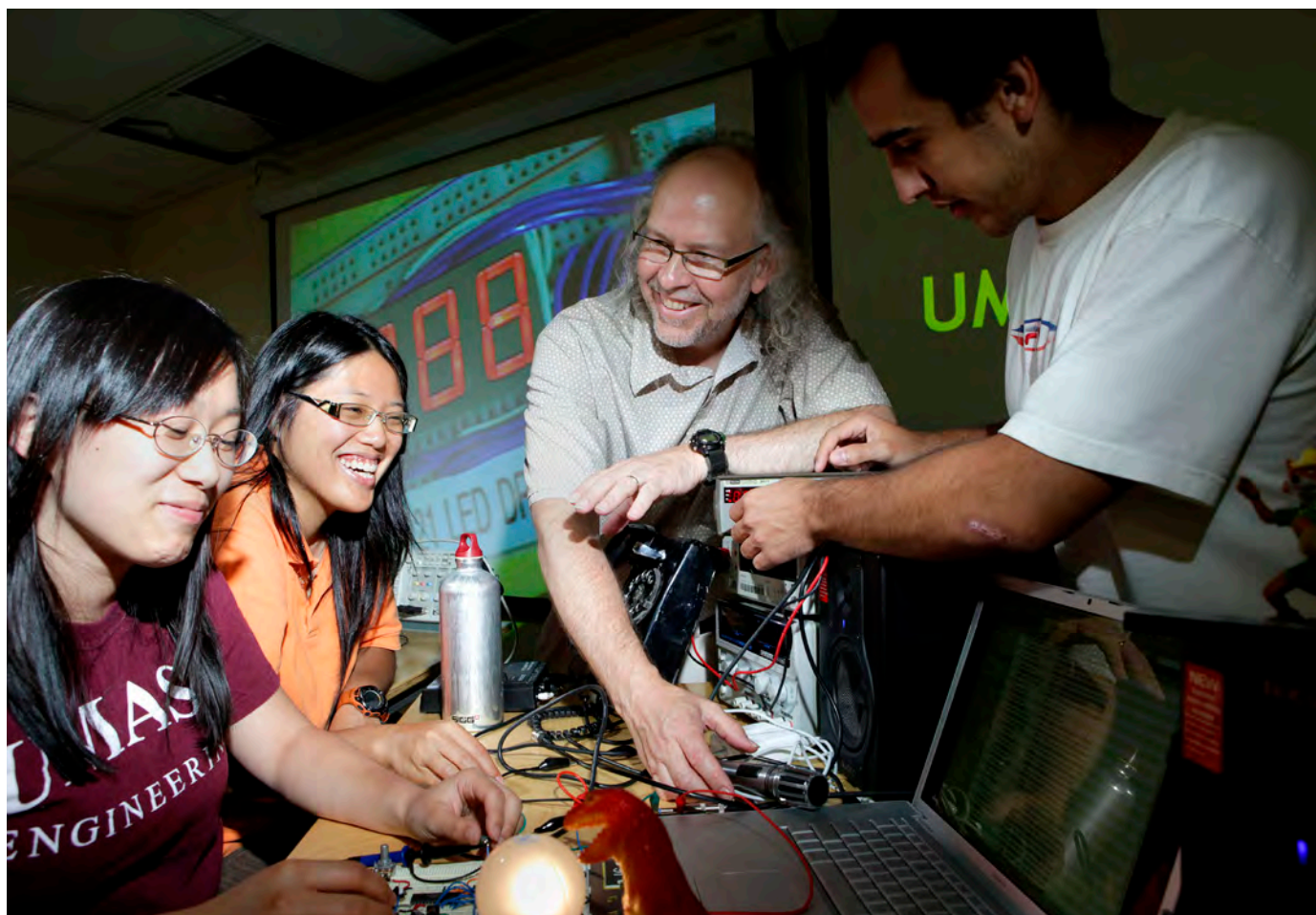
Revenues and expenses	2023	2022
<b>Operating Revenues</b>		
Tuition and fees (net of scholarship allowances of \$409,759 at June 30, 2023 and \$369,902 at June 30, 2022)	\$ 1,042,664	\$ 1,007,124
Grants and contracts	746,350	719,479
Sales and services, educational activities	41,388	40,907
Auxiliary enterprises	475,591	434,129
Other operating revenues:		
Sales and services, independent operations	66,955	66,929
Sales and services, public service activities	377,375	321,954
Other	121,654	130,771
<b>Total operating revenues</b>	<b>2,871,977</b>	<b>2,721,293</b>
<b>Operating expenses</b>		
Educational and general		
Instruction	996,803	930,362
Research	586,292	551,367
Public service	87,581	71,649
Academic support	222,169	194,153
Student services	240,039	211,088
Institutional support	343,980	315,810
Operation and maintenance of capital assets	259,873	242,749
Depreciation and amortization	344,872	330,715
Scholarships and fellowships	62,237	121,334
Auxiliary enterprises	352,627	320,535
Other expenditures		
Independent operations	56,605	58,582
Public service activities	255,151	253,420
Total operating expenses	3,808,229	3,601,764
<b>Operating loss</b>	<b>(936,252)</b>	<b>(880,471)</b>
<b>Nonoperating revenues (expenses)</b>		
Federal appropriations	6,255	5,588
State appropriations	1,011,360	880,003
Gifts	43,881	67,948
Investment return, net	68,155	(24,164)
Endowment return used for operations	43,774	34,944
Interest expense	(129,132)	(117,244)
Nonoperating federal grants	100,533	221,628
Other nonoperating income (loss)	9,456	(667)
Net nonoperating revenues	1,154,282	1,068,036
<b>Gain (loss) before other revenues, expenses, gains, and losses</b>	<b>218,030</b>	<b>187,565</b>
<b>Other revenues, expenses, gains and losses</b>		
Capital appropriations	29,690	87,062
Capital grants, contracts and gifts	11,526	8,846
Endowment return, net of amount used for operations	72,718	(148,089)
Other additions (deductions)	(35,944)	25,406
Total other revenues, expenses, gains, and losses	77,990	(26,775)
<b>Total increase in net position</b>	<b>296,020</b>	<b>160,790</b>
<b>Net position at beginning of year</b>	<b>2,747,952</b>	<b>2,587,162</b>
<b>Net position at end of year</b>	<b>\$ 3,043,972</b>	<b>\$ 2,747,952</b>

## Statements of Cash Flows

For the years ended June 30, 2023 and 2022 (\$ in thousands). See accompanying notes to the financial statements.

Cash flow	2023	2022
<b>Cash flows from operating activities</b>		
Tuition and fees	\$ 1,137,320	\$1,106,745
Grants and contracts	764,887	724,415
Payments to suppliers	(1,100,129)	(1,055,007)
Payments to employees	(1,885,577)	(1,766,320)
Payments for benefits	(602,773)	(561,537)
Payments for scholarships and fellowships	(96,537)	(122,685)
Loans issued to students and employees	(1,673)	(10,746)
Collections of loans to students and employees	4,377	18,619
Auxiliary enterprises	475,471	434,311
Sales and services, educational	41,599	40,750
Sales and services, independent operations	66,955	66,929
Sales and services, public service activities	395,386	312,617
Student related fiduciary activities inflows	13,633	15,012
Student related fiduciary activities outflows	(10,285)	(11,583)
Other receipts, net	136,998	131,112
<b>Net cash used for operating activities</b>	<b>(660,348)</b>	<b>(677,368)</b>
<b>Cash flows from noncapital financing activities</b>		
Federal appropriations	6,255	5,588
State appropriations	1,011,360	880,003
Grants, contracts and gifts for other than capital purposes	45,338	73,268
Nonoperating federal grants	100,533	221,628
Other noncapital financing activities	(356)	(816)
<b>Net cash provided by noncapital financing activities</b>	<b>1,163,130</b>	<b>1,179,671</b>
<b>Cash flows from capital and other financing activities</b>		
Proceeds from debt issuances	17,250	486,620
Proceeds from premiums received	-	26,327
Bond issuance costs paid	-	(2,423)
Capital appropriations	29,690	87,062
Capital grants and contracts	10,069	3,525
Proceeds from sales of capital assets	1,136	47,586
Purchases of capital assets and construction	(444,906)	(378,227)
Lease receipts	10,793	18,200
Interest on leases	-	5,180
Principal paid on debt and leases	(123,523)	(210,816)
Interest paid on debt and leases	(155,939)	(135,125)
<b>Net cash used for capital financing activities</b>	<b>(655,430)</b>	<b>(52,091)</b>
<b>Cash flows from investing activities</b>		
Proceeds from sales and maturities of investments	2,282,738	1,263,822
Interest on investments	62,974	25,990
Purchases of investments	(2,339,898)	(1,474,851)
Cash received from acquisition of subsidiary	-	76,943
<b>Net cash provided by (used for) investing activities</b>	<b>5,814</b>	<b>(108,096)</b>
<b>Net (decrease) increase in cash and cash equivalents</b>	<b>(146,834)</b>	<b>342,116</b>
<b>Cash and cash equivalents – beginning of the year</b>	<b>696,050</b>	<b>353,934</b>
<b>Cash and cash equivalents – end of the year</b>	<b>549,216</b>	<b>696,050</b>

Cash flow	2023	2022
<b>Reconciliation of operating loss to net cash used for operating activities</b>		
Operating loss	(936,252)	(880,471)
Adjustments to reconcile loss to net cash used for operating activities:		
Depreciation and amortization expense	344,872	330,715
Changes in assets and liabilities:		
Accounts receivable, net	21,423	4,532
Other assets	869	(430)
Accounts payable and accrued expenses	(36,885)	(17,623)
Unearned revenues and advances	29,137	668
Other liabilities	(13,279)	15,352
Postemployment benefits liability, net	(62,196)	(107,520)
Fiduciary transactions	1,005	2,366
Changes in deferred inflows related to future revenues	(9,015)	(24,957)
Changes in deferred outflows related to future revenues	(27)	-
<b>Net cash used for operating activities</b>	<b>(660,348)</b>	<b>(677,368)</b>
<b>Supplemental disclosure of noncash activities</b>		
Assets acquired and included in accounts payable and other liabilities	65,997	41,364
Assets acquired in exchange for lease obligation	12,895	32,775
Gain (loss) on disposal of capital assets	(17,671)	(10,845)
Extinguishment of debt	41,907	-
Donated assets	35	241





## Component Unit Statements of Financial Position

As of June 30, 2023 and 2022 (\$ in thousands). See accompanying notes to the financial statements.

Component units	2023	2022
<b>Assets</b>		
Cash	\$ 1,377	\$ 2,654
Pledges receivable, net	153,424	170,929
Other receivables	54	873
Investments of the Foundations	2,006,597	1,731,288
Prepaid expenses and other assets	4,192	6,644
Land, property, plant and equipment, net	18,709	15,213
<b>Total assets</b>	<b>2,184,353</b>	<b>1,927,601</b>
<b>Liabilities</b>		
Accounts payable and accrued expenses	4,366	3,316
Deferred revenue	1,460	11,845
Right of use liability	13,499	-
Obligations to beneficiaries of split-interest agreements	2,723	2,335
Assets held on behalf of others	1,033,099	935,331
<b>Total liabilities</b>	<b>1,055,147</b>	<b>952,827</b>
<b>Net assets</b>		
Without donor restrictions	60,266	52,776
With donor restrictions	1,068,940	921,998
<b>Total net assets</b>	<b>1,129,206</b>	<b>974,774</b>
<b>Total liabilities and net assets</b>	<b>\$ 2,184,353</b>	<b>\$ 1,927,601</b>



## Component Unit Statements of Activities

For the years ended June 30, 2023 (with summarized financial information for the year ended June 30, 2022) (\$ in thousands).

Component units	Without donor restriction	With donor restriction	Total 2023	Total 2022
<b>Support and revenue</b>				
Gifts, bequests and grants	\$ 880	\$ 59,753	\$ 60,633	\$ 285,594
Other contributions	25,141	13,825	38,966	11,408
Total investment income, including net gains (losses) - net of fees	110,314	103,901	214,215	(289,134)
Investment management fee	12,582	-	12,582	12,528
Other income	28	-	28	-
Net assets released from restrictions	29,564	(29,564)	-	-
<b>Total support and revenue</b>	<b>178,509</b>	<b>147,915</b>	<b>326,424</b>	<b>20,396</b>
<b>Expenses</b>				
Distributions to University	53,015	184	53,199	42,664
Program services	6,967	-	6,967	5,546
Fundraising support	3,982	-	3,982	4,706
Administrative and general, Foundation	5,559	356	5,915	4,172
Administrative and general, University	2,430	-	2,430	1,185
<b>Total expenses</b>	<b>71,953</b>	<b>540</b>	<b>72,493</b>	<b>58,273</b>
<b>Excess of support and revenue over expenses</b>	<b>106,556</b>	<b>147,375</b>	<b>253,931</b>	<b>(37,877)</b>
Less: Fiscal year activity related to assets held on behalf of University	(99,483)	-	(99,483)	164,968
Less: Fiscal year activity related to assets held on behalf of Edward M. Kennedy Institute	1,715	-	1,715	7,879
Transfers to (from) other funds	45	(45)	-	-
Change in value of split interest agreements	(457)	(388)	(845)	-
Other	(886)	-	(886)	(854)
<b>Change in net assets</b>	<b>7,490</b>	<b>146,942</b>	<b>154,432</b>	<b>134,116</b>
<b>Net assets, beginning of year</b>	<b>52,776</b>	<b>921,998</b>	<b>974,774</b>	<b>840,658</b>
<b>Net assets, end of year</b>	<b>\$ 60,266</b>	<b>\$ 1,068,940</b>	<b>\$ 1,129,206</b>	<b>\$ 974,774</b>



# Notes to Financial Statements

## 1. Summary of Significant Accounting Policies

### Reporting Entity

The University of Massachusetts (University or UMass), a federal land grant institution, is governed by Massachusetts General Laws Chapter 75. Its Board of Trustees (Board or Trustees) consists of nineteen voting members and three non-voting members. The voting members consist of two full-time students, the Secretary of Education of the Commonwealth of Massachusetts (Commonwealth) and sixteen members appointed by the governor. The non-voting members consist of student representatives who may only participate in open meetings of the full Board of Trustees.

The University is a business-type activity of the Commonwealth. The financial balances and activities included in these financial statements are, therefore, also included in the Commonwealth's annual comprehensive financial report.

On September 2, 2021 the University completed the transfer of control of Brandman University to UMass. This launched the University of Massachusetts Global (UMG), that delivers expanded online education opportunities to adult learners.

The financial statements of the University include the campuses of Amherst, Boston, Dartmouth, Lowell, Chan Medical School (UMass Chan), and the President's Office of the University, UMG, Worcester City Campus Corporation (WCCC), University of Massachusetts Lowell Applied Research Corporation (UMLARC), the University of Massachusetts Amherst Foundation (UMass Amherst Foundation), University of Massachusetts Medical School Foundation (UMMSF) as well as the University of Massachusetts Building Authority (Building Authority).

The Building Authority is a public instrumentality of the Commonwealth created by Chapter 773 of the Acts of 1960 (referred to as the Enabling Act), whose purpose is to provide dormitories, dining commons, and other buildings and structures for use by the University. The UMLARC is a legally separate 501(c)(3) non-profit corporation which promotes efficient and effective applied research and development by entering into grants, contracts, and other contractual mechanisms for services. UMLARC also provides analytic and technology solutions to government and non-government entities to extend the impact of the University's technology enterprise. UMG is a California based not-for-profit institution of higher learning. WCCC is a tax-exempt organization founded to support research and real property activities for the University. The UMass Amherst Foundation supports private fundraising on behalf of the faculty and students of the Amherst campus. The UMMSF supports fundraising and philanthropic activities of the UMass Chan. These component units are blended in the financial statements of the University because of the significance and exclusivity of their financial relationships with the University. Refer to Note 18 for condensed financial information for these blended component units.

The University also includes the financial information of the University's discretely presented component units, the University of Massachusetts Foundation, Inc. (UMF) and the University of Massachusetts Dartmouth Foundation, Inc. (UMDF). In these financial statements, UMF and UMDF are collectively known as the Foundations. These are related tax-exempt organizations founded to foster and promote the growth, progress and general welfare of the University.

## Basis of Presentation

The accompanying financial statements have been prepared in accordance with U.S. generally accepted accounting principles (GAAP) as prescribed by the Governmental Accounting Standards Board (GASB) using the economic resources measurement focus and the accrual basis of accounting. The Foundations' financial statements are prepared in accordance with accounting and reporting requirements prescribed by the Financial Accounting Standards Board (FASB). As such, certain revenue recognition criteria and presentation features are different from GASB revenue recognition criteria and presentation features. No modifications have been made to the Foundations' financial information in the University's financial reporting entity for these differences.

The University's activities are considered to be a single business-type activity and accordingly, are reported in a single column in the financial statements. Business-type activities are those that are financed in whole or in part by funds received from external parties for goods or services.

On the Statements of Revenues, Expenses and Changes in Net Position, the University's operating activities consist of tuition and fees, grants and contracts, sales and services, auxiliary enterprise and other operating revenues. Other operating revenues include sales and services provided by UMass Chan under its ForHealth Consulting program (ForHealth), formally Commonwealth Medicine. ForHealth provides consulting and services in health care financing, administration and policy to federal, state and local agencies and not-for-profit health and policy organizations. Also included in other operating revenues are payments received by UMass Chan for educational services it provides to its clinical affiliate, UMass Memorial Medical Center (UMass Memorial).

Operating expenses include, among other items, payroll, fringe benefits, utilities, supplies and services, depreciation, and amortization. Nonoperating revenues or expenses are those in which the University receives or gives value without directly giving or receiving equal value, such as State and Federal appropriations, COVID-19 related Higher Education Emergency Relief Fund (HEERF) revenue, Federal Pell grants, private gifts, and investment income.

Revenues for exchange transactions are recognized when earned and expenses are recognized when incurred. Restricted grant revenue is recognized only when all eligibility requirements have been met. The University applies restricted net assets first when an expense or outlay is incurred for purposes for which both restricted and unrestricted net assets are available.

The University receives unconditional promises to give through private donations or pledges from corporations, foundations, alumni and other supporters of the University. Revenue is recognized when a pledge is received and all eligibility requirements, including time and purpose requirements, are met. Endowment pledges are not recorded until paid because the inherent time restriction has not been met until the funds are able to be invested in perpetuity.

## Net Position

Net position is classified into the following categories:

- **Net investment in capital assets:** Capital assets, at historical cost or fair market value on the date of gift, net of accumulated depreciation and outstanding principal balances of debt attributable to the acquisition, construction or improvement of those assets.
- **Restricted nonexpendable:** Resources subject to externally imposed stipulations that they be maintained permanently by the University.
- **Restricted expendable:** Resources whose use by the University is subject to externally imposed stipulations. Such assets include restricted grants and contracts, the accumulated net gains/losses on true endowment funds, as well as restricted funds loaned to students, restricted gifts and endowment income, and other similar restricted funds.
- **Unrestricted:** The net position that is not subject to externally imposed restrictions governing their use. The University's unrestricted net position may be designated for specific purposes by management or the Board of Trustees. Substantially all of the University's unrestricted net position is designated to support academic and research initiatives or programs, auxiliary enterprises, quasi-endowments, or commitments to capital construction projects. Note 16 describes these designations in more detail.

## Cash and Cash Equivalents

Cash and cash equivalents consist primarily of demand deposit accounts, savings accounts and money market accounts with an original maturity date of three months or less.

## Massachusetts Municipal Depository Trust

The University is authorized to invest in the Massachusetts Municipal Depository Trust ("MMDT"), a pooled money market-like fund, established under Massachusetts General Laws, Chapter 29, Section 38A. MMDT is an external investment pool that meets the criteria to report its holdings at amortized cost. As such, the University reports its position in MMDT at amortized cost which approximates the net asset value of \$1.00 (one dollar) per share. MMDT has a maturity of less than one year and is not rated.

## Accounts Receivable, Net

Accounts receivable consist of receivables for tuition and fees, grants and contracts, student loans, pledges and ForHealth related activities. The University establishes an allowance for accounts receivable based on management's expectation regarding the collection of the receivables and the University's historical experience for collections.

## Investments

Investments are reported at fair value. Short-term investments consist of deposits with original maturities of less than one year and are available for current use. Securities received as gifts are recorded at estimated fair value at the date of the gift. Investment return includes dividends, interest income, unrealized gains and losses and is recognized on the accrual basis. Also included are realized gains and losses, cost is determined on a specific identification basis.

## Endowment

UMF maintains and administers the University's endowment assets and other long-term investments. UMF utilizes the pooled investment concept whereby all invested funds are included in one investment pool, unless otherwise required by the donor.

Pooled investment funds will receive an annual distribution, based on the endowment fund's average market value for the preceding twelve quarters on a one-year lag. Only quarters with funds on deposit are included in the average. In addition, a prudence rule is utilized, limiting spending from a particular endowment fund to be no lower than 93% of its carrying value. The spending rate approved for the years ended June 30, 2023 and 2022 was 4%.

## Capital Assets

Capital assets (excluding intangible right-to-use lease and subscription assets) are stated at cost on the date of acquisition or, in the case of gifts, fair value upon date of donation. Construction in progress is stated at cost, which includes direct construction costs and other expenditures related to construction. All construction costs related to projects which are not yet completed are charged to construction in progress until such time as the projects are completed and placed in operation. Repairs and maintenance costs are expensed as incurred, whereas major improvements that extend the estimated useful lives of the assets are capitalized as additions to capital assets. The University does not capitalize works of art, historical treasures or library books.

The University capitalizes assets with useful lives greater than one year and acquisition costs greater than or equal to \$5,000. The University computes depreciation using the straight-line method over the asset's useful life and applies a half year convention in the year the asset is acquired or placed in service. Land is not depreciated.

**Table 1** presents the range of useful lives for the University's depreciable assets:

**TABLE 1 – Depreciable Assets**

Depreciable asset category	Useful life
Land improvements	20 years
Buildings	12–50 years
Infrastructure	50 years
Building improvements	3–20 years
Equipment, furniture and IT infrastructure	3–15 years
Software	5 years

## Newly Implemented Accounting Standards

i) In March 2020, the Governmental Accounting Standards Board (GASB) issued GASB Statement No. 94, *Public-Private and Public-Public Partnerships (PPP) and Availability Payment Arrangements (APA)*. This standard establishes the definitions of Public-Private Partnerships, an arrangement in which a government (the transferor) contracts with an operator (a governmental or nongovernmental entity) to provide public services by conveying control of the right to operate or use a nonfinancial asset for a period of time in an exchange or exchange-like transaction. Some PPPs meet the definition of a service concession arrangement. This standard also provides guidance for accounting and financial reporting for availability payment arrangements (APA). As of and for the years ending June 30, 2023 and 2022, the University had no APAs.

The University adopted the GASB Statement No. 94 effective July 1, 2021. Adoption of the standard had no effect on the University's financial statements.

See Note 9 for discussion of the University's Public-Private Partnership arrangements.

ii) In May 2020, the Governmental Accounting Standards Board (GASB) issued GASB Statement No. 96, *Subscription-Based Information Technology Arrangements*. This standard defines Subscription-Based Information Technology Arrangements (SBITA); establishes that a SBITA results in a right-to-use subscription asset (an intangible asset), and a corresponding subscription liability; and provides the capitalization criteria for outlays other than subscription payments, including implementation costs of a SBITA.

A SBITA is defined as a contract that conveys control of the right to use another party's (a SBITA vendor's) information technology (IT) software, alone or in combination with tangible capital assets (the underlying IT assets), as specified in the contract for a period of time in an exchange or exchange-like transaction.

The University adopted GASB Statement No. 96 effective July 1, 2021, which resulted in adjustment to its previously reported assets and liabilities as shown in **Table 2** (\$ in thousands):

**TABLE 2 – Adjustment to Previously Reported Assets and Liabilities**

(\$ in thousands)

Net position	Assets	Liabilities
Balance as of July 1, 2021, as previously reported	\$ 8,849,275	\$ 5,449,665
Plus: Implementation of GASB Statement No. 96	19,868	19,868
<b>Balance as of July 1, 2021, as restated</b>	<b>\$ 8,869,143</b>	<b>\$ 5,469,533</b>



## Leasing

The University determines if an arrangement is a lease at inception. The University has leases under which it is obligated as a lessee and leases for which it is a lessor. The University is a lessee for various noncancellable real estate. In addition, the University is a lessor of various leases of buildings, office space and ground leases.

**Short-term Leases** — For leases arrangements with a maximum possible term of 12 months or less at commencement, the University recognizes expense based on the provisions of the lease contract.

**Lease Arrangements Other Than Short-Term** — For all other leases (i.e. those that are not short-term), the University recognizes a lease liability, and an intangible right-to-use lease asset.

For leases, where the University is a lessor, the University recognizes a lease receivable and a deferred inflow of resources.

### Measurement of Lease Amounts —

- **Lessee:** At lease commencement, the University initially measures the lease liability at the present value of payments expected to be made during the lease term.

Subsequently, the lease liability is reduced by the principal portion of lease payments made. The lease asset is initially measured as the initial amount of the lease liability, less lease payments made at or before the lease commencement date, plus any initial direct costs ancillary to placing the underlying asset into service, less any lease incentives received at or before the lease commencement date. Subsequently, the lease asset is amortized into depreciation and amortization expense on a straight-line basis over the shorter of the lease term or the useful life of the underlying asset. If the University is reasonably certain of exercising a purchase option contained in a lease, the lease asset will be amortized over the useful life of the underlying asset.

- **Lessor:** At lease commencement, the University initially measures the lease receivable at the present value of payments expected to be received during the lease term.

Subsequently, the lease receivable is reduced by the principal portion of lease payments made. The deferred inflows of resources are initially measured as the initial amount of the lease receivable plus any payments received at or before the commencement of the lease term that relate to future periods. Subsequently, the deferred inflows of resources are amortized into lease revenue on a straight-line basis over the shorter of the lease term or the useful life of the underlying lease receivable.

**Key Estimates and Judgments** — Key estimates and judgments include how the University determines (1) the discount rate it uses to calculate the present value of the expected lease payments, (2) lease term, and (3) lease payments.

When available, the University will use the interest rate explicitly or implicitly stated in the lease contract. If the rate is not provided within the contract, the University will use its incremental borrowing rate (IBR), based on the University's applicable bond rates. The University's IBR for leases is based on the rate of interest it would need to pay if it issued general obligation bonds to borrow an amount equal to the lease payments, under similar terms, as of the lease commencement or amendment dates.

The lease includes the noncancellable period of the lease plus any additional periods covered by either a University or lessor unilateral option to (1) extend for which it is reasonably certain to be exercised, or (2) terminate for which it is reasonably certain not to be exercised. Periods in which both the University and the lessor/vendor have an option to terminate (or if both parties have to agree to extend) are excluded from the lease term.

Payments are evaluated by the University to determine if they should be included in the measurement of the lease liabilities, including those payments that require a determination of whether they are reasonably certain of being made, such as purchase options, payments for termination penalties, and other payments.

**Remeasurement of Lease Amounts** — The University monitors changes in circumstances that may require remeasurement of a lease. When certain changes occur that are expected to significantly affect the amount of the lease liability or lease receivable, the liability or receivable is remeasured, and a corresponding adjustment is made to the lease asset (for lessee arrangements) or deferred inflows of resources (for lessor arrangements).

**Presentation in Statements of Net Position** — Lease assets are reported with capital assets and lease liabilities are reported within current and non-current liabilities in the Statements of Net Position. Lease receivables are reported with current and non-current assets and deferred inflows of resources in the Statements of Net Position.

## Subscription Based Liabilities

The University determines if an arrangement is a subscription-based information technology arrangements (SBITA) at inception and books the corresponding liability. The University has the right to use SBITA assets largely consisting of system-wide IT arrangements. Upon identification of an SBITA the University recognizes a subscription based liability and an intangible right-to-use subscription asset.

**Measurement of Subscription Based Liabilities Amounts** — At SBITA commencement, the University initially measures the subscription based liability at the present value of payments expected to be made during the SBITA term.

Subsequently, the subscription based liability is reduced by the principal portion of payments made. The subscription asset is initially measured as the initial amount of the liability, less payments made at or before the SBITA commencement date, plus any initial direct costs ancillary to placing the underlying asset into service, less any lease incentives received at or before the lease commencement date. Subsequently, the lease asset is amortized into depreciation and amortization expense on a straight-line basis over the shorter of the lease term or the useful life of the underlying asset.

**Key Estimates and Judgments** — Key estimates and judgments include how the University determines (1) the discount rate it uses to calculate the present value of the expected subscription payments, (2) subscription term, and (3) subscription payments.

When available, the University will use the interest rate explicitly or implicitly stated in the SBITA contract. If the rate is not provided within the contract, the University will use its incremental borrowing rate (IBR), based on the University's applicable bond rates. The University's IBR for SBITA agreements is based on the rate of interest it would need to pay if it issued general obligation bonds to borrow an amount equal to the SBITA payments, under similar terms, as of the SBITA commencement or amendment dates.

**Presentation in Statements of Net Position** — SBITA assets are reported with capital assets and subscription based liabilities are reported within current and non-current liabilities in the Statements of Net Position.



## Deferred Outflows and Inflows of Resources

The University accounts for certain transactions that result in the consumption or acquisition in one period that are applicable to future periods as deferred outflows and deferred inflows, respectively, to distinguish them from assets and liabilities. Deferred outflows of resources increase net position, similar to assets and deferred inflows of resources decrease net position, similar to liabilities.

The components of deferred outflows and inflows of resources as of June 30, 2023 and 2022 (\$ in thousands) are presented in **Tables 3** and **4**:

**TABLE 3 – Deferred Outflows of Resources**

As of June 30, 2023 and 2022 (\$ in thousands)

Deferred outflow	2023	2022
Debt refunding	\$ 105,652	\$ 115,519
Certain asset retirement obligations	1,186	1,159
Excess consideration provided for acquisition	40,653	45,435
Impact of changes in assumptions and investment value:		
Pension liability	148,222	115,027
Other postemployment benefits liability	308,213	156,858
<b>Total deferred outflows of resources</b>	<b>\$ 603,926</b>	<b>\$ 433,998</b>

**TABLE 4 – Deferred Inflows of Resources**

As of June 30, 2023 and 2022 (\$ in thousands)

Deferred inflow	2023	2022
Future lease revenues	\$ 215,696	\$ 232,271
Sale of future revenues	35,436	44,451
Experience gains for:		
Pension liability	121,000	266,206
Other postemployment benefits liability	567,109	542,728
<b>Total deferred inflows of resources</b>	<b>\$ 939,241</b>	<b>\$ 1,085,656</b>

## Compensated Absences

Employees earn the right to be compensated during absences for annual vacation leave and sick leave. Upon retirement, termination, or death, certain employees are compensated for unused sick and vacation leave, subject to certain limitations, at their current rate of pay. Within the Statements of Net Position, a liability is recorded for vacation and sick leave benefits earned as of the fiscal year-end. The recorded liability is classified as current and noncurrent on the Statements of Net Position based on the amount estimated to be paid to eligible employees in one year and beyond one year, respectively.

## Unearned Revenue and Advances

Unearned revenue consists of amounts billed or received in advance of the University providing goods or services. Unearned revenue is subsequently earned as qualifying expenses are incurred.

Advances include funds advanced to the University by the U.S. government under the Federal Perkins Loan Program (the Program). Under federal law, the authority for colleges and universities to make new loans under the Program ended on September 30, 2017, and final distributions were permitted through June 30, 2019. The University's Statements of Net Position include both the notes receivable from students and the related refundable liability to the Federal government.

## Tuition and Fees, Net of Scholarship Allowances

Student tuition and fees, housing, dining, and other similar auxiliary revenues are reported net of any related scholarships and fellowships applied to student accounts. However, scholarships and fellowships paid directly to students are separately reported as scholarships and fellowships expense.

Included within scholarship and fellowship expense are student disbursements related to the Higher Education Emergency Relief Fund (HEERF) award (detailed below in Note 1q) which included emergency financial aid to students. The University provided emergency financial aid grants to students of \$2.4 million and \$72.3 million for the years ended June 30, 2023 and 2022, respectively.

## Grants and Contracts

The University receives grants and contracts for research and other activities including medical service reimbursements from federal and state government agencies. The University records revenue at the point all eligibility requirements (e.g. allowable costs are incurred) are met.

The University records the recovery of indirect costs applicable to research programs and other activities which provide for the full or partial reimbursement of such costs, as revenue. Recovery of indirect costs for the years ended June 30, 2023 and 2022 was \$170.8 million and \$173.4 million, respectively, and is a component of grants and contracts revenue on the Statements of Revenues, Expenses, and Changes in Net Position.

As a result of the COVID-19 pandemic, the University was awarded \$255.6 million of COVID-19 assistance, collectively provided under the Higher Education Emergency Relief Fund (HEERF). An additional \$3.0 million was awarded under the Governor's Emergency Education Relief Funds. Under Section 18004(a)(1) of the CARES Act, Section 314(a)(1) of CRRSAA and ARPA, the University provided emergency financial aid grants to students of \$2.4 million and \$72.3 million for the years ended June 30, 2023 and 2022, respectively. These funds were recognized as revenue under nonoperating federal grants. An additional, \$2.8 million and \$70.4 million for the years ended June 30, 2023 and 2022, respectively, was used to recover a portion of lost revenue and additional financial aid to students. These funds were also recorded under non-operating federal grant revenue. There are no unexpended HEERF funds as of June 30, 2023.

## Auxiliary Enterprises

An auxiliary enterprise is an activity that exists to furnish a service to students, faculty or staff acting in a personal capacity, and that charges a fee for the use of goods and services.

## Fringe Benefits for Current Employees and Postemployment Obligations

The University participates in the Commonwealth's fringe benefit programs, including active employee and postemployment health insurance, unemployment compensation, pension, and workers' compensation benefits. Health insurance and pension costs for active employees and retirees are paid through a fringe benefit rate charged to the University by the Commonwealth. Workers' compensation costs are assessed separately based on actual University experience.

## Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the dates of the financial statements, and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from these estimates. The most significant areas that require management estimates relate to valuation of certain investments and derivative instruments, useful lives and related depreciation of capital assets, and accruals for pension and other postemployment related benefits.



## Income Tax Status

The University is exempt from Federal and state income tax under the doctrine of intergovernmental tax immunity. The University qualifies as a public charity eligible to receive charitable contributions under Section 170(b)(1)(A)(v) of the Internal Revenue Code, as amended (the Code).

The University and its component units are required to assess uncertain tax positions and have determined that there were no such positions that are material to the financial statements as of June 30, 2023 and 2022, respectively.

## Reclassifications

Certain reclassifications were made in the prior year to conform to current year presentation.

## 2. Cash Held by State Treasurer

Accounts payable, accrued salaries and outlays for capital projects funded by state-appropriated funds totaled \$42.1 million and \$55.2 million at June 30, 2023 and June 30, 2022. The University has recorded a comparable amount of cash held by the State Treasurer for the benefit of the University, which will be subsequently utilized to pay for allowable expenditures. The cash is held in the State Treasurer's pooled cash account. The Commonwealth requires all bank deposits in excess of insurance coverage by the FDIC to be collateralized with a perfected pledge of eligible collateral. 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 Commonwealth Treasurer and Receiver - General.

## 3. Deposits with Bond Trustees

Deposits with bond trustees primarily consist of unspent bond proceeds, amounts held for the future payment of debt service on such borrowings and designated funds from the University's pool loan program.

At June 30, 2023 and 2022, deposits with bond trustees are presented in **Table 5** (\$ in thousands):

**TABLE 5 – Deposits with Bond Trustees**

As of June 30, 2023 and 2022 (\$ in thousands)

Deposits	2023	2022
Cash	\$ 26,291	\$ 27,042
MMDT	316,350	297,003
U.S. Treasury Securities	15,646	195,721
<b>Total deposits with bond trustees</b>	<b>\$ 358,287</b>	<b>\$ 519,766</b>

At June 30, 2023 and 2022, amounts restricted by bond trust agreements for capital projects and other purposes were \$339.3 million and \$501.5 million, respectively.

**Custodial Credit Risk** — The custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, a government will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. As of June 30, 2023 and 2022, the bank balances of uninsured deposits totaled \$7.0 million and \$8.5 million, respectively.

**Interest Rate Risk** — 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 University minimizes the risk of the fair value of securities falling due to changes in interest rates by ensuring securities have effective maturities of less than a year. MMDT and permitted money market accounts have effective maturities of less than one year, thereby limiting the interest rate risk.

**Credit Risk** — Credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. The risk is measured by the assignment of a rating by a nationally recognized statistical rating organization. MMDT and permitted money market accounts are not rated.

## 4. Investments

The investment portfolio of the University reflected on the Statements of Net Position for the years ended June 30, 2023 and 2022, respectively, are shown in **Tables 6** and **7** (\$ in thousands):

**TABLE 6 – Investment Portfolio**

As of June 30, 2023 and 2022 (\$ in thousands)

Investment type	2023	2022
Short-term investments	\$ 646,473	\$ 787,356
Long-term investments	1,364,207	1,052,299
<b>Total</b>	<b>\$ 2,010,680</b>	<b>\$ 1,839,655</b>

Investment policies are established by the Board. The goals of these policies are to preserve capital, provide liquidity, and generate investment income. The University has statutory authority under Massachusetts General Laws, Chapter 75 to collect, manage, and disburse its trust funds. UMF holds certain investments on behalf of the University, referred to as foundation agency funds.

The investment holdings of the University, including foundation agency funds, as of June 30, 2023 and 2022, are summarized in **Table 7** (\$ in thousands):

**TABLE 7 – Investment Holdings of the University**

As of June 30, 2023 and 2022 (\$ in thousands)

University investment holdings	2023	2022
<b>University managed funds</b>		
Cash and cash equivalents	\$ -	\$ 54,009
Money market and other investments	176,000	333,002
MMDT	300,000	262,000
Fixed income investments	511,356	269,203
Commercial ventures and intellectual property	2,457	2,564
Annuity life income funds	6,548	4,041
<b>Total University managed funds</b>	<b>996,361</b>	<b>924,819</b>
<b>Foundation agency funds</b>		
Pooled investments – Fund I	845,245	777,573
Short term pool	169,074	137,263
<b>Total Foundation agency funds</b>	<b>1,014,319</b>	<b>914,836</b>
<b>Total University investments</b>	<b>\$ 2,010,680</b>	<b>\$ 1,839,655</b>

Pooled Investments — Fund I represents the endowment funds and University operating cash held at the UMF. The endowment funds include both donor-restricted endowments and quasi-endowments. The investment horizon for this portfolio is 5 to 10 years.

Short-Term Pool represents a portion of the operating cash balances of the University that have been transferred to UMF for investment purposes only. This portfolio has a high degree of liquidity. The asset allocation is 25% U.S. equities and 75% short-term corporate bonds. The University Treasurer has the authority to request the return of funds at any time to meet the operating needs of the University.

In addition to Foundation agency funds, the Foundations' assets also include investments not reported within the University's Statements of Net Position. Total investments of the Foundations as of June 30, 2023 and 2022, are summarized in **Table 8** (\$ in thousands):

**TABLE 8 – Investment Holdings of the Foundations**

As of June 30, 2023 and 2022 (\$ in thousands)

<b>Foundations investment holdings</b>	<b>2023</b>	<b>2022</b>
<b>Foundations non-agency funds</b>		
Cash and cash equivalents	\$ 44,394	\$ 40,544
Money market and other investments	9,808	9,195
Fixed income investments	389	384
Pooled investments – Fund I	933,933	762,925
Annuity life income funds	3,754	3,404
<b>Total Foundations non-agency funds</b>	<b>992,278</b>	<b>816,452</b>
<b>Foundation agency funds</b> (detailed in Table 7)	<b>1,014,319</b>	<b>914,836</b>
<b>Total Foundations investments</b>	<b>\$ 2,006,597</b>	<b>\$ 1,731,288</b>

**Custodial Credit Risk** — Investment securities are exposed to custodial credit risk if they are uninsured or not registered in the name of the University and are held by either the counterparty or the counterparty's trust department or agent but not in the University's name.

The carrying amounts of cash balances with uninsured or uncollateralized deposits were \$5.3 million and \$109.6 million, at June 30, 2023 and 2022, respectively.

The University held non-money market investments with a fair market value of \$1.5 billion and \$1.1 billion at June 30, 2023 and 2022, respectively. In the event of negligence due to the University's custodian and/or investment manager(s), it is expected that the investment balances would be fully recovered. However, these amounts are subject to both interest rate risk and credit risk.

**Concentration of Credit Risk** — As of June 30, 2023 and 2022, there is no concentration of investments from one issuer equal to or greater than 5% of the portfolio. Investments issued or guaranteed by the U.S. government, as well as investments in mutual funds and other pooled investments are excluded from consideration when evaluating concentration risk.

**Credit Risk** — The University's Investment Policy and Guidelines Statement allows each portfolio manager full discretion within the parameters of the investment guidelines specific to that manager. Nationally recognized statistical rating organizations, such as Standards & Poor's (S&P) assign credit ratings to security issues and issuers that indicate a measure of potential credit risk to investors.

**Table 9** presents the debt investments, excluding U.S. Treasury funds, at fair value by credit quality of the University's investment portfolio as of June 30, 2023 (\$ in thousands):

**TABLE 9 – S&P Quality Ratings FY2023**

As of June 30, 2023 (\$ in thousands)

Debt securities	AAA	AA	A	BBB	BB	Unrated	Total
Government agency bonds	\$ -	\$ 29,013	\$ -	\$ -	\$ -	\$ 6,901	\$ 35,914
Asset backed securities	59,880	401	2,970	3,643	-	506	67,400
Commercial mortgage-backed securities	21,315	-	-	1,215	-	1,781	24,311
Commercial Paper	-	-	-	-	-	10,520	10,520
Government mortgage-backed securities	-	-	-	-	-	22,412	22,412
Non-government backed collateralized mortgage obligations	2,934	-	-	-	-	82	3,016
Corporate bonds	3,815	19,288	88,086	62,340	406	337	174,272
Municipal and provincial bonds	630	6,920	483	-	-	343	8,376
Index linked government bonds	-	-	-	-	-	951	951
Bond funds, including exchange traded funds	18	361	1,078	-	-	126,385	127,842
<b>Total debt securities</b>	<b>\$ 88,592</b>	<b>\$ 55,983</b>	<b>\$ 92,617</b>	<b>\$ 67,198</b>	<b>\$ 406</b>	<b>\$ 170,218</b>	<b>\$ 475,014</b>

**Table 10** presents the debt investments, excluding U.S. Treasury funds, at fair value by credit quality of the University's investment portfolio as of June 30, 2022 (\$ in thousands):

**TABLE 10 – S&P Quality Ratings FY2022**

As of June 30, 2022 (\$ in thousands)

Debt securities	AAA	AA	A	BBB	BB	Unrated	Total
Government agency bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,929	\$ 6,929
Asset backed securities	20,697	1,258	3,869	3,366	-	679	29,869
Commercial mortgage-backed securities	23,103	-	-	1,432	-	2,019	26,554
Government mortgage-backed securities	-	-	-	-	-	16,354	16,354
Non-government backed collateralized mortgage obligations	3,304	-	-	-	-	99	3,403
Corporate bonds	1,312	2,273	41,162	70,506	379	376	116,008
Municipal and provincial bonds	235	4,061	1,549	356	-	351	6,552
Index linked government bonds	-	-	-	-	-	522	522
Bond funds, including exchange traded funds	20	904	603	-	-	103,635	105,162
<b>Total debt securities</b>	<b>\$ 48,671</b>	<b>\$ 8,496</b>	<b>\$ 47,183</b>	<b>\$ 75,660</b>	<b>\$ 379</b>	<b>\$ 130,964</b>	<b>\$ 311,353</b>



**Interest Rate Risk** — The University's Investment Policy and Guidelines Statement establishes targets for the preferred duration of the fixed income component of the investment portfolio by limiting investments through targeted allocations to different asset classes.

**Table 11** presents the fair value of the debt investments component of the University's investment portfolio by investment maturity as of June 30, 2023 (\$ in thousands):

**TABLE 11 – Investment Maturity (in years), FY2023**

As of June 30, 2023 (\$ in thousands)

Debt securities	Less than 1	1 to 5	6 to 10	More than 10	Total
U.S. Treasury securities	\$ 21,878	\$ 174,975	\$ 18,179	\$ -	\$ 215,032
Government agency bonds	8	29,461	4,833	1,612	35,914
Asset backed securities	11,755	53,922	1,723	-	67,400
Commercial mortgage-backed securities	8,007	15,738	566	-	24,311
Commercial Paper	10,520	-	-	-	10,520
Government mortgage-backed securities	1,546	15,222	5,644	-	22,412
Non-government backed collateralized mortgage obligations	-	3,016	-	-	3,016
Corporate bonds	32,273	136,372	5,627	-	174,272
Municipal and provincial bonds	1,274	5,602	1,500	-	8,376
Index linked government bonds	-	951	-	-	951
Bond funds, including exchange traded funds	-	126,754	1,070	18	127,842
<b>Total debt securities</b>	<b>\$ 87,261</b>	<b>\$ 562,013</b>	<b>\$ 39,142</b>	<b>\$ 1,630</b>	<b>\$ 690,046</b>

**Table 12** presents the fair value of the debt investments component of the University's investment portfolio by investment maturity as of June 30, 2022 (\$ in thousands):

**TABLE 12 – Investment Maturity (in years), FY2022**

As of June 30, 2022 (\$ in thousands)

Debt securities	Less than 1	1 to 5	6 to 10	More than 10	Total
U.S. Treasury securities	\$ -	\$ 89,244	\$ 29,756	\$ 4,515	\$ 123,515
Government agency bonds	-	440	978	5,511	6,929
Asset backed securities	6,369	20,351	3,149	-	29,869
Commercial mortgage-backed securities	5,617	19,135	1,802	-	26,554
Government mortgage-backed securities	2,760	4,908	8,686	-	16,354
Non-government backed collateralized mortgage obligations	-	3,403	-	-	3,403
Corporate bonds	16,126	88,470	11,033	379	116,008
Municipal and provincial bonds	3,627	2,574	351	-	6,552
Index linked government bonds	-	522	-	-	522
Bond funds, including exchange traded funds	-	104,023	1,119	20	105,162
<b>Total debt securities</b>	<b>\$ 34,499</b>	<b>\$ 333,070</b>	<b>\$ 56,874</b>	<b>\$ 10,425</b>	<b>\$ 434,868</b>

**Fair Value Measurement** — Fair value represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The University categorizes these assets and liabilities measured at fair value using a three-tiered hierarchy based on the valuation methodologies employed. The hierarchy is defined as follows:

**Level 1** — Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that are available at the measurement date.

**Level 2** — Inputs to the valuation methodology include:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability;
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

**Level 3** — Inputs to the valuation methodology are unobservable and significant to the fair value measurement. Unobservable inputs reflect the University's own assumptions about the inputs market participants would use in pricing the asset or liability (including assumption about risk). Unobservable inputs are developed based on the best information available in the circumstances and may include the University's own data.

When available, quoted prices are used to determine fair value. When quoted prices in active markets are available, investments are classified within Level 1 of the fair value hierarchy. The University's Level 1 investments primarily consist of investments in U.S. Treasury obligations, equity securities, and mutual funds. When quoted prices in active markets are not available, fair values are based on evaluated prices received from the University's investment custodian in conjunction with a third-party service provider and are reported within Level 2 of the fair value hierarchy. The inputs for Level 2 include, but are not limited to, pricing models such as benchmarking yields, reported trades, broker-dealer quotes, issuer spreads and benchmarking securities, among others. The University's Level 2 investments primarily consist of investments in U.S. government and agency obligations, asset-backed securities, and corporate debt securities that did not trade on the University's fiscal year end date.

As a practical expedient to estimate the fair value of the University's interests, certain investments in commingled funds and limited partnerships are reported at the net asset value (NAV) determined by the fund managers. Because these investments are not readily marketable, their estimated fair values may differ from the values that would have been assigned had a ready market for such investments existed, and such differences could be material. As of June 30, 2023 and 2022, the University had no plans or intentions to sell such investments at amounts different from NAV.



**Table 13** summarizes the fair value of the University's investments by type as of June 30, 2023 (\$ in thousands):

**TABLE 13 – Fair Value Hierarchy of Investments, FY2023**

As of June 30, 2023 (\$ in thousands)

Investment	Investments measured at NAV	Investments classified in the fair value hierarchy Level 1	Investments classified in the fair value hierarchy Level 2	Investments classified in the fair value hierarchy Level 3	Total
<b>Money market funds</b>	\$ -	\$ 212,555	\$ -	\$ -	\$ 212,555
<b>Debt securities</b>					
U.S. Treasury securities	-	215,032	-	-	215,032
Government agency bonds	-	-	35,914	-	35,914
Asset backed securities	-	-	67,400	-	67,400
Commercial mortgage-backed securities	-	-	24,311	-	24,311
Commercial Paper	-	-	10,520	-	10,520
Government mortgage-backed securities	-	-	22,412	-	22,412
Non-government backed collateralized mortgage obligations	-	-	3,016	-	3,016
Corporate bonds	-	-	174,271	1	174,272
Non US Corporate bonds	-	-	-	-	-
Municipal and provincial bonds	-	-	8,376	-	8,376
Index linked government Bonds	-	-	951	-	951
Bond funds, including exchange traded funds	-	127,842	-	-	127,842
<b>Total debt securities</b>	-	<b>342,874</b>	<b>347,171</b>	<b>1</b>	<b>690,046</b>
<b>Equity securities</b>					
Domestic equities	-	144,055	-	1,785	145,840
International equities	-	37,450	-	-	37,450
<b>Total equity securities</b>	-	<b>181,505</b>	-	<b>1,785</b>	<b>183,290</b>
<b>Alternative investments</b>					
Multi-strategy hedge funds					
Equity	299,003	-	-	-	299,003
Long/short	148,353	-	-	-	148,353
Fixed income	39,717	-	-	-	39,717
Absolute return	36,987	-	-	-	36,987
Real assets	9,581	-	-	-	9,581
Private equity and venture capital	69,991	-	-	-	69,991
Private debt	13,933	-	-	-	13,933
Private real estate	7,224	-	-	-	7,224
<b>Total alternative investments</b>	<b>624,789</b>	-	-	-	<b>624,789</b>
<b>Total investments at fair value</b>	<b>624,789</b>	<b>736,934</b>	<b>347,171</b>	<b>1,786</b>	<b>1,710,680</b>
MMDT	-	-	-	-	300,000
<b>Total investments at cost</b>	-	-	-	-	<b>300,000</b>
<b>Total investments</b>	<b>\$ 624,789</b>	<b>\$ 736,934</b>	<b>\$ 347,171</b>	<b>\$ 1,786</b>	<b>\$ 2,010,680</b>

**Table 14** presents unfunded commitments, redemption terms, restrictions, and notice period for investments that have been valued using NAV as a practical expedient as of June 30, 2023 (\$ in thousands):

**TABLE 14 – Alternative Investments, FY2023**

As of June 30, 2023 (\$ in thousands)

Alternative investments	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Multi-strategy hedge funds					
Equity	\$ 299,003	\$ -	Daily to annual	1-90 days	Lock-up provisions range from none to 2 years.
Long/short	148,353	-	Quarterly to annual	45-90 days	Lock-up provisions range from none to 2 years.
Fixed income	39,717	-	Quarterly to semi-annual	60-90 days	No lock-up restrictions
Absolute return	36,987	-	Quarterly to annual	45-65 days	No lock-up restrictions
Real assets	9,581	-	Annual	90 days	No lock-up restrictions
Private equity and venture capital	69,991	30,392	Closed end funds	*	Not redeemable
Private debt	13,933	8,933	Closed end funds	*	Not redeemable
Private real estate	7,224	1,353	Closed end funds	*	Not redeemable
<b>Total</b>	<b>\$624,789</b>	<b>\$ 40,678</b>			

\* The University has made commitments to various private equity and venture debt partnerships. The University expects these funds to be called over the next 1-5 years. Liquidity is expected to be received in the next 1-9 years.





**Table 15** summarizes the fair value of the University's investments by type as of June 30, 2022 (\$ in thousands):

**TABLE 15 – Fair Value Hierarchy of Investments, FY2022**

As of June 30, 2022 (\$ in thousands)

Investment	Investments measured at NAV	Investments classified in the fair value hierarchy Level 1	Investments classified in the fair value hierarchy Level 2	Investments classified in the fair value hierarchy Level 3	Total
<b>Money market funds</b>	\$ -	\$ 424,859	\$ -	\$ -	\$ 424,859
<b>Debt securities</b>					
U.S. Treasury securities	-	123,515	-	-	123,515
Government agency bonds	-	-	6,929	-	6,929
Asset backed securities	-	-	29,869	-	29,869
Commercial mortgage-backed securities	-	-	26,554	-	26,554
Government mortgage-backed securities	-	-	16,354	-	16,354
Non-government backed collateralized mortgage obligations	-	-	3,403	-	3,403
Corporate bonds	-	-	115,966	42	116,008
Municipal and provincial bonds	-	-	6,552	-	6,552
Index linked government Bonds	-	-	522	-	522
Bond funds, including exchange traded funds	-	105,162	-	-	105,162
<b>Total debt securities</b>	-	<b>228,677</b>	<b>206,149</b>	<b>42</b>	<b>434,868</b>
<b>Equity securities</b>					
Domestic equities	-	93,934	-	1,635	95,569
International equities	-	29,611	-	-	29,611
<b>Total equity securities</b>	-	<b>123,545</b>	-	<b>1,635</b>	<b>125,180</b>
<b>Alternative investments</b>					
Multi-strategy hedge funds					
Equity	218,694	-	-	-	218,694
Long/short	150,695	-	-	-	150,695
Fixed income	31,424	-	-	-	31,424
Absolute return	34,678	-	-	-	34,678
Real assets	6,508	-	-	-	6,508
Private equity and venture capital	74,198	-	-	-	74,198
Private debt	14,521	-	-	-	14,521
Private real estate	8,021	-	-	-	8,021
<b>Total alternative investments</b>	<b>538,739</b>	-	-	-	<b>538,739</b>
<b>Total investments at fair value</b>	<b>538,739</b>	<b>777,081</b>	<b>206,149</b>	<b>1,677</b>	<b>1,523,646</b>
Cash and cash equivalents	-	-	-	-	54,009
MMDT	-	-	-	-	262,000
<b>Total investments at cost</b>	-	-	-	-	<b>316,009</b>
<b>Total investments</b>	<b>\$ 538,739</b>	<b>\$ 777,081</b>	<b>\$ 206,149</b>	<b>\$ 1,677</b>	<b>\$ 1,839,655</b>

**Table 16** presents unfunded commitments, redemption terms, restrictions, and notice period for investments that have been valued using NAV as a practical expedient as of June 30, 2022 (\$ in thousands):

**TABLE 16 – Alternative Investments, FY2022**

As of June 30, 2022 (\$ in thousands)

Alternative investments	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Multi-strategy hedge funds					
Equity	\$ 218,694	\$ -	Daily to annual	1–90 days	Lock-up provisions range from none to 2 years.
Long/short	150,695	-	Quarterly to annual	45–90 days	Lock-up provisions range from none to 2 years.
Fixed income	31,424	-	Quarterly to semi-annual	60–90 days	No lock-up restrictions
Absolute return	34,678	-	Quarterly to annual	45–65 days	No lock-up restrictions
Real assets	6,508	-	Annual	90 days	No lock-up restrictions
Private equity and venture capital	74,198	20,191	Closed end funds	*	Not redeemable
Private debt	14,521	9,515	Closed end funds	*	Not redeemable
Private real estate	8,021	1,411	Closed end funds	*	Not redeemable
<b>Total</b>	<b>\$ 538,739</b>	<b>\$ 31,117</b>			

\* The University has made commitments to various private equity and venture debt partnerships. The University expects these funds to be called over the next 1–5 years. Liquidity is expected to be received in the next 1–9 years.

## 5. Accounts Receivable, Net

Accounts receivable as of June 30, 2023 and 2022 are presented in **Table 17** (\$ in thousands):

**TABLE 17 – Accounts Receivable, Net**

As of June 30, 2023 and 2022 (\$ in thousands)

Accounts receivable	2023	2022
Student tuition and fees	\$ 71,110	\$ 68,216
Student loans	21,780	26,731
Pledges	47,751	50,458
Grants and contracts	141,953	129,634
ForHealth program	57,520	75,374
UMass Memorial	14,583	9,791
Other	37,967	57,239
Total accounts receivable	392,664	417,443
Less: allowance for doubtful accounts and discount to present value for pledges	(28,544)	(31,886)
<b>Accounts receivable, net</b>	<b>\$ 364,120</b>	<b>\$ 385,557</b>

## 6. UMass Memorial Medical Center

In 1998, the University entered into an Amended and Restated Definitive Agreement (Definitive Agreement) whereby the University separated its clinical health care operations from its ongoing academic operations. As part of the Definitive Agreement, the University entered into a 99-year Academic Affiliation and Support Agreement (Affiliation Agreement), expiring on June 30, 2097, with UMass Memorial (successor to the clinical operations) whereby UMass Memorial is required to make annual inflation adjusted payments to the University provided the University continues to operate a medical school. For the years ending June 30, 2023 and 2022, the inflation adjusted income recognized totaled approximately \$21.6 million and \$20.4 million and was recorded as other operating revenue in the accompanying financial statements.

Other provisions of the Definitive agreement include terms for reimbursement of shared services, cross-funded employees, and other agreed upon activities. For the years ended June 30, 2023 and 2022, the reimbursements received for services provided to UMass Memorial, which offset the University's operating expenses, were \$156.3 million and \$154.4 million, respectively. Included in these amounts are payroll paid by the University on behalf of UMass Memorial in an agency capacity, recorded as an offset to operating expenses, in the amount of \$111.0 million and \$109.9 million for the years ended June 30, 2023 and 2022, respectively.

As of June 30, 2023 and 2022, the University has recorded a receivable, from UMass Memorial, in the amount of \$14.6 million and \$9.8 million. The University has recorded a payable of \$3.7 million and \$4.8 million at June 30, 2023 and 2022, respectively.

## 7. Capital Assets

**Table 18** represents the University's capital assets activity for the ended years June 30, 2023 and 2022 (\$ in thousands):

**TABLE 18 – Capital Assets Activity**

For the years ended June 30 (\$ in thousands)

Asset	As of 2021	Additions*	Retirements / adjustments	As of 2022	Additions	Retirements / adjustments	As of 2023
Land	\$ 169,987	\$ 19,288	\$ (801)	\$ 188,474	\$ 656	\$ (18,500)	\$ 170,630
Buildings and improvements	7,679,548	210,606	(23,447)	7,866,707	256,063	(68,635)	8,054,135
Software	126,068	2,439	-	128,507	5,999	(482)	134,024
Equipment and furniture	686,659	73,091	(42,942)	716,808	48,112	(55,465)	709,455
Library books	32,623	-	(6,983)	25,640	-	(7,197)	18,443
Right of use assets (note 9)	212,934	52,643	(3,308)	262,269	12,895	(32,139)	243,025
<b>Total</b>	<b>8,907,819</b>	<b>358,067</b>	<b>(77,481)</b>	<b>9,188,405</b>	<b>323,725</b>	<b>(182,418)</b>	<b>9,329,712</b>
Accumulated depreciation/ amortization	(3,751,483)	(363,736)	65,251	(4,049,968)	(339,888)	117,635	(4,272,221)
<b>Total</b>	<b>5,156,336</b>	<b>(5,669)</b>	<b>(12,230)</b>	<b>5,138,437</b>	<b>(16,163)</b>	<b>(64,783)</b>	<b>5,057,491</b>
Construction in progress	278,938	306,844	(175,165)	410,617	379,571	(232,378)	557,810
<b>Total capital assets, net</b>	<b>\$ 5,435,274</b>	<b>\$ 301,175</b>	<b>\$ (187,395)</b>	<b>\$ 5,549,054</b>	<b>\$ 363,408</b>	<b>\$ (297,161)</b>	<b>\$ 5,615,301</b>

\* Includes assets of \$53.3 million from acquisition of Brandman University

## 8. Business Acquisition

Effective September 1, 2021 the University acquired Brandman University in exchange for \$139.3 million and the assumption of all Brandman's existing liabilities totaling \$59.2 million. The acquisition included all of the assets of Brandman University totaling \$150.7 million.

The transaction resulted in deferred outflows of resources of \$47.8 million as of the acquisition date. The deferred outflows of resources are being amortized over a 10-year period. As of June 30, 2023 and 2022 there were \$40.7 and \$45.4 million, respectively of deferred outflows of resources remaining associated with the acquisition.

## 9. Public–Private Partnerships and Leases

The University has entered into three Public-Private Partnerships (PPP), one of which meets the definition of a service concession arrangement (SCA), the remaining two do not meet the definition of an SCA.

### PPPs Meeting the Definition of an SCA

On July 7, 2022, the University entered into an SCA with Mass Ave Housing Partners LLC (Project Company), to carry out the design, construction, financing, operation, management, and maintenance of a portion of the Student Housing Project on the Amherst campus consisting of approximately 600 beds of undergraduate apartment-style housing and approximately 200 beds of graduate student apartment-style housing and related infrastructure, including parking. The Project Company will manage, maintain, and operate the Student Housing Facilities and be entitled to all user fees associated with the project as defined, for a term of 65-years. At the end of the arrangement, operation of the Student Housing Project will be transferred to the University. The estimated cost of construction of the Student Housing Project is \$250.0 million. In accordance with GASB Statement No. 94, the University will record an asset and corresponding deferred inflow for the cost of the Student Housing Project when the related assets are placed into service which is expected to occur in the third quarter of FY2024.

In accordance with SCA agreements, the University received from the Project Company a lump-sum payment of \$20.0 million which is included in other noncurrent liabilities in the accompanying financial statements.

### PPPs Not Meeting the Definition of an SCA

On November 8, 2016, the University entered into an agreement with Provident Commonwealth Educational Resources, Inc. (PCER), a Massachusetts not-for-profit corporation to construct and operate for 40 years a 1,082-bed student housing facility at its Boston campus (Boston Project). The Boston Project reverts to the University in 2056.

The Boston Project was financed with \$130.1 million of revenue bonds issued on October 26, 2016 (Series 2016 Bonds) by the Massachusetts Development Finance Agency (MassDevelopment) pursuant to a Loan and Trust Agreement between MassDevelopment and PCER. Neither the Authority, University nor Boston campus have pledged revenues to secure the payment of the Series 2016 bonds or have any obligation with respect to payment of the Series 2016 bonds.

On November 14, 2018, the University entered into an agreement with Provident Commonwealth Educational Resources II, Inc. (PCER II), a Massachusetts not-for-profit corporation to construct and operate for 45 years a 1,210-bed student housing facility at its Dartmouth campus (Dartmouth Project). The Dartmouth Project reverts to the University in 2064.

The Dartmouth Project was financed with \$132.19 million of revenue bonds issued on November 14, 2018 (Series 2018 Bonds) by the Massachusetts Development Finance Agency (MassDevelopment) pursuant to a Loan and Trust Agreement between MassDevelopment and PCER II. Neither the Authority, University nor Dartmouth campus have pledged revenues to secure the payment of the Series 2018 bonds or have any obligation with respect to payment of the Series 2018 bonds.

Management evaluated the applicability of relevant GASB guidance against the underlying Boston and Dartmouth Project agreements and indentures and has concluded that the associated debt should not be recognized on the financial statements of the University.

In accordance with GASB Statement No. 94, PPP's that do not meet the definition of an SCA are recorded based upon the operators' (PCER and PCER II) estimated carrying value of the underlying PPP assets as of the expected date of transfer in ownership to the University. At of June 30, 2023 and 2022, the estimated carrying value of the assets upon ownership transfer for the Boston

Project (2056) and the Dartmouth Project (2064) were deemed immaterial and therefore no amounts have been recorded in the accompanying financial statements.

## Ground Leases

Pursuant to the Boston and Dartmouth Project PPP agreements, the University entered into the following ground leases. For the Boston Project, commencing January 1, 2019, and continuing for a term of 40 years, the annual rental amount payable to the University is \$1.0 million. For the Dartmouth Project, commencing January 1, 2021, and continuing for a term of 45 years, the rental amount payable to the University is \$625.0 thousand, increasing by 3% every five years.

As of June 30, 2023 and 2022 the University has current receivables past due of \$3.9 million and \$2.3 million, respectively, related to the Boston and Dartmouth ground leases.

## Direct Financing Lease

In accordance with the GASB 87 transition guidance, the University has not restated the underlying assets related to its direct finance lease.

On October 27, 2009, the University entered into an agreement to lease its facility located on Morrissey Boulevard in Dorchester, Massachusetts (the Facility) to the Edward M. Kennedy Institute for the United States Senate (EMKI), a charitable corporation registered in the District of Columbia. The lease agreement provides for an initial term of ninety-nine years commencing in October 2009, and thereafter, at the option of EMKI, may be extended for two additional ninety-nine-year periods.

EMKI has an option to purchase the Facility for one dollar at any time after the earlier of: (i) payment of no less than 51% or defeasement of the original amount of the associated revenue bonds. The University has right of first refusal in the event EMKI decides to sell or otherwise dispose of the ownership of the Facility.

The project was financed with \$74.4 million of revenue bonds. Rent is equal to the debt service on the outstanding bonds and payable semiannually through fiscal year 2043.

At June 30, 2023 and 2022, the University recorded gross lease receivable of approximately \$91.5 million and \$96.6 million, respectively related to the EMKI lease. Also at June 30, 2023 and 2022, the University recorded unearned interest income of approximately \$23.7 million and \$25.9 million, respectively related to the EMKI lease. The University presents the unearned interest income associated with the EMKI lease as other current liabilities of approximately \$2.2 million and \$2.2 million and other noncurrent liabilities of approximately \$21.5 million and \$23.7 million as of June 30, 2023 and 2022, respectively.

For the years ended June 30, 2023 and 2022, the University recognized \$2.2 million and \$2.3 million, respectively, of interest income related to its EMKI direct financing lease.

## Lessee Leases and Subscriptions

The University is a lessee for various noncancellable real estate.

The University has executed long-term leases with the Commonwealth, acting by and through the Trustees, covering the land on which facilities owned by the Building Authority are located on the University's campuses. These leases call for nominal annual payments to the Commonwealth. Certain of these leases renew automatically for subsequent five- or ten-year periods unless the Building Authority notifies the University that it does not wish to renew. Other leases require the Building Authority to notify the University of its desire to renew. As of June 30, 2023, all leases with the Commonwealth were in good standing and any leases requiring action by the Building Authority during the year to facilitate their renewals were properly renewed.

As provided in the Enabling Act, each of the above-referenced leases also terminates when the Building Authority no longer has any bonds outstanding, at which time all Building Authority property becomes the property of the Commonwealth.

In addition, the University has entered into SBITA's for various information technology agreements and are identified in **Table 19** under subscriptions.



**Table 19** presents a summary of right of use asset activity during the year ended June 30:

**TABLE 19 – Right of Use Asset Activity**

For the years ended June 30 (\$ in thousands)

Asset	As of 2021*	Additions	Remeasurements / terminations	As of 2022	Additions	Remeasurements / terminations	As of 2023
Right of use assets							
Real estate	\$ 212,934	\$ 24,880	\$ (2,556)	\$ 235,258	\$ 1,342	\$ (32,148)	\$ 204,452
Equipment	-	114	-	114	190	(60)	244
SBITA subscriptions	19,868	7,781	(752)	26,897	11,363	69	38,329
<b>Total</b>	<b>232,802</b>	<b>32,775</b>	<b>(3,308)</b>	<b>262,269</b>	<b>12,895</b>	<b>(32,139)</b>	<b>243,025</b>
Accumulated amortization	(19,181)	(35,380)	2,556	(52,005)	(25,549)	19,278	(58,276)
<b>Total right of use assets, net</b>	<b>\$ 213,621</b>	<b>\$ (2,605)</b>	<b>\$ (752)</b>	<b>\$ 210,264</b>	<b>\$ (12,654)</b>	<b>\$ (12,861)</b>	<b>\$ 184,749</b>

\* Restated to reflect GASB-96 implementation



## Lease and Subscription Liabilities

**Table 20** presents a summary of changes in the related lease and subscription liabilities during the year ended June 30, 2023 (\$ in thousands):

**TABLE 20 – Lease and Subscription Liabilities, FY2023**

For the year ended June 30, 2023 (\$ in thousands)

Liability	As of 2022	Additions	Remeasurements	Deductions	As of 2023	Due in one year
Real estate	\$ 199,837	\$ 1,342	\$ (13,805)	\$ (12,823)	\$ 174,551	\$ 12,095
Equipment	819	190	(816)	(40)	153	37
SBITA subscriptions	19,757	10,178	-	(10,015)	19,920	7,499
<b>Total lease and subscription liability</b>	<b>\$ 220,413</b>	<b>\$ 11,710</b>	<b>\$ (14,621)</b>	<b>\$ (22,878)</b>	<b>\$ 194,624</b>	<b>\$ 19,631</b>

**Table 21** presents a summary of changes in the related lease and subscription liabilities during the year ended June 30, 2022 (\$ in thousands):

**TABLE 21 – Lease and Subscription Liabilities, FY2022**

For the year ended June 30, 2022 (\$ in thousands)

Liability	As of 2021*	Additions	Remeasurements	Deductions	As of 2022	Due in one year
Real estate	\$ 200,805	\$ 7,150	\$ 6,223	\$ (14,341)	\$ 199,837	\$ 12,911
Equipment	-	119	755	(55)	819	2,136
SBITA subscriptions	19,868	5,657	-	(5,768)	19,757	7,014
<b>Total lease and subscription liability</b>	<b>\$ 220,673</b>	<b>\$ 12,926</b>	<b>\$ 6,978</b>	<b>\$ (20,164)</b>	<b>\$ 220,413</b>	<b>\$ 22,061</b>

\* Restated to reflect GASB-96 implementation

Future annual lease and subscription payments are presented in **Table 22** (\$ in thousands):

**TABLE 22 – Future Annual Lease Payments**

As of June 30, 2023 (\$ in thousands)

Fiscal year	Principal	Interest	Total
2024	\$ 19,631	\$ 5,022	\$ 24,653
2025	16,948	4,566	21,514
2026	13,860	4,154	18,014
2027	12,111	3,815	15,926
2028	11,754	3,525	15,279
2029–2033	55,679	13,214	68,893
2034–2038	51,262	6,080	57,342
2039–2043	10,451	992	11,443
2044–2048	2,928	78	3,006
<b>Total</b>	<b>\$ 194,624</b>	<b>\$ 41,446</b>	<b>\$ 236,070</b>

For the years ended June 30, 2023 and 2022, the University recognized \$4.9 million and \$4.7 million, respectively, of interest expense related to its leases and subscriptions.

## Lessor Leases

The University is a lessor of various leases of buildings, office space and ground leases.

### Lease Receivables

**Table 23** presents a summary of changes in the related lease receivable during the year ended June 30, 2023 (\$ in thousands):

**TABLE 23 – Lease Receivables, FY2023**

For the year ended June 30, 2023 (\$ in thousands)

Receivable	As of 2022	Additions	Remeasurements	Deductions	As of 2023	Due in one year
Real estate leases	\$ 237,497	\$ -	\$ (476)	\$ (12,212)	\$ 224,809	\$ 12,480
Direct financing arrangement	96,622	-	-	(5,073)	91,549	2,665
<b>Total lease receivable</b>	<b>\$ 334,119</b>	<b>\$ -</b>	<b>\$ (476)</b>	<b>\$ (17,285)</b>	<b>\$ 316,358</b>	<b>\$ 15,145</b>

**Table 24** presents a summary of changes in the related lease receivable during the year ended June 30, 2022 (\$ in thousands):

**TABLE 24 – Lease Receivables, FY2022**

For the year ended June 30, 2022 (\$ in thousands)

Receivable	As of 2021*	Additions	Remeasurements	Deductions	As of 2022	Due in one year
Real estate	\$ 189,368	\$ 59,546	\$ 1,710	\$ (13,127)	\$ 237,497	\$ 11,391
Direct financing arrangement	101,694	-	-	(5,072)	96,622	5,073
<b>Total lease receivable</b>	<b>\$ 291,062</b>	<b>\$ 59,546</b>	<b>\$ 1,710</b>	<b>\$ (18,199)</b>	<b>\$ 334,119</b>	<b>\$ 16,464</b>

\* Restated to reflect GASB-96 implementation

For the years ended June 30, 2023 and 2022, the University recognized \$18.4 million and \$20.7 million, respectively, of revenue related to its lessor operating leases, which is included in auxiliary enterprise revenue, other operating revenue and other nonoperating income in the accompanying financial statements.



## 10. Long-Term Debt

**Table 25** represents the outstanding long-term debt as of June 30, 2023, and the related activity during the fiscal year (\$ in thousands):

**TABLE 25 – Long-Term Debt, FY2023**

For the year ended June 30, 2023 (\$ in thousands)

Debt	Original borrowing	Maturity Date	Interest rate	As of 2022	Additions	Reductions	As of 2023
<b>Building Authority</b>							
Series 2009-2	\$ 271,855	2039	6.4–6.6%	\$ 16,945	\$ -	\$ -	\$ 16,945
Series 2009-3	28,570	2039	5.8–6.2%	22,400	-	(775)	21,625
Series 2010-2	430,320	2040	3.8–5.5%	413,610	-	(17,125)	396,485
Series 2010-3	3,005	2040	5.8%	2,420	-	(75)	2,345
Series 2013-1	212,585	2043	2.0–5.0%	8,410	-	(5,845)	2,565
Series 2013-2	71,970	2043	0.4–4.3%	29,590	-	(2,485)	27,105
Series 2013-3	24,640	2043	4.0–5.0%	485	-	(485)	-
Series 2014-1	293,890	2044	3.0–5.0%	62,935	-	(4,135)	58,800
Series 2014-3	67,635	2029	2.0–5.0%	24,345	-	(4,500)	19,845
Series 2014-4	157,855	2025	0.2–3.4%	8,700	-	(2,070)	6,630
Series 2015-1	298,795	2045	4.0–5.0%	266,880	-	-	266,880
Series 2015-2	191,825	2036	3.0–5.0%	133,330	-	(25,620)	107,710
Series 2017-1	165,130	2047	4.0–5.3%	165,130	-	-	165,130
Series 2017-2	19,510	2027	1.6–3.4%	13,570	-	(1,570)	12,000
Series 2017-3	187,680	2038	3.0–5.0%	152,150	-	(3,650)	148,500
Series 2018-1	37,650	2043	2.0–2.9%	37,650	-	-	37,650
Series 2019-1	208,725	2039	5.0%	208,725	-	-	208,725
Series 2020-1	200,840	2050	5.0%	200,840	-	-	200,840
Series 2020-2	129,830	2050	1.8–3.5%	127,845	-	(2,020)	125,825
Series 2020-3	319,345	2044	1.7–3.5%	315,665	-	(2,165)	313,500
Series 2020-4	329,930	2043	0.4%–3.0%	329,930	-	(9,345)	320,585
Series 2021-1	312,330	2037	5.0%	291,750	-	(29,965)	261,785
Series 2021-2	46,585	2036	0.2%	30,835	-	(255)	30,580
Series 2022-1	188,650	2052	5.0%	188,650	-	-	188,650
Series 2022-2	211,270	2045	2.2–4.3%	211,270	-	-	211,270
Unamortized bond premium				241,608	-	(26,455)	215,153
<b>Total Building Authority</b>				<b>3,505,668</b>	<b>-</b>	<b>(138,540)</b>	<b>3,367,128</b>
<b>MHEFA/MDFA</b>							
Series A	20,000	2030	variable	20,000	-	-	20,000
<b>Total MHEFA/MDFA</b>				<b>20,000</b>	<b>-</b>	<b>-</b>	<b>20,000</b>
<b>WCCC MHEFA/MDFA</b>							
Series 2005-D	99,325	2029	5.0–5.3%	425	-	-	425
Unamortized bond premium				15	-	(4)	11
<b>Total WCCC MHEFA/MDFA</b>				<b>440</b>	<b>-</b>	<b>(4)</b>	<b>436</b>
<b>MDFA</b>							
CREBs	1,625	2027	3.5%	478	-	(96)	382
<b>Total bonds payable</b>				<b>3,526,586</b>	<b>-</b>	<b>(138,640)</b>	<b>3,387,946</b>
<b>UMG</b>							
Working capital note	21,100	2025	2.2%	21,100	-	(5,000)	16,100
Building note	37,000	2027	2.2%	37,000	-	(37,000)	-
Change in control note	96,000	2031	0.0%	96,000	-	-	96,000
Unamortized discount				(13,313)	-	1,837	(11,476)
<b>Total notes payable</b>				<b>140,787</b>	<b>-</b>	<b>(40,163)</b>	<b>100,624</b>
<b>Total long-term debt</b>				<b>\$3,667,373</b>	<b>\$ -</b>	<b>\$ (178,803)</b>	<b>\$3,488,570</b>



**Table 26** represents the outstanding long-term debt as of June 30, 2022, and the related activity during the fiscal year (\$ in thousands):

**TABLE 26 – Long-Term Debt, FY2022**

For the year ended June 30, 2022 (\$ in thousands)

Debt	Original borrowing	Maturity date	Interest rate	As of 2021	Additions	Reductions	As of 2022
<b>Building Authority</b>							
Series 2009-2	\$ 271,855	2039	6.4–6.6%	\$ 16,945	\$ -	\$ -	\$ 16,945
Series 2009-3	28,570	2039	5.8–6.2%	23,135	-	(735)	22,400
Series 2010-2	430,320	2040	3.8–5.5%	430,320	-	(16,710)	413,610
Series 2010-3	3,005	2040	5.8%	2,490	-	(70)	2,420
Series 2013-1	212,585	2043	2.0–5.0%	13,735	-	(5,325)	8,410
Series 2013-2	71,970	2043	0.4–4.3%	32,010	-	(2,420)	29,590
Series 2013-3	24,640	2043	4.0–5.0%	945	-	(460)	485
Series 2014-1	293,890	2044	3.0–5.0%	66,825	-	(3,890)	62,935
Series 2014-3	67,635	2029	2.0–5.0%	28,635	-	(4,290)	24,345
Series 2014-4	157,855	2025	0.2–3.4%	13,865	-	(5,165)	8,700
Series 2015-1	298,795	2045	4.0–5.0%	266,880	-	-	266,880
Series 2015-2	191,825	2036	3.0–5.0%	157,765	-	(24,435)	133,330
Series 2017-1	165,130	2047	4.0–5.3%	165,130	-	-	165,130
Series 2017-2	19,510	2027	1.6–3.4%	15,100	-	(1,530)	13,570
Series 2017-3	187,680	2038	3.0–5.0%	155,630	-	(3,480)	152,150
Series 2018-1	37,650	2043	2.0–2.9%	37,650	-	-	37,650
Series 2019-1	208,725	2039	5.0%	208,725	-	-	208,725
Series 2020-1	200,840	2050	5.0%	200,840	-	-	200,840
Series 2020-2	129,830	2050	1.8–3.5%	129,830	-	(1,985)	127,845
Series 2020-3	319,345	2044	1.7–3.5%	317,795	-	(2,130)	315,665
Series 2020-4	329,930	2043	0.4%–3.0%	329,930	-	-	329,930
Series 2021-1	312,330	2037	5.0%	302,270	-	(10,520)	291,750
Series 2021-2	46,585	2036	0.2%	46,585	-	(15,750)	30,835
Series 2022-1	188,650	2052	5.0%	-	188,650	-	188,650
Series 2022-2	211,270	2045	2.2–4.3%	-	211,270	-	211,270
Unamortized bond premium				242,430	26,327	(27,149)	241,608
<b>Total Building Authority</b>				<b>3,205,465</b>	<b>426,247</b>	<b>(126,044)</b>	<b>3,505,668</b>
<b>MHEFA/MDFA</b>							
Series A	20,000	2030	variable	20,000	-	-	20,000
<b>Total MHEFA/MDFA</b>				<b>20,000</b>	<b>-</b>	<b>-</b>	<b>20,000</b>
<b>WCCC MHEFA/MDFA</b>							
Series 2005-D	99,325	2029	5.0–5.3%	425	-	-	425
Unamortized bond premium				20	-	(5)	15
<b>Total WCCC MHEFA/MDFA</b>				<b>445</b>	<b>-</b>	<b>(5)</b>	<b>440</b>
<b>MDFA</b>							
Clean renewable energy bonds	1,625	2027	3.50%	572	-	(94)	478
<b>Total bonds payable</b>				<b>3,226,482</b>	<b>426,247</b>	<b>(126,143)</b>	<b>3,526,586</b>
<b>UMG*</b>							
Working capital note	21,100	2025	2.2%	-	21,100	-	21,100
Building note	37,000	2027	2.2%	-	37,000	-	37,000
Change in control note	96,000	2031	0.0%	-	96,000	-	96,000
Unamortized discount				-	(14,814)	1,501	(13,313)
<b>Total notes payable</b>				<b>-</b>	<b>139,286</b>	<b>1,501</b>	<b>140,787</b>
<b>Total long-term debt</b>				<b>\$ 3,226,482</b>	<b>\$ 565,533</b>	<b>\$ (124,642)</b>	<b>\$ 3,667,373</b>

\* Includes debt incurred through Brandman University acquisition



## Pledged Revenues

The University is obligated under its contracts for financial assistance, management and services with the Building Authority to collect rates, rents, fees and other charges with respect to such facilities sufficient to pay principal and interest on the Building Authority's bonds and certain other costs such as insurance on such facilities.

The University's spendable cash and investments secures the obligations of the University with respect to the MHEFA/MDFA Series A Bonds. The University is required to certify annually that there are sufficient funds in spendable cash and investments to cover the debt service on the Series A Bonds.

## Principal and Interest

Principal and interest, which is estimated using rates in effect at June 30, 2023, on bonds and notes payable for the next five fiscal years and in subsequent five-year periods are presented in **Table 27** (\$ in thousands):

**TABLE 27 – Principal and Interest on Long-term Debt**

(\$ in thousands)

Fiscal Year	Bonds – principal	Bonds – interest	Bonds – interest subsidy*	Direct placement bonds – principal	Direct placement bonds – interest	Notes payable – principal	Notes payable – interest	Total
2024	\$ 123,166	\$ 133,916	\$ (6,993)	\$ 1,655	\$ 754	\$ -	\$ 354	\$ 252,852
2025	121,066	129,233	(6,729)	1,690	718	6,100	304	252,382
2026	117,306	124,241	(6,445)	1,725	684	10,000	138	247,649
2027	120,389	118,994	(6,153)	1,760	649	12,000	-	247,639
2028	125,125	113,607	(5,858)	1,790	615	21,000	-	256,279
2029–2033	667,160	482,081	(24,217)	8,320	3,730	63,000	-	1,200,074
2034–2038	687,235	334,153	(13,702)	9,595	2,429	-	-	1,019,710
2039–2043	630,010	178,353	(2,315)	11,115	901	-	-	818,064
2044–2048	366,985	74,200	-	-	-	-	-	441,185
2049–2053	176,690	18,410	-	-	-	-	-	195,100
<b>Total</b>	<b>\$ 3,135,132</b>	<b>\$ 1,707,188</b>	<b>\$ (72,412)</b>	<b>\$ 37,650</b>	<b>\$ 10,480</b>	<b>\$ 112,100</b>	<b>\$ 796</b>	<b>\$ 4,930,934</b>

\* These interest rate subsidies are provided by the United States Government related to the Authority's issuance of bonds under the Build America Bond (BAB) program. Under the BAB program, the Government provides a direct subsidy of the interest rate paid to bondholders up to 35%. The University's November 1, 2022, and May 1, 2023 subsidy payments related to the Senior Series 2009-2 Project Revenue Build America Bonds and the Senior Series 2010-2 Project Revenue Build America Bonds were both 33.0%. For fiscal year 2024 through fiscal year 2043, the estimated subsidy reflected in the table above is 33.00%.

## Bond Activity

The Authority did not issue any new bonds and there was no refunding activity in FY2023.

In FY2022, the University issued \$188.7 million of Senior Series 2022-1 Project Revenue Bonds and \$211.3 million of Senior Series 2022-2 Project Revenue Bonds.

## Bond Premium (Discount) and Issuance Expenses

The University amortizes the premiums received as a reduction of interest expense over the life of the respective bond issue. No bond activity occurred in FY2023, thus no new bond premium, discount or bond issuance costs were recorded in FY2023. In FY2022, the University received \$26.3 million as premiums at issuance.

In connection with the University's bond issues, the University incurred certain issuance costs associated with the bond offerings. In FY2022, issuance costs were \$2.4 million and were expensed in accordance with the provisions of GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities*.

The \$96.0 million note payable does not have a stated interest rate. As a result, this note has imputed an interest rate, which resulted in a discount of \$14.8 million to be amortized over the life of the note payable. As of June 30, 2023, the remaining amount to be amortized is \$11.5 million.

## Notes Payable

In FY2022, the University entered into three notes payable as part of the Brandman University acquisition agreement. A working capital note payable of \$21.1 million, a building note payable for \$37.0 million and a change in control note payable of \$96.0 million.

## Commercial Paper

The maximum aggregate principal amount of commercial paper which may be outstanding at one time is \$200.0 million. The Commercial Paper Series 2013-A are secured by a new standby liquidity facility agreement with TD Bank, NA that expires on August 3, 2025. As of June 30, 2023, the outstanding commercial paper had a term of 20 days with a maturity date July 20, 2023

**TABLE 28 – Commercial Paper**

As of June 30 (\$ in thousands)

Commercial paper	As of June 30, 2021	Additions	Reductions	As of June 30, 2022	Additions	Reductions	As of June 30, 2023
Commercial paper	\$ 31,000	\$ 86,700	\$ (97,700)	\$ 20,000	\$ 17,250	\$ -	\$ 37,250

The University incurred total fees of \$1.0 million and \$0.7 million in FY2023 and FY2022, respectively, associated with the use of commercial paper.

## Line of Credit

During FY2022, the University amended the existing line of credit agreement with Bank of America maintaining a maximum loan amount of \$150.0 million. The line of credit has an updated maturity date of May 1, 2024.

As of June 30, 2023, the outstanding balance on the line of credit was \$0.

## 11. Other Liabilities

**Table 29** shows current and long-term portions of other liabilities as recorded in the Statements of Net Position (\$ in thousands):

**TABLE 29 – Current Portion and Total Other Liabilities**

As of June 30 (\$ in thousands)

Other Liabilities	As of June 30, 2022	Current portion as of June 30, 2022	As of June 30, 2023	Current portion as of June 30, 2023
Compensated absences*	\$ 129,152	\$ 104,112	\$ 132,131	\$ 106,583
Workers' compensation*	19,656	3,544	19,965	3,853
Unearned revenues	180,763	120,833	213,585	134,432
Advances and deposits	19,262	5,232	15,578	3,950
Other liabilities	139,995	82,066	127,340	63,834

\* The University includes compensated absences and workers' compensation short-term liabilities within accounts payable and accrued expenses on the Statements of Net Position.

## 12. Fringe Benefits

During the years ended June 30, 2023 and 2022, the Commonwealth paid \$467.7 million and \$430.9 million, respectively, for the University's portion of fringe benefit costs which includes pension expense, health insurance for active employees and retirees, and terminal leave. Of this amount, the University reimbursed the Commonwealth \$145.8 million and \$158.0 million during the years ended June 30, 2023 and 2022, respectively. The remaining portion is included in revenue as state appropriations.

## 13. Benefit Plans

### Defined Benefit Plan

The Massachusetts State Employees' Retirement System (MSERS) is a public employee retirement system (PERS) that administers a cost-sharing multi-employer defined benefit plan covering substantially all employees of the Commonwealth including University employees.

MSERS provides 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 to five-year average annual rate of regular compensation depending on the date of hire. 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.

The MSERS' funding policies were established by Chapter 32 of MGL. The Legislature has the authority to amend these policies. The annuity portion of the MSERS 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.

Member contributions for MSERS vary depending on the most recent date of membership, as shown in **Table 30**:

**TABLE 30 – Membership Contributions**

Hire date	% of Compensation
Prior to 1975	5% of regular compensation
1975 – 1983	7% of regular compensation
1984 – 6/30/1996	8% of regular compensation
7/1/1996 – present	9% of regular compensation except for State Police which is 12% of regular compensation
1979 – present	An additional 2% of regular compensation in excess of \$30,000

In addition, members within this group 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.

The University makes contributions on behalf of the employees through a fringe benefit charge assessed by the Commonwealth. The fringe benefit charge amounted to \$185.1 million and \$178.9 million for the years ended June 30, 2023 and 2022, respectively. Annual covered payroll was 76.6% and 76.9% of annual total payroll for the University for the years ended June 30, 2023 and 2022, respectively.

## Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

The net pension liability as of June 30, 2023 was determined based on a measurement date of June 30, 2022 from an actuarial valuation as of January 1, 2022 rolled forward to June 30, 2022. The net pension liability measured as of June 30, 2022 was determined based on a measurement date of June 30, 2021 from an actuarial valuation as of January 1, 2021 rolled forward to June 30, 2021. There are no significant changes known which would impact the total pension liability between the measurement date and the reporting date, other than typical plan experience.

At June 30, 2023 and 2022, the University reported a liability of \$444.8 million and \$276.3 million, respectively, for its proportionate share of MSERS net pension liability, respectively. The University's proportion of the net pension liability was based on a projection of the University's long-term share of contributions to the pension plan relative to the total projected contributions of all participating entities, actuarially determined. The University's proportion of the pension plan at measurement dates of June 30, 2022 and 2021 was 3.2% and 2.6%, respectively.

For the fiscal years ended June 30, 2023 and 2022, the University recognized a net pension expense of \$28.1 million and net pension benefit of \$5.3 million, respectively.

The University reported its proportionate share of MSERS's deferred outflows of resources and deferred inflows of resources related to pensions from the following sources as of June 30, 2023 and 2022 (\$ in thousands), as presented in **Tables 31** and **32**:

**TABLE 31 – University's Proportionate Share of MSERS, FY2023**

As of June 30, 2023 (\$ in thousands)

Pension resource	Deferred outflows of resources	Deferred inflows of resources
Changes of assumptions	\$ 12,247	\$ -
Changes in proportion due to internal allocation	86,900	100,064
Employer contributions after measurement date	37,980	-
Differences between expected and actual experience	11,065	17,362
Net difference between projected and actual investment earnings on pension plan investments	-	2,371
Changes in proportion from Commonwealth	30	1,203
<b>Total</b>	<b>\$ 148,222</b>	<b>\$ 121,000</b>

**TABLE 32 – University's Proportionate Share of MSERS, FY2022**

As of June 30, 2022 (\$ in thousands)

Pension resource	Deferred outflows of resources	Deferred inflows of resources
Changes of assumptions	\$ 18,837	\$ -
Changes in proportion due to internal allocation	41,536	136,997
Employer contributions after measurement date	45,010	-
Differences between expected and actual experience	9,534	20,005
Net difference between projected and actual investment earnings on pension plan investments	-	108,331
Changes in proportion from Commonwealth	110	873
<b>Total</b>	<b>\$ 115,027</b>	<b>\$ 266,206</b>

Amounts reported as deferred outflows of resources relating to pension resulting from the University's contributions subsequent to the measurement date will be recognized as a reduction to pension expense (benefit) in the next fiscal year. The remaining difference between the University's balances of deferred outflows and inflows of resources will be recognized in pension expense (benefit) as presented in **Table 33**:

**TABLE 33 – Amortization of Pension Expense in Future Years**

(\$ in thousands)

Year ended June 30	Pension
2024	\$ (937)
2025	(8,691)
2026	(22,671)
2027	21,541
<b>Total</b>	<b>\$ (10,758)</b>

## Actuarial Assumptions

Significant actuarial assumptions used at each respective measurement date are presented in **Table 34**:

**TABLE 34 – Actuarial Assumptions**

Assumption	June 30, 2022	June 30, 2021
Investment rate of return	7.00%	7.00%
Interest rate credited to the annuity savings fund	3.50%	3.50%
Cost of living increases on the first \$13,000 per year	3.00%	3.00%
Salary increases*	4.0% to 9.0%	4.0% to 9.0%
Mortality rates:		
Pre-retirement	RP-2014 Blue Collar Employees Scale MP-2020 **	RP-2014 Blue Collar Employees Scale MP-2020 **
Post-retirement	RP-2014 Blue Collar Healthy Annuitant Scale MP-2020 **	RP-2014 Blue Collar Healthy Annuitant Scale MP-2020 **
Disability	RP-2014 Blue Collar Healthy Annuitant Scale MP-2020 ***	RP-2014 Blue Collar Healthy Annuitant Scale MP-2020 ***

\* Salary increases were based on analysis of past experiences depending on group and length of service

\*\* Set forward one year for females.

\*\*\* Set forward one year



## Investment Allocation

Investment assets of MSERS are with the Pension Reserves Investment Trust (PRIT) Fund. The long-term expected rate of return on pension 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, 2022 and 2021 are summarized in **Tables 35** and **36**:

**TABLE 35 – Target Asset Allocation as of June 30, 2022**

Asset class	Target allocation	Long-term expected real rate of return
Global equity	38.00%	4.20%
Core fixed income	15.00%	0.50%
Private equity	15.00%	7.30%
Portfolio completion strategies	10.00%	2.70%
Real estate	10.00%	3.30%
Value added fixed income	8.00%	3.70%
Timber / natural resources	4.00%	3.90%
<b>Total</b>	<b>100.00%</b>	

**TABLE 36 – Target Asset Allocation as of June 30, 2021**

Asset class	Target allocation	Long-term expected real rate of return
Global equity	39.00%	4.80%
Core fixed income	15.00%	0.30%
Private equity	13.00%	7.80%
Portfolio completion strategies	11.00%	2.90%
Real estate	10.00%	3.70%
Value added fixed income	8.00%	3.90%
Timber / natural resources	4.00%	4.30%
<b>Total</b>	<b>100.00%</b>	

## Discount Rate

The discount rate used to measure the total pension liability was 7.00% for both June 30, 2022 and 2021. 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 net position was 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.

## Sensitivity Analysis

**Table 37** illustrates the impact of a 1% change in the discount rate for the net pension liability at June 30, 2023 and 2022 (\$ in thousands):

**TABLE 37 – Sensitivity Analysis of Discount**

As of June 30, 2023 and 2022 (\$ in thousands)

Fiscal year ended	1% Decrease	Current discount rate	1% Increase
June 30, 2023	\$ 613,514	\$ 444,824	\$ 302,088
June 30, 2022	422,938	276,313	155,799

## Defined Contribution Plan

Non-vested faculty and certain other employees of the University can opt out of MSERS and participate in a defined contribution plan, the Optional Retirement Plan (ORP), administered by the Commonwealth's Department of Higher Education. As of June 30, 2023 and 2022, there were 2,255 and 2,191 participants in the ORP, respectively. Employees contribute at the same rate as members in MSERS and the Commonwealth matches 5% of employee contributions. The Commonwealth contributed \$9.6 million and \$8.9 million in 2023 and 2022, respectively. University employees contributed \$23.1 million and \$21.3 million in 2023 and 2022, respectively.

The MSERS and ORP retirement contributions of employees who become members of MSERS or ORP after January 1, 2011 are subject to a state compensation limit. Effective January 1, 2011, the University established a defined contribution plan, the University of Massachusetts 401(a) Retirement Gap Plan (Gap Plan). Employees with MSERS or ORP membership dates after January 1, 2011 are eligible to participate in the Gap Plan. Eligible employees begin participation in the Gap Plan when their regular compensation exceeds the state compensation limit in effect for the plan year, at which point their contributions to MSERS or ORP are required to stop for the remainder of the plan year. Employee contributions to the Gap Plan are mandatory and at the same rate as MSERS and ORP; the University contributes 5%. As of June 30, 2023 and 2022, the plan assets of the Gap Plan were \$10.2 million and \$8.8 million, respectively.

In addition, UMG offers a defined contribution retirement plan. Employees working at least 20 hours a week are eligible to participate in the plan after 90 days of employment. UMG contributes 3% of each employee's eligible annual salary, as defined by the plan. Eligible employees may contribute up to 6% of their eligible salary and UMG matches their contributions. UMG's total contribution to the plan was \$3.1 million for FY 2023 and \$2.8 million for the period from September 1, 2021 to June 30, 2022.

Other component units may opt to offer defined contribution retirement plans. These are not material in relation to the University as a whole and detailed plan information are therefore not presented.

## 14. Other Postemployment Benefits

The Commonwealth administers the State Retirees' Benefit Trust, a single employer defined Postemployment Benefits Other Than Pensions (OPEB) Plan (the Plan). Benefits are managed by the Group Insurance Commission (GIC) and investments are managed by the Pension Reserves Investment Management Board (PRIM).

### Benefits Provided

Under Chapter 32A of the MGL the Commonwealth is required to provide certain health care and life insurance benefits for retired employees of the Commonwealth. 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 MGL. The Commonwealth recognizes its share of the costs on an actuarial basis. As of June 30, 2023 and 2022, the retirees' share of premium costs is between 10% – 20%, depending on the date of hire.

## OPEB Liabilities, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

The total OPEB liability as of June 30, 2023 was determined based on a measurement date of June 30, 2022 from an actuarial valuation as of January 1, 2022 rolled forward to June 30, 2022. The total OPEB liability as of June 30, 2022 was determined based on a measurement date of June 30, 2021 from an actuarial valuation as of January 1, 2021 rolled forward to June 30, 2021. There are no significant changes known which would impact the total OPEB liability between the measurement date and the reporting date, other than typical plan experience.

As of June 30, 2023 and 2022, the University reported a liability of \$559.8 million and \$485.1 million, respectively, for its proportionate share of the OPEB liability. The University's proportion of the OPEB liability was based on a projection of the University's long-term share of contributions to the OPEB plan relative to the total projected contributions of all participating entities, actuarially determined. The University's proportion of the OPEB plan at measurement dates of June 30, 2022 and 2021 was 4.19% and 3.03%, respectively.

For the fiscal years ended June 30, 2023 and 2022, the University recognized a net OPEB benefit of \$26.5 million and \$35.3 million, respectively.

The University reported its proportionate share of deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources as of June 30, 2023 and 2022, respectively, as shown in **Tables 38** and **39** (\$ in thousands):

**TABLE 38 – University's Proportionate Share of OPEB, FY2023**

As of June 30, 2023 (\$ in thousands)

OPEB resources	Deferred outflows of resources	Deferred inflows of resources
Changes of assumptions	\$ 41,232	\$ 202,606
Changes in proportion due to internal allocation	236,707	269,056
Employer contributions after measurement date	18,861	-
Differences between expected and actual experience	10,305	92,682
Investment earnings on OPEB plan investments	851	-
Changes in proportion from Commonwealth	257	2,765
<b>Total</b>	<b>\$ 308,213</b>	<b>\$ 567,109</b>

**TABLE 39 – University's Proportionate Share of OPEB, FY2022**

As of June 30, 2022 (\$ in thousands)

OPEB resources	Deferred outflows of resources	Deferred inflows of resources
Changes of assumptions	\$ 40,744	\$ 95,435
Changes in proportion due to internal allocation	82,095	353,890
Employer contributions after measurement date	21,091	-
Differences between expected and actual experience	12,384	85,400
Investment earnings on OPEB plan investments	-	5,896
Changes in proportion from Commonwealth	544	2,107
<b>Total</b>	<b>\$ 156,858</b>	<b>\$ 542,728</b>

Amounts reported as deferred outflows of resources relating to OPEB resulting from the University’s contributions subsequent to the measurement date will be recognized as a reduction to OPEB expense (benefit) in the next fiscal year. The remaining difference between the University’s balances of deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense (benefit), as shown in **Table 40**:

**TABLE 40 – Amortization of OPEB Expense in Future Years**

(\$ in thousands)

Year ended June 30	Pension
2024	\$ (66,375)
2025	(65,523)
2026	(62,293)
2027	(58,520)
2028	(25,046)
<b>Total</b>	<b>\$ (277,757)</b>

## Actuarial Assumptions

Significant actuarial assumptions used at the 2022 measurement date are as follows:

### Long-term rate of return on investment: 7.00%

### Annual healthcare cost trend rates:

Developed based on the most recent published SAO-Getzen trend rate model, version 2022\_f4.

**Short-term:** Based on review of the plan’s historical trend rates during fiscal years 2021 and 2022, along with industry surveys, separately for non-Medicare and Medicare benefits. The industry surveys were used to predict short-term future per capita cost increases.

**Long-term:** Based on the most recent published SAO-Getzen model for trend rates beginning in 2023 and thereafter, based on the plan’s long-term inflation assumption and reasonable macro-economic assumptions for the growth of health care expenditures during this period relative to the general economy. See **Table 41** for annual healthcare cost trend rates.

**TABLE 41 – Annual Healthcare Cost Trend Rates**

Year	Medicare benefits	Non-Medicare benefits
2022	5.00%	7.60%
2023	6.80%	9.11%
2024	6.79%	8.82%
2025	4.99%	6.72%
2026	4.99%	6.43%
2031	4.97%	4.97%
2041	4.78%	4.78%
2051	4.62%	4.62%
2061	4.53%	4.53%
2071	4.15%	4.15%
2075+	3.94%	3.94%

### Getzen long run growth factors:

- Inflation: 2.50%
- Real GDP Growth: 1.40%
- Excess Medical Growth: 1.00%

**Mortality rates:**

RP-2014 Blue Collar Employees projected with Scale MP-2020 from the central year, with females set forward one year

**Participation rates:**

- 100% of employees currently electing healthcare coverage are assumed to elect coverage at retirement.
- 35% of employees currently opting out of active health coverage are assumed to elect to enroll in retiree coverages.
- 85% of current and future vested terminated participants will elect health care benefits at age 55 or if later, the participant's current age.
- Retirees who currently elect to waive their coverage are assumed to remain uncovered in the future.
- 100% of spouses are assumed to elect to continue coverage after retiree's death.
- Current non-Medicare eligible retirees and spouses (if covered) under age 65 who are in a POS/PPO plan are assumed to move to an Indemnity plan if they are Medicare eligible at 65. All others are assumed to remain in their currently elected product type (Indemnity/POS/PPO/HMO).
- Future retirees are assumed to enroll in the existing plan in the same proportion as the current retiree mix, as shown in **Table 42**. These proportions are established separately for non-Medicare and Medicare coverage for each product type.

**TABLE 42 – Future Enrollment Proportions**

Plan	Retirement age under 65	Retirement age over 65
Indemnity	28.0%	96.0%
POS/PPO	62.0%	0.0%
HMO	10.0%	4.0%

Significant actuarial assumptions used at the 2021 measurement date are as follows:

**Long-term rate of return on investment: 7.00%****Annual healthcare cost trend rates:**

Developed based on the most recent published SAO-Getzen trend rate model, version 2021\_b.

**Short-term:** Based on review of the plan's historical trend rates during fiscal years 2020 and 2021, along with industry surveys, separately for non-Medicare and Medicare benefits. The industry surveys were used to predict short-term future per capita cost increases.

**Long-term:** Based on the most recent published SAO-Getzen model for trend rates beginning in 2022 and thereafter, based on the plan's long-term inflation assumption and reasonable macro-economic assumptions for the growth of health care expenditures during this period relative to the general economy. See **Table 43** for annual healthcare cost trend rates.

**TABLE 43 – Annual Healthcare Cost Trend Rates**

Year	Medicare benefits	Non-Medicare benefits
2021	4.40%	7.30%
2022	4.49%	7.06%
2023	4.57%	6.83%
2024	4.66%	6.59%
2025	4.75%	6.36%
2030	5.18%	5.18%
2040	5.18%	5.18%
2050	5.18%	5.18%
2060	4.83%	4.83%
2070	4.38%	4.38%
2075+	4.04%	4.04%



**Getzen long run growth factors:**

- Inflation: 2.50%
- Real GDP Growth: 1.50%
- Excess Medical Growth: 1.10%

**Mortality rates:**

RP-2014 Blue Collar Employees projected with Scale MP-2020 from the central year, with females set forward one year

**Participation rates:**

- 100% of employees currently electing healthcare coverage are assumed to elect coverage at retirement.
- 35% of employees currently opting out of active health coverage are assumed to elect to enroll in retiree coverages.
- 85% of current and future vested terminated participants will elect health care benefits at age 55 or if later, the participant’s current age.
- Retirees who currently elect to waive their coverage are assumed to remain uncovered in the future.
- 100% of spouses are assumed to elect to continue coverage after retiree’s death.
- Current non-Medicare eligible retirees and spouses (if covered) under age 65 who are in a POS/PPO plan are assumed to move to an Indemnity plan if they are Medicare eligible at 65. All others are assumed to remain in their currently elected product type (Indemnity/POS/PPO/HMO).
- Future retirees are assumed to enroll in the existing plan in the same proportion as the current retiree mix, as shown in **Table 44**. These proportions are established separately for non-Medicare and Medicare coverage for each product type.

**TABLE 44 – Future Enrollment Proportions**

Plan	Retirement age under 65	Retirement age over 65
Indemnity	28.0%	96.0%
POS/PPO	60.0%	0.0%
HMO	12.0%	4.0%



## Investment Allocation

Investment assets of the Plan are with 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 are summarized in **Tables 45** and **46**:

**TABLE 45 – Target Asset Allocation as of June 30, 2022**

Asset class	Target allocation	Long-term expected real rate of return
Global equity	38.00%	4.20%
Core fixed income	15.00%	0.50%
Private equity	15.00%	7.30%
Portfolio completion strategies	10.00%	2.70%
Real estate	10.00%	3.30%
Value added fixed income	8.00%	3.70%
Timber / natural resources	4.00%	3.90%
<b>Total</b>	<b>100.00%</b>	

**TABLE 46 – Target Asset Allocation as of June 30, 2021**

Asset class	Target allocation	Long-term expected real rate of return
Global equity	39.00%	4.80%
Core fixed income	15.00%	0.30%
Private equity	13.00%	7.80%
Portfolio completion strategies	11.00%	2.90%
Real estate	10.00%	3.70%
Value added fixed income	8.00%	3.90%
Timber / natural resources	4.00%	4.30%
<b>Total</b>	<b>100.00%</b>	

## Discount Rate

The discount rates used to measure the total OPEB liability as of June 30, 2022 and 2023 were 4.30% and 2.77%, respectively. These rates were based on a blend of the Bond Buyer Index rates of 3.54% and 2.16%, respectively, as of the measurement dates June 30, 2022 and 2021 and the long term rate of return on Plan investments of 7.00%. 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 2041. Therefore, the long-term expected rate of return on plan investments was not applied to all periods of projected benefit payments to determine the total OPEB liability as of June 30, 2022 and 2021.

## Sensitivity Analysis of Discount

**Table 47** 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 (\$ in thousands):

**TABLE 47 – Sensitivity Analysis of Discount**

As of June 30, 2022 and 2021 (\$ in thousands)

Fiscal year ended	1% Decrease	Current discount rate	1% Increase
June 30, 2022	\$ 653,075	\$ 559,807	\$ 483,194
June 30, 2021	576,343	485,141	411,679

## Sensitivity Analysis of Healthcare Cost Trend Rate

**Table 48** 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 (\$ in thousands):

**TABLE 48 – Sensitivity Analysis of Healthcare Cost Trend Rate**

As of June 30, 2022 and 2021 (\$ in thousands)

Fiscal year ended	1% Decrease	Current discount rate	1% Increase
June 30, 2022	\$ 469,278	\$ 559,807	\$ 674,405
June 30, 2021	397,231	485,141	599,717





## 15. Operating Expenses and Interest

**Table 49** summarizes the University's operating and interest expenses by natural and functional classification for the year ended June 30, 2023 (\$ in thousands):

**TABLE 49 – Operating Expenses and Interest, FY2023**

For the year ended June 30, 2023 (\$ in thousands)

Expense / interest	Compensation and benefits	Supplies and services	Scholarships and fellowships	Depreciation and amortization	Interest	Total
<b>Educational and general</b>						
Instruction	\$ 862,872	\$ 133,931	\$ -	\$ -	\$ -	\$ 996,803
Research	346,938	239,354	-	-	-	586,292
Public service	62,464	25,117	-	-	-	87,581
Academic support	152,317	69,852	-	-	-	222,169
Student services	155,380	84,659	-	-	-	240,039
Institutional support	258,715	85,265	-	-	-	343,980
Operation and maintenance of plant	122,529	137,344	-	-	-	259,873
Depreciation and amortization	-	-	-	344,872	-	344,872
Scholarships and fellowships	-	-	62,237	-	-	62,237
<b>Auxiliary enterprises</b>	<b>161,242</b>	<b>191,385</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>352,627</b>
<b>Other expenditures</b>						
Independent operations	22,880	33,725	-	-	-	56,605
Public service activities	117,473	137,678	-	-	-	255,151
Total operating expenses	\$ 2,262,810	\$ 1,138,310	\$ 62,237	\$ 344,872	\$ -	\$ 3,808,229
Interest expense	-	-	-	-	129,132	129,132
<b>Total operating expenses and interest</b>	<b>\$ 2,262,810</b>	<b>\$ 1,138,310</b>	<b>\$ 62,237</b>	<b>\$ 344,872</b>	<b>\$ 129,132</b>	<b>\$ 3,937,361</b>



**Table 50** summarizes the University's operating expenses and interest by natural and functional classification for the year ended June 30, 2022 (\$ in thousands):

**TABLE 50 – Operating Expenses and Interest, FY2022**

For the year ended June 30, 2022 (\$ in thousands)

Expense / interest	Compensation and benefits	Supplies and services	Scholarships and fellowships	Depreciation and amortization	Interest	Total
<b>Educational and general</b>						
Instruction	\$ 814,334	\$ 116,028	\$ -	\$ -	\$ -	\$ 930,362
Research	320,970	230,397	-	-	-	551,367
Public service	53,090	18,559	-	-	-	71,649
Academic support	134,984	59,169	-	-	-	194,153
Student services	137,545	73,543	-	-	-	211,088
Institutional support	234,661	81,149	-	-	-	315,810
Operation and maintenance of plant	109,063	133,686	-	-	-	242,749
Depreciation and amortization	-	-	-	330,715	-	330,715
Scholarships and fellowships	-	-	121,334	-	-	121,334
<b>Auxiliary enterprises</b>	<b>141,473</b>	<b>179,062</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>320,535</b>
<b>Other expenditures</b>						
Independent operations	23,860	34,722	-	-	-	58,582
Public service activities	105,589	147,831	-	-	-	253,420
Total operating expenses	\$ 2,075,569	\$ 1,074,146	\$ 121,334	\$ 330,715	\$ -	\$ 3,601,764
Interest expense	-	-	-	-	117,244	117,244
<b>Total operating expenses and interest</b>	<b>\$ 2,075,569</b>	<b>\$ 1,074,146</b>	<b>\$ 121,334</b>	<b>\$ 330,715</b>	<b>\$ 117,244</b>	<b>\$ 3,719,008</b>

## 16. Unrestricted Net Position

According to the University's reserve policy, unrestricted net position is designated for certain purposes. Below are the designations used by the University, as described in the University's policy:

- **Unexpended plant and facilities:** funds designated for capital projects, equipment and the major renovations of all existing buildings including research, education and general, and auxiliary.
- **Auxiliary enterprises:** funds related to self-supporting activities which provide non-instructional support in the form of goods and services to students, faculty, and staff upon payment of a specific user charge or fee.
- **Education and general:** funds designated for operational requirements, academic initiatives, research, faculty recruitment, and University initiatives.
- **Quasi-endowment:** funds related to unrestricted resources invested in the Foundation's pooled endowment fund, intended to be invested for the long-term unless otherwise approved by the Board of Trustees or a designated authority.
- **Stabilization:** funds designated to provide budgetary stabilization for operations due to unforeseen and/or uncontrollable circumstances to ensure responsible long-term financial stability.
- **Other unrestricted:** funds undesignated for a specific use or purpose.



**Table 51** summarizes the University's unrestricted net position as of June 30, 2023 and 2022 (\$ in thousands):

**TABLE 51 – Unrestricted Net Position**

As of June 30, 2023 and 2022 (\$ in thousands)

Unrestricted resources	2023	2022
Unexpended plant and facilities	\$ 467,237	\$ 418,477
Auxiliary enterprises	123,013	89,237
Education and general	469,562	410,252
Quasi-endowment	412,813	379,143
Stabilization	157,467	152,667
Other unrestricted	25,432	30,023
<b>Subtotal</b>	<b>1,655,524</b>	<b>1,479,799</b>
Unfunded portion of pension liabilities	(417,602)	(427,492)
Unfunded portion of postretirement benefits other than pension liabilities	(818,703)	(871,010)
<b>Total unrestricted net position</b>	<b>\$ 419,219</b>	<b>\$ 181,297</b>

## 17. Commitments and Contingencies

In June 2019, the University entered into an agreement to lease property located at 200 Mount Vernon Street in Dorchester, Massachusetts to an unrelated party (the Developer). The Developer plans to develop a mixed-use opportunity at the site. Under the terms of the agreement, the Developer, subject to certain contingencies, may enter into a 99-year ground lease for an initial fixed rent upfront payment of up to \$235.0 million, with a minimum payment of \$192.5 million.

At June 30, 2023, the University held the \$11.5 million that is a fully nonrefundable deposit. Subsequent to the year end, an additional \$11.0 million was released to the University as a nonrefundable deposit. The University has the ability to terminate the agreement at any time subject to the terms of the agreement.

The University has outstanding purchase commitments with contractors for the construction of certain facilities as of June 30, 2023 and 2022 of \$193.1 million and \$181.5 million, respectively.

From time to time, the University is involved in routine litigation that arises in the ordinary course of business. There are no significant legal proceedings to which the University is a party for which management believes the ultimate outcome would have a material adverse effect on the University's financial position.

## 18. Blended Component Units

Condensed information for the University's blended component units, the Building Authority, WCCC and UMG as of June 30, 2023 (\$ in thousands), is presented in **Tables 52, 53** and **54**:

**TABLE 52 – Condensed Information from the Statements of Net Position, FY2023**

As of June 30, 2023 (\$ in thousands)

Condensed Information from the Statements of Net Position	Building Authority	Eliminations	WCCC	Eliminations	UMG	Eliminations
Capital assets, net	\$ 3,972,090	\$ (449,531)	\$ 362,905	\$ -	\$ 17,902	\$ -
Lease receivable	152,155	(2,706)	165,542	-	-	-
Other assets	606,522	227,945	149,240	-	36,086	-
Deferred outflows	100,624	374	7,304	-	-	-
Total assets and deferred outflows	4,831,391	(223,918)	684,991	-	53,988	-
Debt, including commercial paper	3,404,378	(158,431)	289,273	-	100,624	-
Lease liability	27,803	(23,767)	-	-	11,846	-
Other liabilities	133,744	(11,504)	14,989	-	23,714	-
Deferred inflows	59,660	(2,579)	157,281	-	-	-
Total liabilities and deferred inflows	3,625,585	(196,281)	461,543	-	136,184	-
<b>Total net position</b>	<b>\$ 1,205,806</b>	<b>\$ (27,637)</b>	<b>\$ 223,448</b>	<b>\$ -</b>	<b>\$ (82,196)</b>	<b>\$ -</b>

**TABLE 53 – Condensed Information from the Statements of Revenues, Expenses, and Changes in Net Position, FY2023**

For the year ended June 30, 2023 (\$ in thousands)

Condensed Information from the Statements of Revenues, Expenses, and Changes in Net Position	Building Authority	Eliminations	WCCC	Eliminations	UMG	Eliminations
Other revenues	\$ 318,204	\$ (279,269)	\$ 99,295	\$ (62,979)	\$ 105,457	\$ -
Total revenues	318,204	(279,269)	99,295	(62,979)	105,457	-
Operation and maintenance of capital assets	6,861	(21,279)	28,538	(27,995)	-	-
Depreciation	169,512	(26,409)	18,978	-	7,343	-
Interest expense	125,216	(132,012)	9,294	-	2,560	-
Other expenses	21,280	(96,969)	25,025	(32,139)	113,385	-
Total expenses	322,869	(276,669)	81,835	(60,134)	123,288	-
<b>Increase (decrease) in net position</b>	<b>\$ (4,665)</b>	<b>\$ (2,600)</b>	<b>\$ 17,460</b>	<b>\$ (2,845)</b>	<b>\$ (17,831)</b>	<b>\$ -</b>

**TABLE 54 – Condensed Information from the Statements of Cash Flows, FY2023**

For the year ended June 30, 2023 (\$ in thousands)

Condensed Information from the Statements of Cash Flows	Building Authority	Eliminations	WCCC	Eliminations	UMG	Eliminations
Net cash provided by (used in) operating activities	\$ 206,966	\$ (2,600)	\$ 27,688	\$ (2,845)	\$ (18,891)	\$ -
Net cash provided by (used in) investing activities	195,135	-	(5,585)	-	77	-
Net cash provided by noncapital financing activities	-	-	-	-	510	-
Net cash (used in) provided by capital and other financing activities	(384,226)	-	(16,739)	-	(7,459)	-
<b>Change in cash and cash equivalents</b>	<b>\$ 17,875</b>	<b>\$ (2,600)</b>	<b>\$ 5,364</b>	<b>\$ (2,845)</b>	<b>\$ (25,763)</b>	<b>\$ -</b>

Condensed information for the University's blended component units, the Building Authority and WCCC, is presented below as of June 30, 2022 is presented in **Tables 55, 56 and 57** (\$ in thousands):

**TABLE 55 – Condensed Information from the Statements of Net Position, FY2022**

As of June 30, 2022 (\$ in thousands)

Condensed Information from the Statements of Net Position	Building Authority	Eliminations	WCCC	Eliminations	UMG	Eliminations
Capital assets, net	\$ 3,886,205	\$ (457,933)	\$ 377,949	\$ -	\$ 50,197	\$ -
Lease receivable	161,183	(8,360)	174,211	-	-	-
Other assets	787,816	213,692	141,208	-	61,097	-
Deferred outflows	109,949	(284)	8,120	-	-	-
Total assets and deferred outflows	4,945,153	(252,885)	701,488	-	111,294	-
Debt, including commercial paper	3,525,668	(200,883)	311,871	-	140,787	-
Lease liability	30,796	(10,068)	-	-	5,671	-
Other liabilities	113,860	(13,708)	14,501	-	29,201	-
Deferred inflows	64,358	(3,189)	169,128	-	-	-
Total liabilities and deferred inflows	3,734,682	(227,848)	495,500	-	175,659	-
<b>Total net position</b>	<b>\$ 1,210,471</b>	<b>\$ (25,037)</b>	<b>\$ 205,988</b>	<b>\$ -</b>	<b>\$ (64,365)</b>	<b>\$ -</b>

**TABLE 56 – Condensed Information from the Statements of Revenues, Expenses, and Changes in Net Position, FY2022**

For the year ended June 30, 2022 (\$ in thousands)

Condensed Information from the Statements of Revenues, Expenses, and Changes in Net Position	Building Authority	Eliminations	WCCC	Eliminations	UMG	Eliminations
Other revenues	\$ 306,884	\$ (153,122)	\$ 97,388	\$ (52,816)	\$ 101,936	\$ -
Total revenues	306,884	(153,122)	97,388	(52,816)	101,936	-
Operation and maintenance of capital assets	5,743	(1,055)	26,632	(25,118)	-	-
Depreciation	164,139	(23,001)	17,771	-	4,292	-
Interest expense	114,102	(105,069)	9,717	-	2,702	-
Other expenses	9,557	(7,714)	20,455	(27,698)	111,480	(420)
Total expenses	293,541	(136,839)	74,575	(52,816)	118,474	(420)
<b>Increase (decrease) in net position</b>	<b>\$ 13,343</b>	<b>\$ (16,283)</b>	<b>\$ 22,813</b>	<b>\$ -</b>	<b>\$ (16,538)</b>	<b>\$ 420</b>

**TABLE 57 – Condensed Information from the Statements of Cash Flows, FY2022**

For the year ended June 30, 2022 (\$ in thousands)

Condensed Information from the Statements of Cash Flows	Building Authority	Eliminations	WCCC	Eliminations	UMG	Eliminations
Net cash provided by (used in) operating activities	\$ 186,174	\$ (16,283)	\$ 2,948	\$ -	\$ (26,682)	\$ 420
Net cash provided by (used in) investing activities	(195,862)	-	(33,474)	-	-	-
Net cash provided by noncapital financing activities	-	-	-	-	2,915	-
Net cash provided by (used in) capital and other financing activities	98,007	-	33,133	-	(2,957)	-
<b>Change in cash and cash equivalents</b>	<b>\$ 88,319</b>	<b>\$ (16,283)</b>	<b>\$ 2,607</b>	<b>\$ -</b>	<b>\$ (26,724)</b>	<b>\$ 420</b>

The UMass Amherst Foundation, UMass Medical School Foundation and the UMLARC are not material in relation to the other blended component units nor the University as a whole and is therefore not presented in the above condensed information.

## 19. Discretely Presented Component Units

As described in Note 1, UMF and UMDF are discretely presented component units. These Foundations are presented in the aggregate in the accompanying financial statements. Following is supplemental information on UMF's non-agency investments, which is not included in its entirety elsewhere in these financial statements.

This note excludes agency funds held with the Foundation that are not the University's in the amount of \$18.8 million and \$20.5 million as of June 30, 2023 and 2022. UMF's investment portfolio represents approximately 74.7% of the aggregate discretely presented component units. This note does not include investment information for UMDF assets not held by UMF given the immaterial nature of UMDF's balances and activities.

### Investments

UMF's disclosure regarding investments in debt and equity securities, owned by the University, is captured in Note 4. Additional disclosure related to UMF's non-agency investments is noted below.

### Custodial Credit Risk

UMF maintains depository, payroll, disbursement, receipt, and imprest accounts. In addition to bank account deposits, UMF held money market instruments which are classified as investments. Interest bearing and money market accounts carry Federal Deposit Insurance Corporation (FDIC) insurance up to \$250,000 per account. None of the accounts are collateralized above the FDIC insured amounts.

**Concentration of Credit Risk** — As of June 30, 2023 and 2022, there is no concentration of investments from one issuer equal or greater than 5% of the portfolio. Investments issued or guaranteed by the U.S. government, as well as investments in mutual funds and other pooled investments are excluded from consideration when evaluating concentration risk.



**Credit Risk** — UMF's investment policy allows each portfolio manager full discretion within the parameters of the investment guidelines specific to that manager. Nationally recognized statistical rating organizations, such as Standards & Poor's (S&P) assign credit ratings to security issues and issuers that indicate a measure of potential credit risk to investors.

**Table 58** below presents the debt investments at fair value by credit quality of UMF's non-agency investment portfolio as of June 30, 2023 (\$ in thousands):

**TABLE 58 – Debt Investments by Credit Quality, FY2023**

As of June 30, 2023 (\$ in thousands)

Debt securities	2023	S&P rating
U.S. Treasury securities	\$ 58,308	AAA
<b>Total debt securities</b>	<b>\$ 58,308</b>	

**Table 59** presents the debt investments at fair value by credit quality of UMF's non-agency investment portfolio as of June 30, 2022 (\$ in thousands):

**TABLE 59 – Debt Investments by Credit Quality, FY2022**

As of June 30, 2022 (\$ in thousands)

Debt securities	2023	S&P rating
U.S. Treasury securities	\$ 67,367	AAA
Bond funds, including exchange traded funds	2,046	Not Rated
<b>Total debt securities</b>	<b>\$ 69,413</b>	

**Interest Rate Risk** — UMF's Investment Policy and Guidelines Statement establishes targets for the preferred duration of the fixed income component of the investment portfolio by asset class by limiting investments through targeted allocations to different asset classes.

**Table 60** presents the fair value by investment maturity of the debt investments of UMF's non-agency investment portfolio as of June 30, 2023(\$ in thousands):

**TABLE 60 – Debt Investments by Maturity, FY2023**

As of June 30, 2023 (\$ in thousands)

Debt securities	Less than 1 year	1 to 5 years	6 to 10 years	More than 10 years	Total
U.S. Treasury securities	\$ 1,850	\$ 56,458	\$ -	\$ -	\$ 58,308
<b>Total debt securities</b>	<b>\$ 1,850</b>	<b>\$ 56,458</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 58,308</b>

**Table 61** presents the fair value by investment maturity of the debt investments of UMF's non-agency investment portfolio as of June 30, 2022 (\$ in thousands):

**TABLE 61 – Debt Investments by Maturity, FY2022**

As of June 30, 2022 (\$ in thousands)

Debt securities	Less than 1 year	1 to 5 years	6 to 10 years	More than 10 years	Total
U.S. Treasury securities	\$ -	\$ 41,264	\$ 21,381	\$ 4,722	\$ 67,367
Bond funds, including exchange traded funds	40	2,006	-	-	2,046
<b>Total debt securities</b>	<b>\$ 40</b>	<b>\$ 43,270</b>	<b>\$ 21,381</b>	<b>\$ 4,722</b>	<b>\$ 69,413</b>



**Fair Value Measurement** — UMF's fair value measurement disclosure is captured in Note 4. Additional disclosure related to UMF's non-agency investments is as noted below.

**Table 62** summarizes the fair value of UMF's non-agency investments by type as of June 30, 2023 (\$ in thousands):

**TABLE 62 – Fair Value Hierarchy of Non-Agency Investments, FY2023**

As of June 30, 2023 (\$ in thousands)

Non-agency investments	Investments measured at NAV	Investments classified in the fair value hierarchy Level 1	Investments classified in the fair value hierarchy Level 2	Investments classified in the fair value hierarchy Level 3	Total
<b>Money market funds</b>	\$ -	\$ 86,564	\$ -	\$ -	\$ 86,564
<b>Debt securities</b>					
U.S. Treasury securities	-	58,308	-	-	58,308
<b>Total debt securities</b>	-	58,308	-	-	58,308
<b>Equity securities</b>					
Domestic equities	-	112,817	-	-	112,817
International equities	-	39,158	-	-	39,158
<b>Total equity securities</b>	-	151,975	-	-	151,975
<b>Alternative investments</b>					
Multi-strategy hedge funds					
Equity	321,265	-	-	-	321,265
Long/short	159,451	-	-	-	159,451
Fixed income	42,688	-	-	-	42,688
Absolute return	39,494	-	-	-	39,494
Real assets	9,938	-	-	-	9,938
Private equity	76,906	-	-	-	76,906
Private debt	14,975	-	-	-	14,975
Private real estate	7,765	-	-	-	7,765
Annuity & Life Income Pooled Funds	3,754	-	-	-	3,754
<b>Total alternative investments</b>	<b>676,236</b>	-	-	-	<b>676,236</b>
<b>Total investments</b>	<b>\$ 676,236</b>	<b>\$ 296,847</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 973,083</b>

**Table 63** summarizes the fair value of UMF's non-agency investments by type as of June 30, 2022 (\$ in thousands):

**TABLE 63 – Fair Value Hierarchy of Non-Agency Investments, FY2022**

As of June 30, 2022 (\$ in thousands)

Non-agency investments	Investments measured at NAV	Investments classified in the fair value hierarchy Level 1	Investments classified in the fair value hierarchy Level 2	Investments classified in the fair value hierarchy Level 3	Total
<b>Money market funds</b>	\$ -	\$ 65,637	\$ -	\$ -	\$ 65,637
<b>Debt securities</b>					
U.S. Treasury securities	-	67,367	-	-	67,367
Bond funds, including exchange traded funds	-	2,046	-	-	2,046
<b>Total debt securities</b>	-	<b>69,413</b>	-	-	<b>69,413</b>
<b>Equity securities</b>					
Domestic equities	-	65,685	-	-	65,685
International equities	-	29,907	-	-	29,907
<b>Total equity securities</b>	-	<b>95,592</b>	-	-	<b>95,592</b>
<b>Alternative investments</b>					
Multi-strategy hedge funds					
Equity	228,635	-	-	-	228,635
Long/short	157,063	-	-	-	157,063
Fixed income	31,830	-	-	-	31,830
Absolute return	36,059	-	-	-	36,059
Real assets	8,807	-	-	-	8,807
Private equity	76,036	-	-	-	76,036
Private debt	14,686	-	-	-	14,686
Private real estate	8,388	-	-	-	8,388
Annuity & life income pooled funds	3,404	-	-	-	3,404
<b>Total alternative investments</b>	<b>564,908</b>	-	-	-	<b>564,908</b>
<b>Total investments</b>	\$ <b>564,908</b>	\$ <b>230,642</b>	\$ -	\$ -	\$ <b>795,550</b>



**Table 64** presents unfunded commitments, redemption frequency and notice period for non-agency investments that have been valued using NAV as a practical expedient as of June 30, 2023 (\$ in thousands):

**TABLE 64 – Alternative Non-Agency Investments, FY2023**

As of June 30, 2023 (\$ in thousands)

Alternative investments	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Common trust funds	\$ 3,754	\$ -	daily		No lock-up restrictions
Multi-strategy hedge funds					
Equity	321,265	-	daily to annual	1-90 days	Lock-up provisions range from none to 2 years.
Long/short	159,451	-	quarterly to annual	45-90 days	Lock-up provisions range from none to 2 years.
Fixed income	42,688	-	quarterly to semi-annual	**	No lock-up restrictions
Absolute return	39,494	-	quarterly to annual	45-65 days	No lock-up restrictions
Real assets	9,938	-	annual	90 days	No lock-up restrictions
Private equity and venture capital	76,906	32,666	closed end funds	*	Not redeemable
Private debt	14,975	9,601	closed end funds	*	Not redeemable
Private real estate	7,765	1,454	closed end funds	*	Not redeemable
<b>Total</b>	<b>\$676,236</b>	<b>\$ 43,721</b>			

\* UMF has made commitments to various private equity and venture debt partnerships. The University expects these funds to be called over the next 1-5 years. Liquidity is expected to be received in the next 1-9 years.

\*\* Includes fund(s) that restrict redemptions such that redemptions are at the sole discretion of the Fund. Redemption terms require 60 to 90 days notice.





**Table 65** presents unfunded commitments, redemption frequency and notice period for non-agency investments that have been valued using NAV as a practical expedient as of June 30, 2022 (\$ in thousands):

**TABLE 65 – Alternative Non-Agency Investments, FY2022**

As of June 30, 2022 (\$ in thousands)

Alternative investments	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Common trust funds	\$ 3,404	\$ -	Daily		No lock-up restrictions
Multi-strategy hedge funds					
Equity	228,635	-	Daily to quarterly	1-90 days	Lock-up provisions range from none to 2 years.
Long/short	157,063	-	Quarterly to annual	45-90 days	Lock-up provisions range from none to 2 years.
Fixed income	31,830	-	Quarterly to semi-annual	**	No lock-up restrictions
Absolute return	36,059	-	Quarterly to annual	45-65 days	No lock-up restrictions
Real assets	8,807	-	Annual	90 days	No lock-up restrictions
Private equity and venture capital	76,036	21,115	Closed end funds	*	Not redeemable
Private debt	14,686	9,839	Closed end funds	*	Not redeemable
Private real estate	8,388	1,476	Closed end funds	*	Not redeemable
<b>Total</b>	<b>\$564,908</b>	<b>\$ 32,430</b>			

\* UMF has made commitments to various private equity and venture debt partnerships. The University expects these funds to be called over the next 1-5 years. Liquidity is expected to be received in the next 1-9 years.

\*\* Includes fund(s) that restrict redemptions such that redemptions are at the sole discretion of the Fund. Redemption terms require 60 to 90 days notice.

## 20. Related Party Transactions

Members of the University's Board of Trustees and Officers may, from time to time, be associated, either directly or indirectly, with companies doing business with the University. The University requires an annual disclosure of significant financial interests in, family relationships, significant management function, or substantial business with entities doing business with the University by members of the University's Board of Trustees and Officers. When such relationships exist, measures are taken to assess potential conflicts of interest to protect the best interests of the University and ensure compliance with relevant conflict of interest laws and policy. The University's conflict of interest policy also requires, among other things, that no member of the Board of Trustees or Officer may participate in any decision in which they (or an immediate family member) has a material financial interest.

## 21. Subsequent Events

Subsequent to the year ended June 30, 2023, and through December 12, 2023, the University borrowed an additional \$15.0 million of tax-exempt commercial paper and rolled \$31.0 million of tax-exempt and \$6.25 million of taxable commercial paper with interest rates ranging from 3.95% to 5.67% with a maturity date of January 11, 2024, to fund construction projects at the Boston and Lowell campuses.

On July 26, 2023, the University entered a \$9.3 million letter of credit on behalf of UMass Global for the benefit of the U.S. Department of Education. This letter of credit is within the University's existing line of credit.

For purposes of determining the effects of subsequent events on these financial statements, management has evaluated events subsequent to June 30, 2023 and through December 12, 2023, the date the financial statements were issued.

# Required Supplementary Information (unaudited)

For the last ten years\* (\$ in thousands)

\*Until a full ten year trend is compiled, the University is presenting only information for the years for which information is available.

## Schedule of the University's Proportionate Share of the Net Pension Liability — Massachusetts State Employees' Retirement System

Based on the measurement date, June 30

Liability	2022	2021	2020	2019	2018	2017	2016	2015	2014
University's proportion of the net pension liability	3.20%	2.65%	3.76%	3.60%	3.09%	3.28%	3.12%	3.59%	3.49%
University's proportionate share of the net pension liability	\$ 444,824	\$ 276,313	\$ 644,879	\$ 526,739	\$ 409,319	\$ 420,234	\$ 429,871	\$ 408,418	\$ 237,134
University's covered-employee payroll	\$ 1,318,298	\$ 1,216,914	\$ 1,264,971	\$ 1,247,098	\$ 1,242,525	\$ 1,168,661	\$ 1,156,082	\$ 1,139,719	\$ 1,061,132
University's proportionate share of the net pension liability as a percentage of its covered-employee payroll	33.74%	22.71%	50.98%	42.24%	32.94%	35.96%	37.18%	35.83%	22.35%
Plan fiduciary net position as a percentage of total pension liability	71.05%	77.54%	62.48%	66.28%	67.91%	67.21%	63.48%	67.87%	76.32%

## Schedule of the University's Contributions — Massachusetts State Employees' Retirement System

For the fiscal year ended June 30

Contributions	2023	2022	2021	2020	2019	2018	2017	2016	2015
Contractually required contribution	\$ 37,980	\$ 45,010	\$ 31,495	\$ 40,617	\$ 35,843	\$ 28,292	\$ 25,618	\$ 22,386	\$ 22,386
Contributions in relation to the contractually required contribution	(37,980)	(45,010)	(31,495)	(40,617)	(35,843)	(28,292)	(25,618)	(22,386)	(22,386)
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
University's covered-employee payroll	\$ 1,397,536	\$ 1,318,298	\$ 1,216,914	\$ 1,264,971	\$ 1,247,098	\$ 1,242,525	\$ 1,168,661	\$ 1,156,082	\$ 1,139,719
Contributions as a percentage of covered-employee payroll	2.72%	3.41%	2.59%	3.21%	2.87%	2.28%	2.19%	1.94%	1.96%



## Schedule of the University's Proportionate Share of the Net Other Postemployment Benefits (OPEB) Liability — State Retirees' Benefit Trust

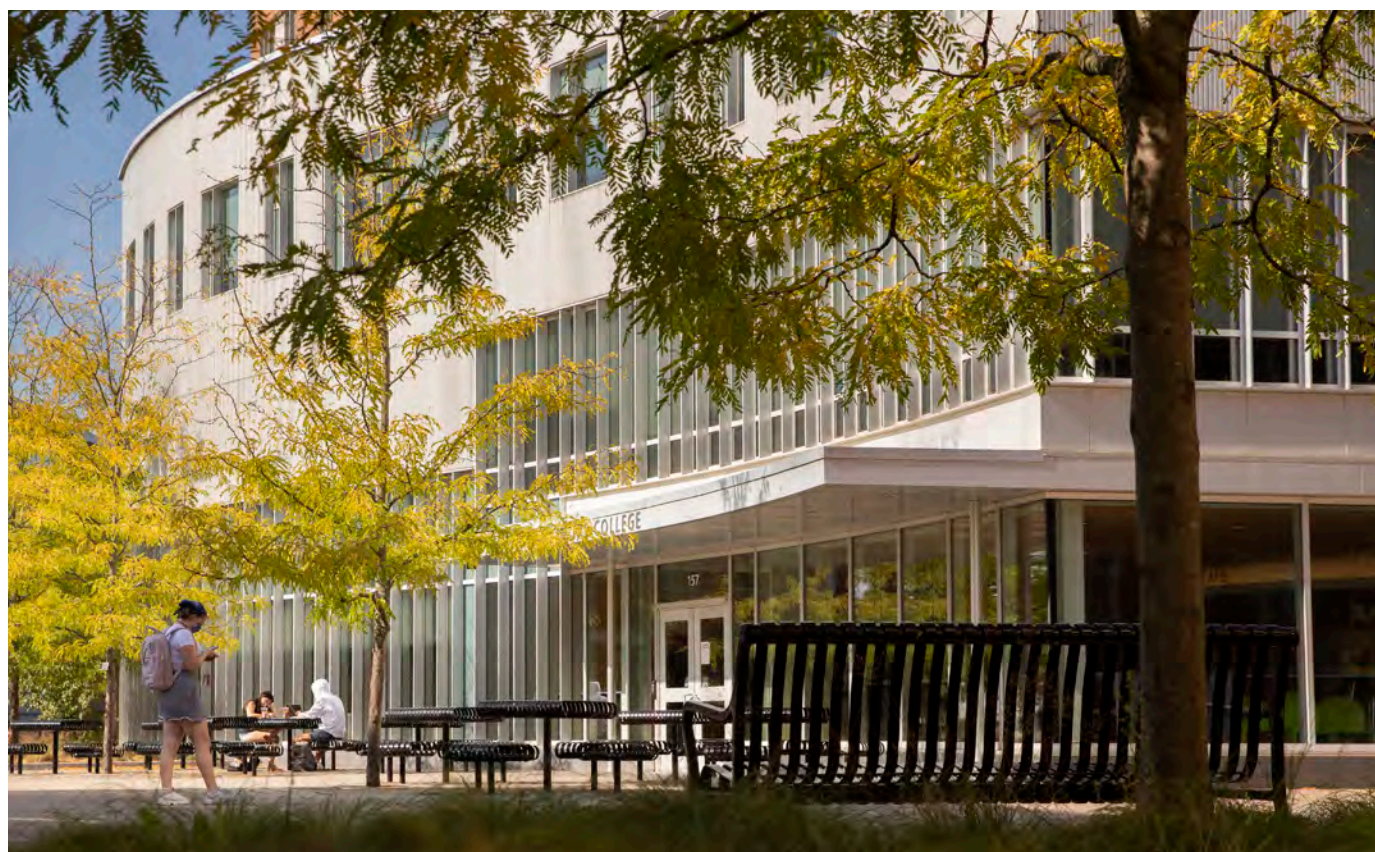
Based on the measurement date, June 30

Liabilities	2022	2021	2020	2019	2018 (restated)	2017
University's proportion of the net OPEB	4.19%	3.03%	4.01%	5.43%	4.82%	4.67%
University's proportionate share of the net OPEB	\$ 559,807	\$ 485,141	\$ 829,808	\$ 992,991	\$ 895,669	\$ 817,357
University's covered-employee payroll	\$ 1,318,298	\$ 1,216,914	\$ 1,264,971	\$ 1,247,098	\$ 1,242,525	\$ 1,168,661
University's proportionate share of the net OPEB as a percentage of its covered-employee payroll	42.46%	39.87%	65.60%	79.62%	72.08%	69.94%
Plan fiduciary net position as a percentage of total OPEB liability	13.00%	10.70%	6.40%	6.96%	6.01%	4.80%

## Schedule of the University's Contributions — State Retirees' Benefit Trust

For the fiscal year ended June 30

Contributions	2023	2022	2021	2020	2019	2018
Contractually required contribution	\$ 18,861	\$ 21,091	\$ 16,538	\$ 21,040	\$ 26,137	\$ 21,421
Contributions in relation to the contractually required contribution	(18,861)	(21,091)	(16,538)	(21,040)	(26,137)	(21,421)
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
University's covered-employee payroll	\$ 1,397,536	\$ 1,318,298	\$ 1,216,914	\$ 1,264,971	\$ 1,247,098	\$ 1,242,525
Contributions as a percentage of covered-employee payroll	1.35%	1.60%	1.36%	1.66%	2.10%	1.72%



**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Research and Development Cluster:					
Agency for International Development:					
National Academy of Sciences	98.001	NAS/USAID AID-0AA-A-11-00012	USAID Foreign Assistance for Programs Overseas	\$ 16,500	90,049
Inclusive Development Partners	98.012	AID-7200AA18CA00009	USAID Development Partnerships for University Cooperation and Development	—	42,239
FHI 360	98.012	Service Agreement dated 7.3.22	USAID Development Partnerships for University Cooperation and Development	—	28,395
Management Sciences for Health Inc	98.RD	72030620CA00006	United States Agency for International Development Contracts	—	8,531
Management Systems International (MIS)	98.RD	720-306-19-C-00004	United States Agency for International Development Contracts	—	30,709
Agency for International Development Total				<u>16,500</u>	<u>199,923</u>
Department of Agriculture:					
Agricultural Research Service	10.001	Direct	Agricultural Research-Basic and Applied Research	—	442,236
U.S. Department of Agriculture	10.001	Direct	Agricultural Research-Basic and Applied Research	—	(636)
Civilian Research & Development Foundation	10.001	DAA3-19-6574-1	Agricultural Research-Basic and Applied Research	—	84,589
CRDF Global	10.001	59-0210-6-004	Agricultural Research-Basic and Applied Research	—	80,606
CRDF Global	10.001	R-202109-68108	Agricultural Research-Basic and Applied Research	—	15,336
Agricultural Research-Basic and Applied Research Total				<u>—</u>	<u>622,131</u>
Animal and Plant Health Inspection Serv	10.025	Direct	Plant and Animal Disease, Pest Control, and Animal Care	—	512,346
Ma Division Of Fisheries And Wildlife	10.028	21WSNWRC00C016 16531	Wildlife Services	—	54,529
Natural Resources Conserv Services	10.072	Direct	Wetlands Reserve Program	—	6,174
U.S. Department Of Agriculture	10.147	Direct	Outreach Education And Technical Assistance	—	41,428
MA Dept of Agricultural Resources	10.170	015901-00002	Specialty Crop Block Grant Program - Farm Bill	—	44,643
MA Dept of Agricultural Resources	10.170	016765-00002	Specialty Crop Block Grant Program - Farm Bill	—	35,539
MA Dept of Agricultural Resources	10.170	119-1663 015338-00002	Specialty Crop Block Grant Program - Farm Bill	—	11,645
MA Dept of Agricultural Resources	10.170	016768-00002	Specialty Crop Block Grant Program - Farm Bill	—	18,679
Specialty Crop Block Grant Program – Farm Bill Total				<u>—</u>	<u>110,506</u>
University Of Maryland	10.200	20213438334848	Grants for Agricultural Research, Special Research Grants	—	2,707
University Of Maryland	10.200	2021-34383-34848	Grants for Agricultural Research, Special Research Grants	—	14,444
Natl Institute of Food and Agriculture	10.202	Direct	Cooperative Forestry Research	—	387,995
Natl Institute of Food and Agriculture	10.203	Direct	Payments to Agricultural Experiment Stations Under the Hatch Act	—	3,212,746
U.S. Department of Agriculture	10.203	Direct	Payments to Agricultural Experiment Stations Under the Hatch Act	—	1,437
Payments to Agricultural Experiment Stations Under the Hatch Act Total				<u>—</u>	<u>3,214,183</u>
Natl Institute of Food and Agriculture	10.207	Direct	Animal Health and Disease Research	—	10,050
Rensselaer Polytechnic Institute	10.215	20185864028415	Sustainable Agriculture Research and Education	—	(5,000)
University of Connecticut	10.215	2017-38640-26915	Sustainable Agriculture Research and Education	—	5,000
University of Vermont	10.215	20203864031520	Sustainable Agriculture Research and Education	—	67,442
University of Vermont	10.215	20182864028415	Sustainable Agriculture Research and Education	—	955
University of Vermont	10.215	20183864028415	Sustainable Agriculture Research and Education	—	9,441
University of Vermont	10.215	20203864031520	Sustainable Agriculture Research and Education	—	17,051
University of Vermont	10.215	2021-38640-34668	Sustainable Agriculture Research and Education	—	4,970
University of Vermont	10.215	20193864029877	Sustainable Agriculture Research and Education	—	6,267
University of Vermont	10.215	20203864031520	Sustainable Agriculture Research and Education	—	25,058
University of Vermont	10.215	20193864029877	Sustainable Agriculture Research and Education	—	18,710
University of Vermont	10.215	20203864031520	Sustainable Agriculture Research and Education	—	12,059
University of Vermont	10.215	20193864029877	Sustainable Agriculture Research and Education	32,039	94,677
University of Vermont	10.215	LNE18-365-32231	Sustainable Agriculture Research and Education	(1,000)	(1,111)
Sustainable Agriculture Research and Education Total				<u>31,039</u>	<u>255,519</u>
U.S. Department of Agriculture	10.250	Direct	Agricultural and Rural Economic Research, Cooperative Agreements and Collaborations	—	14,616
University of Georgia	10.303	SUB00003079	Integrated Programs	—	10,489

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
University of Maine	10.304	20223762138276	Homeland Security-Agricultural	\$ —	25,055
University of Florida	10.304	20163762025850	Homeland Security-Agricultural	—	(187)
University of Florida	10.304	20213762135791	Homeland Security-Agricultural	—	1,794
Homeland Security-Agricultural Total				—	26,662
Cornell University	10.309	20205118132197	Specialty Crop Research Initiative	—	20,266
Rutgers University	10.309	2018-51181-28383	Specialty Crop Research Initiative	—	(388)
Rutgers University	10.309	20225118138448	Specialty Crop Research Initiative	—	63,887
University of Minnesota	10.309	20215118135861	Specialty Crop Research Initiative	—	47,798
University of Wisconsin Madison	10.309	20225118138322	Specialty Crop Research Initiative	—	33,165
Specialty Crop Research Initiative Total				—	164,728
Natl Institute of Food and Agriculture	10.310	Direct	Agriculture and Food Research Initiative (AFRI)	354,263	3,929,564
U.S. Department of Agriculture	10.310	Direct	Agriculture and Food Research Initiative (AFRI)	—	172,795
Cape Code Cranberry Growers' Association	10.310	23070956	Agriculture and Food Research Initiative (AFRI)	—	6,146
Cornell University	10.310	20216701535235	Agriculture and Food Research Initiative (AFRI)	—	1,654
CT Agricultural Experiment Station	10.310	015702-00002 CAES-2020-23016-1	Agriculture and Food Research Initiative (AFRI)	—	73,506
CT Agricultural Experiment Station	10.310	CAES-2020-23000-1	Agriculture and Food Research Initiative (AFRI)	—	76,522
Harvard forest	10.310	20216800834102	Agriculture and Food Research Initiative (AFRI)	—	6,077
Iowa State University	10.310	020682B	Agriculture and Food Research Initiative (AFRI)	—	16,679
North Carolina State University	10.310	2019-0644-01	Agriculture and Food Research Initiative (AFRI)	—	73,678
Pennsylvania State University	10.310	20196702329346	Agriculture and Food Research Initiative (AFRI)	—	65,052
Pennsylvania State University	10.310	20216702333887	Agriculture and Food Research Initiative (AFRI)	—	88,422
Rochester Institute of Technology	10.310	20226702136346	Agriculture and Food Research Initiative (AFRI)	—	3,208
Tufts University	10.310	AG0032/PO# EP0210330	Agriculture and Food Research Initiative (AFRI)	—	97,081
University of Connecticut	10.310	20216701734027	Agriculture and Food Research Initiative (AFRI)	—	16,920
University of Rhode Island	10.310	0008733/07262021A	Agriculture and Food Research Initiative (AFRI)	—	67,889
University of Wisconsin Madison	10.310	20196702329637	Agriculture and Food Research Initiative (AFRI)	—	31,353
Washington State University	10.310	137230 SPC004277	Agriculture and Food Research Initiative (AFRI)	—	52,508
West Virginia University	10.310	20206701430901	Agriculture and Food Research Initiative (AFRI)	—	5,507
World Farmers	10.310	2018701728601	Agriculture and Food Research Initiative (AFRI)	—	2,605
Agriculture and Food Research Initiative (AFRI) Total				354,263	4,787,166
World Farmers	10.311	20214940035643	Beginning Farmer and Rancher Development Program	—	19,600
Natl Institute of Food and Agriculture	10.318	Direct	Women and Minorities in Science, Technology, Engineering, and Mathematics Fields	—	5,953
Natl Institute of Food and Agriculture	10.328	Direct	National Food Safety Training, Education, Extension, Outreach, and Technical Assistance Competitive Grants Program	38,730	203,384
University of Vermont	10.328	20207002032264	National Food Safety Training, Education, Extension, Outreach, and Technical Assistance Competitive Grants Program	—	9,062
National Food Safety Training, Education, Extension, Outreach, and Technical Assistance Competitive Grants Program Total				38,730	212,446
Natl Institute of Food and Agriculture	10.329	Direct	Crop Protection and Pest Management Competitive Grants Program	85,583	381,457
Cornell University	10.329	2018700062882	Crop Protection and Pest Management Competitive Grants Program	—	91,612
Crop Protection and Pest Management Competitive Grants Program Total				85,583	473,069
Nuestras Raices, Inc.	10.443	UM-2738	Outreach and Assistance for Socially Disadvantaged and Veteran Farmers and Ranchers	—	24,421
University of Delaware	10.500	20187002728588	Cooperative Extension Service	1,000	1,315
University of New Hampshire	10.500	20204640132797	Cooperative Extension Service	—	1,434
Cooperative Extension Service Total				1,000	2,749
Natl Institute of Food and Agriculture	10.515	Direct	Renewable Resources Extension Act and National Focus Fund Projects	—	2,515
U.S. Department Of Agriculture	10.519	Direct	Equipment Grants Program (EGP)	—	188,777
U.S. Forest Service	10.608	Direct	Food for Education	—	31,475
MA Dept of Conservation and Recreation	10.664	016713-00002 20DG11094200147	Cooperative forestry Assistance	—	5,000
MA Dept of Conservation and Recreation	10.664	4CTDCR3760CUMASSUNIV	Cooperative forestry Assistance	—	4,916

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Northern Research Station (Usfs)	10.676	Direct	Forest Legacy Program	\$ —	29,508
U.S. Forest Service	10.680	Direct	Forest Health Protection	—	55,466
U.S. Forest Service	10.699	Direct	Partnership Agreements	—	190,877
U.S. Forest Service	10.707	Direct	Research Joint Venture and Cost Reimbursable Agreements	—	828,729
Northern Research Station (Usfs)	10.719	Direct	Infrastructure Investment and Jobs Act Firewood Bank Program	—	1,400
Natural Resources Conserv Services	10.903	Direct	Soil Survey	—	95,025
Natural Resources Conserv Services	10.902	Direct	Soil and Water Conservation	—	60,948
Indiana University of Pennsylvania	10.902	NR203A750023C016	Soil and Water Conservation	—	27,259
Soil and Water Conservation Total				—	88,207
American Farmland Trust	10.912	NR213A750013G009	Environmental Quality Incentives Program	—	9,179
Agricultural Research Service	10.RD	59-8010-9-002	Department of Agriculture Contracts	—	(48)
Cape Cod Cranberry Growers' Assoc	10.RD	196043	Department of Agriculture Contracts	—	10,719
MA Dept of Agricultural Resources	10.RD	015902-00002	Department of Agriculture Contracts	—	—
U.S. Forest Service	10.RD	FS 18-JV-11242307-083 MOD 004	Department of Agriculture Contracts	—	113,976
University of Maryland	10.RD	IR4 11811	Department of Agriculture Contracts	—	(425)
University Of Maryland Eastern Shore	10.RD	IR-4/MARYLAND 22060787 PRIME NIFA	Department of Agriculture Contracts	—	7,500
Department of Agriculture Contracts Total				—	131,722
Department of Agriculture Total				510,615	12,636,707
Department of Commerce:					
NE Reg Assoc of Coastal Ocean Observ Sys	11.012	A009-005	Integrated Ocean Observing System (IOOS)	—	37,055
University of Delaware	11.012	UDR0000122	Integrated Ocean Observing System (IOOS)	—	56,755
Integrated Ocean Observing System (IOOS) Total				—	93,810
U.S. Department Of Commerce	11.028	Direct	Connecting Minority Communities Pilot Program	—	347,356
National Oceanic and Atmospheric Admin	11.417	Direct	Sea Grant Support	—	136,872
Massachusetts Institute of Technology	11.417	NA22OAR4170126	Sea Grant Support	—	27,120
Massachusetts Institute of Technology	11.417	S5967 / PO 878708	Sea Grant Support	—	8,574
Massachusetts Institute of Technology	11.417	s5646/720804	Sea Grant Support	—	81,131
University of Maine	11.417	UMS1232	Sea Grant Support	—	40,408
University of Maine	11.417	UMS1321	Sea Grant Support	—	2,198
University of Mississippi	11.417	22-06-71	Sea Grant Support	—	8,186
University of New Hampshire	11.417	PZL0238	Sea Grant Support	—	5,308
University of Puerto Rico	11.417	NA180AR4170089	Sea Grant Support	—	23,682
Salem State University	11.417	3140-NOA1	Sea Grant Support	—	29,957
Woods Hole Oceanographic Institution	11.417	NA180AR4170104	Sea Grant Support	—	54,075
Woods Hole Oceanographic Institution	11.417	NA22OAR4170122	Sea Grant Support	—	1,870
Woods Hole Oceanographic Institution	11.417	A101588/22012205	Sea Grant Support	—	16,865
Sea Grant Support Total				—	436,246
Commonwealth Of Massachusetts	11.419	CT ENV200007026UMS23A	Coastal Zone Management Administration Awards	—	31,725
National Oceanic and Atmospheric Admin	11.427	Direct	Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program	—	23,869
Gulf of Maine Research Institute	11.427	10-SKMSE-17 SMAST	Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program	—	39,315
Sustainable Seas Technology	11.427	36456	Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program	—	20,095
Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program Total				—	83,279
National Oceanic and Atmospheric Admin	11.431	Direct	Climate and Atmospheric Research	—	241,423
Gulf of Maine Research Institute	11.431	10-COCAMS-17 UMassD	Climate and Atmospheric Research	—	10,184
Gulf of Maine Research Institute	11.431	10-COCAST-19 SMAST	Climate and Atmospheric Research	—	1,454
Climate and Atmospheric Research Total				—	253,061

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Gulf of Maine Research Institute	11.432	10-CODMSE-21-SMAST	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	\$ —	24,096
University of Maine	11.432	UMS-1453	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	—	23,378
Woods Hole Oceanographic Institution	11.432	A101442/37007427	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	—	72,695
Woods Hole Oceanographic Institution	11.432	A101442/37077401	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	—	17,242
Woods Hole Oceanographic Institution	11.432	A101442/37077402	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	—	1,067
Woods Hole Oceanographic Institution	11.432	A101442/37077404	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	—	74,169
Woods Hole Oceanographic Institution	11.432	A101442/37077405	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	—	145,806
Woods Hole Oceanographic Institution	11.432	A101442/37077406	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	—	8,927
Woods Hole Oceanographic Institution	11.432	A101442/37077407	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	—	3,255
Woods Hole Oceanographic Institution	11.432	A101442/37077408	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	30,889	39,416
Woods Hole Oceanographic Institution	11.432	A101442/37077409	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	—	66,585
Woods Hole Oceanographic Institution	11.432	A101442/37077410	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	—	8,330
Woods Hole Oceanographic Institution	11.432	A101442/37077411	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	—	107,097
National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes Total				<u>30,889</u>	<u>592,063</u>
New England Fishery Management Council	11.441	21-06	Regional Fishery Management Councils	—	35,226
Florida Atlantic University	11.454	UR-K243	Unallied Management Projects	—	5,305
National Oceanic and Atmospheric Admin	11.459	Direct	Weather and Air Quality Research	—	209,724
National Oceanic and Atmospheric Admin	11.472	Direct	Unallied Science Program	—	77,956
Atlantic States Marine Fisheries Commiss	11.472	NA18NMF4720321	Unallied Science Program	45,435	77,285
Florida Atlantic University	11.472	UR-K302	Unallied Science Program	—	5,304
MA Division of Marine Fisheries	11.472	DMF-20014	Unallied Science Program	—	26,651
Unallied Science Program Total				<u>45,435</u>	<u>187,196</u>
NE Reg Assoc of Coastal Ocean Observ Sys	11.478	A010-005	Center for Sponsored Coastal Ocean Research-Coastal Ocean Program	—	54,237
National Institute of Standards and Tech	11.609	Direct	Measurement and Engineering Research and Standards	—	314,409
Department of Commerce	11.619	Direct	Arrangements for Interdisciplinary Research Infrastructure	—	6,892
Advanced Functional Fabrics of America	11.619	22-B-0036	Arrangements for Interdisciplinary Research Infrastructure	—	125,021
University of Delaware	11.619	Agreement 2.7.22	Arrangements for Interdisciplinary Research Infrastructure	—	217,440
University of Delaware	11.619	70NANB21H086	Arrangements for Interdisciplinary Research Infrastructure	—	46,315
University of Delaware	11.619	NII MBL – P AA F O R P C4 .1-1 38	Arrangements for Interdisciplinary Research Infrastructure	—	172,495
University of Delaware	11.619	NIIMBL PAA ARP-09	Arrangements for Interdisciplinary Research Infrastructure	—	313,634
University of Delaware	11.619	PAA 12/12/2018	Arrangements for Interdisciplinary Research Infrastructure	—	(12,863)
University of Delaware	11.619	PAA effective 8/1/2018	Arrangements for Interdisciplinary Research Infrastructure	—	(15,558)
University of Delaware	11.619	PC2.2-160 PAA	Arrangements for Interdisciplinary Research Infrastructure	—	(9,435)
University of Delaware	11.619	PC4.1-138	Arrangements for Interdisciplinary Research Infrastructure	—	37,125
University of Delaware	11.619	UDR0000057	Arrangements for Interdisciplinary Research Infrastructure	—	127,219
Arrangements for Interdisciplinary Research Infrastructure Total				<u>—</u>	<u>1,008,285</u>
National Institute Of Standards And Tech	11.620	Direct	Science, Technology, Business and/or Education Outreach	—	14,634
Vuronyx Technologies, Llc	11.620	70NANB22H119	Science, Technology, Business and/or Education Outreach	—	39,066
Science, Technology, Business and/or Education Outreach Total				<u>—</u>	<u>53,700</u>
Association of US Delegates to the Gulf	11.999	GOMA NA21NOS9990124	Marine Debris Program	—	39,562
Global Science and Technology, Inc.	11.RD	ST-1330-17-CQ-0050	Department of Commerce and NOAA Contracts	—	27,182
Department of Commerce Total				<u>76,324</u>	<u>3,772,366</u>
Department of Defense:					
Defense Logistics Agency	12.002	Direct	Procurement Technical Assistance for Business Firms	—	418,063
Air force Research Laboratory	12.300	Direct	Basic and Applied Scientific Research	64,779	63,051
Office of Naval Research	12.300	Direct	Basic and Applied Scientific Research	1,840,583	7,417,316
Naval Surface Warfare Center	12.300	Direct	Basic and Applied Scientific Research	—	88,011
Arizona State University	12.300	16-971	Basic and Applied Scientific Research	—	1



**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Carnegie Mellon University	12.300	1140207-403544	Basic and Applied Scientific Research	\$ —	158,667
Carnegie Mellon University	12.300	1140217-442599	Basic and Applied Scientific Research	—	101,203
Carnegie Mellon University	12.300	1140225-468459	Basic and Applied Scientific Research	—	21,433
Colorado School of Mines	12.300	N000142112418	Basic and Applied Scientific Research	—	80,238
Georgia State University	12.300	SP00015737-01	Basic and Applied Scientific Research	—	41,144
Stony Brook University	12.300	1172044/2/93083	Basic and Applied Scientific Research	18,201	1,342,365
Stony Brook University	12.300	89481/2/1164365	Basic and Applied Scientific Research	60,000	1,111,449
Stony Brook University	12.300	96412/1179945/2	Basic and Applied Scientific Research	210	181,077
University of California Irvine	12.300	2021-1507	Basic and Applied Scientific Research	—	58,948
University of Miami	12.300	N000142112550	Basic and Applied Scientific Research	—	150,212
University of Washington	12.300	N000142212136	Basic and Applied Scientific Research	—	5,309
Basic and Applied Scientific Research Total				1,983,773	10,820,424
U.S. Army Cdc Soldier Center	12.340	Direct	Naval Medical Research and Development	—	4,159
University of California Berkeley	12.351	HDTRA12210005	Scientific Research – Combating Weapons of Mass Destruction	—	124,735
U.S. Army Medical Research	12.420	Direct	Military Medical Research and Development	—	573,593
U.S. Department of Defense	12.420	Direct	Military Medical Research and Development	844,198	5,545,457
U.S. Department of Defense	12.420	Direct/W81XWH-21-1-0029/PR200620	COVID-19 Military Medical Research and Development	—	707,396
Brown University	12.420	00001459	Military Medical Research and Development	—	66,696
Charles River Analytics	12.420	SC1915101	Military Medical Research and Development	—	13,526
Columbia University	12.420	2(GG017452-04)	Military Medical Research and Development	—	26,995
Harvard School of Public Health	12.420	W81XWH-17-0692	Military Medical Research and Development	—	(3,852)
Henry M. Jackson Foundation	12.420	857395 PO: 3170	Military Medical Research and Development	—	85,386
Stanford University	12.420	63008649-236407	Military Medical Research and Development	—	20,468
University of Pittsburgh	12.420	W81XWH2210062	Military Medical Research and Development	—	14,091
University of Pittsburgh	12.420	W81XWH-21-1-0352	Military Medical Research and Development	—	80,578
VA Connecticut Research Education Found	12.420	UMA2202EAS	Military Medical Research and Development	—	11,126
Military Medical Research and Development Total				844,198	7,141,460
U.S. Army Cdc Soldier Center	12.431	Direct	Basic Scientific Research	—	340,455
U.S. Army Research Institute	12.431	Direct	Basic Scientific Research	—	73,458
U.S. Army Research Lab	12.431	Direct	Basic Scientific Research	29,771	265,871
U.S. Army Research Office	12.431	Direct	Basic Scientific Research	216,660	1,140,881
U.S. Department of the Army	12.431	Direct	Basic Scientific Research	—	122,628
Duke University	12.431	313-0589	Basic Scientific Research	—	(552)
Duke University	12.431	W911NF1510358	Basic Scientific Research	—	114,053
Kri at Northeastern University, LLC	12.431	W911NF2020024	Basic Scientific Research	—	94,085
Northeastern University	12.431	W911NF2320014	Basic Scientific Research	—	196,675
University of Arizona	12.431	W911NF2110325	Basic Scientific Research	—	153,438
University of Denver	12.431	W911NF2320005	Basic Scientific Research	—	28,146
University of Liverpool	12.431	Collaboration Agreement dated 10/3/17	Basic Scientific Research	—	5
University of Maryland	12.431	W911NF1810146	Basic Scientific Research	—	19,552
University of Pittsburgh	12.431	W911NF2320022	Basic Scientific Research	—	187,329
University of Pittsburgh	12.431	W911NF2120208	Basic Scientific Research	—	369,281
University of Southern California	12.431	112635750	Basic Scientific Research	—	30,662
Worcester Polytechnic Institute	12.431	11077-GR	Basic Scientific Research	—	256,159
Basic Scientific Research Total				246,431	3,392,126
U.S. Department of Defense	12.617	Direct	Economic Adjustment Assistance for State Governments	—	576,174
Air force Office of Scientific Research	12.630	Direct	Basic, Applied, and Advanced Research in Science and Engineering	73,195	380,593
Army Research Lab	12.630	Direct	Basic, Applied, and Advanced Research in Science and Engineering	186,637	803,876
U.S. Army Cdc Soldier Center	12.630	Direct	Basic, Applied, and Advanced Research in Science and Engineering	362,143	4,998,221
Advanced Functional Fabrics of America	12.630	Exhibit 1-G PO 808	Basic, Applied, and Advanced Research in Science and Engineering	—	20,226
DSC-CS Contracting Services Division	12.630	231809 / DCS-S-22-001	Basic, Applied, and Advanced Research in Science and Engineering	—	118,760
Notch, Inc	12.630	AFFOAPC2P3NOTCH	Basic, Applied, and Advanced Research in Science and Engineering	—	40,071

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
University of Delaware	12.630	59129	Basic, Applied, and Advanced Research in Science and Engineering	\$ —	25,932
University of Illinois	12.630	W911NF1720196	Basic, Applied, and Advanced Research in Science and Engineering	—	124,939
University of Illinois	12.630	088831-16647	Basic, Applied, and Advanced Research in Science and Engineering	—	390,766
Basic, Applied, and Advanced Research in Science and Engineering Total				<u>621,975</u>	<u>6,903,384</u>
Air force Office of Scientific Research	12.800	Direct	Air Force Defense Research Sciences Program	223,025	2,201,353
Air force Research Laboratory	12.800	Direct	Air Force Defense Research Sciences Program	—	332,230
Boeing Aircraft Corporation	12.800	PC #1830245	Air Force Defense Research Sciences Program	—	100
Brown University	12.800	FA95502110354	Air Force Defense Research Sciences Program	—	312,986
Florida A and M University	12.800	C-5131	Air Force Defense Research Sciences Program	—	23,160
General Dynamics Mission Systems, Inc.	12.800	22-SC-0003	Air Force Defense Research Sciences Program	—	36,782
Johns Hopkins University	12.800	2005534117	Air Force Defense Research Sciences Program	—	50,644
Lockheed Martin	12.800	PO 4104566134	Air Force Defense Research Sciences Program	—	(37,663)
Nextflex	12.800	AGMT 11.08.2021	Air Force Defense Research Sciences Program	199,562	347,800
State University of N.Y. at Binghamton	12.800	87599	Air Force Defense Research Sciences Program	—	(10,990)
University of Arkansas System	12.800	UA2020-120	Air Force Defense Research Sciences Program	—	87,155
University of California Santa Barbara	12.800	KK2033	Air Force Defense Research Sciences Program	—	982
University of Southern California	12.800	FA95501910213	Air Force Defense Research Sciences Program	—	45,154
Air Force Defense Research Sciences Program Total				<u>422,587</u>	<u>3,389,693</u>
U.S. Department of the Interior	12.910	Direct	Research and Technology Development	—	71,015
Defense Adv Research Projects Agency	12.910	Direct	Research and Technology Development	—	1,258,182
Colorado School of Mines	12.910	D21AP1011400	Research and Technology Development	—	230,776
State University of N.Y. at Binghamton	12.910	93780	Research and Technology Development	—	180,778
University of Pennsylvania	12.910	FA87501820117	Research and Technology Development	—	(471)
University of Southern California	12.910	N660011924032	Research and Technology Development	—	195,294
Research and Technology Development Total				<u>—</u>	<u>1,935,574</u>
Air force Research Laboratory	12.RD	FA9453-18-C-0056	Department of Defense Contracts	—	12,886
American Lightweight Mats Manufact Inst	12.RD	N000142190010	Department of Defense Contracts	—	663,103
Antrust LLC.	12.RD	H9823021C0301	Department of Defense Contracts	—	47,588
Applied Nanofemto Technologies LLC.	12.RD	36594	Department of Defense Contracts	—	177,298
Applied Nanotech, Inc.	12.RD	ANI PO 93631	Department of Defense Contracts	—	98,516
Applied Research Associates, Inc.	12.RD	FA865020C1132	Department of Defense Contracts	—	110,917
Bae Systems	12.RD	HR001121C0133	Department of Defense Contracts	—	351,541
Beth Israel Deaconess Medical Center	12.RD	01062417	Department of Defense Contracts	—	36,214
Charles River Analytics	12.RD	HR001120C0031	Department of Defense Contracts	—	60,449
Defense Adv Research Projects Agency	12.RD	HR00112190041	Department of Defense Contracts	—	290,206
Defense Adv Research Projects Agency	12.RD	HR00112190049	Department of Defense Contracts	43,605	240,044
Defense Logistics Agency	12.RD	SP4701-19-C-0064	Department of Defense Contracts	—	3,228
Defense Logistics Agency	12.RD	SP4701-22-C-0078	Department of Defense Contracts	—	195,426
Dunlap And Associates, Inc.	12.RD	DTNH2217D00031	Department of Defense Contracts	—	7,065
Dynetics, Inc.	12.RD	HHM402-19-D-0023-0119	Department of Defense Contracts	—	15,935
Eaton Corp	12.RD	PO 0011-45515	Department of Defense Contracts	—	50,828
FTL Labs Corporation	12.RD	N6833521C0238	Department of Defense Contracts	—	(2,834)
Gearjump Technologies LLC.	12.RD	W81XWH1920028	Department of Defense Contracts	—	(1,532)
Government of Israel	12.RD	PO 4440863603	Department of Defense Contracts	—	8,443
Henry M. Jackson Foundation	12.RD	W81XWH20C0031	Department of Defense Contracts	—	98,401
Intellisense Systems, Inc.	12.RD	33299-UMASS	Department of Defense Contracts	—	92,816
Jacobs Technology Inc.	12.RD	N0017318D2002N0017321F2014	Department of Defense Contracts	—	51,766
Jacobs Technology Inc.	12.RD	N0017322F3004	Department of Defense Contracts	—	14,882
Karagozian and Case	12.RD	UML210737.000	Department of Defense Contracts	—	67,061
Kri at Northeastern University, LLC.	12.RD	W911QY1990011	Department of Defense Contracts	—	1,647,098
Lowell Digisonde International, LLC.	12.RD	LDI20220705-1	Department of Defense Contracts	—	10,996
Mercury Systems, Inc.	12.RD	91007502	Department of Defense Contracts	—	71,144
MIT Lincoln Laboratory	12.RD	7000552504	Department of Defense Contracts	—	78,057

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
MIT Lincoln Laboratory	12.RD	FA870215D0001	Department of Defense Contracts	\$ —	119,408
Nanocomp Technologies, Inc.	12.RD	N6893621C0019	Department of Defense Contracts	—	(61,970)
National Center for Manufacturing Science	12.RD	HQ00341520007	Department of Defense Contracts	—	190,937
Naval Air Warfare Center Aircraft Divisi	12.RD	N6893621P0392	Department of Defense Contracts	—	40,426
NP Photonics, Inc.	12.RD	35223	Department of Defense Contracts	—	130,857
Pendar Technologies Llc	12.RD	Agreement 09172019	Department of Defense Contracts	—	2,140
Physical Sciences Incorporated	12.RD	HR001121C0032	Department of Defense Contracts	—	130,701
Pison Technology, Inc.	12.RD	LSC2020-0000100	Department of Defense Contracts	—	(1,656)
Rowan University	12.RD	W911NF1920152	Department of Defense Contracts	—	237,861
Silicon Space Technology	12.RD	FA9453-09-C0029	Miscellaneous Department of Defense	—	789
Soar Technology, Inc.	12.RD	SC-20-031	Department of Defense Contracts	—	29,186
Spectral Sciences, Inc.	12.RD	3583-001-47	Department of Defense Contracts	—	28,408
Stevens Institute of Technology	12.RD	HQ003419D0003	Department of Defense Contracts	—	44,433
Stevens Institute of Technology	12.RD	W15QKN18D0040	Department of Defense Contracts	—	99,536
Strategic Environ Research and Dev Prog	12.RD	W912HQ20P0027	Department of Defense Contracts	—	2,512
Technical Data Analysis, Inc.	12.RD	N6833520C0244	Department of Defense Contracts	—	12,208
Tipd, LLC.	12.RD	35686	Department of Defense Contracts	—	111,333
Triton Systems, Inc.	12.RD	TSI-2580-19-108911	Department of Defense Contracts	—	(9,997)
Triton Systems, Inc.	12.RD	TSI-5104-22-20210641	Department of Defense Contracts	—	30,895
TURION SPACE	12.RD	FA945322CA054	Department of Defense Contracts	—	80,865
Two Six Technologies	12.RD	HR00112190125	Department of Defense Contracts	—	161,274
U.S. Department of Defense	12.RD	W912HQ20P0109	Department of Defense Contracts	—	453
U.S. Department of The Army	12.RD	W50NH921C0015	Department of Defense Contracts	—	6,009,232
U.S. Department of The Army	12.RD	W911W5-16-C-0006	Department of Defense Contracts	—	2
University of Illinois	12.RD	HR00112290063	Department of Defense Contracts	—	454,942
University of Southern California	12.RD	201919051600007	Department of Defense Contracts	—	359,163
University of Washington	12.RD	UWSC13444 BPO 62560	Department of Defense Contracts	—	117,254
Wichita State University	12.RD	22-00952	Department of Defense Contracts	—	81,865
Winchester Technologies, LLC.	12.RD	HR00112190064	COVID-19 Department of Defense Contracts	—	—
Woods Hole Oceanographic Institution	12.RD	W912HQ19C0040	Department of Defense Contracts	86,252	78,533
Yale University	12.RD	HR00112190136	Department of Defense Contracts	—	208,075
Department of Defense Contracts Total				<u>129,857</u>	<u>13,187,207</u>
Department of Defense Total				<u>4,248,821</u>	<u>47,892,999</u>
Department of Education:					
U.S. Department of Education	84.021	Direct	Overseas Program – Group Projects Abroad	—	28,125
U.S Department of Education	84.116	Direct	Fund for the Improvement of Postsecondary Education	—	261,685
Association on Higher ED and Disability	84.116	P116D150005	Fund for the Improvement of Postsecondary Education	—	286
Fund for the Improvement of Postsecondary Education Total				<u>—</u>	<u>261,971</u>
City Of Lowell, Public Schools	84.215	PO 20004161	Innovative Approaches to Literacy; Promise Neighborhoods; Full-Service Community Schools; and Congressionally Directed Spending for Elementary and Secondary Education Community Projects	—	(5)
U.S. Department of Education	84.299	Direct	Professional Development Grants	—	213,914
U.S. Department of Education	84.305	Direct	Education Research, Development and Dissemination	95,426	674,083
Pennsylvania State University	84.305	R305T210087	Education Research, Development and Dissemination	—	10,773
University of South Florida	84.305	1776-1058-00-A	Education Research, Development and Dissemination	—	316,443
University of Southern California	84.305	104806502	Education Research, Development and Dissemination	—	(9,567)
WestEd	84.305	R305A190256	Education Research, Development and Dissemination	—	242,005
Education Research, Development and Dissemination Total				<u>95,426</u>	<u>1,233,737</u>
U.S. Department of Education	84.324	Direct	Exploring How Transfer-of-Rights and Guardianship Discussions May Affect Transition Outcomes for Students with Intellectual Disabilities	22,170	352,572
U.S. Department of Education	84.324	Direct	Special Education – Research and Innovation to Improve Services and Results for Children with Disabilities	—	51,823

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
University of California Regents	84.324	S001031	Research in Special Education	\$ —	71,165
University of Connecticut	84.324	146642408	Research in Special Education	—	8,700
Research in Special Education Total				<u>22,170</u>	<u>484,260</u>
U.S. Department of Education	84.325	Direct	Special Education – Personnel Development to Improve Services and Results for Children with Disabilities	42,530	1,787,617
Arizona State University	84.325	ASUB00000969	Special Education – Personnel Development to Improve Services and Results for Children with Disabilities	—	138,982
Special Education – Personnel Development to Improve Services and Results for Children with Disabilities Total				<u>42,530</u>	<u>1,926,599</u>
U.S. Department of Education	84.335	Direct	Child Care Access Means Parents in School	—	63,503
U.S. Department of Education	84.407C	Direct	Transition Programs for Students with Intellectual Disabilities Into Higher Education	—	1,843,194
National Writing Project	84.411	U411A160004	Education Innovation and Research Grants – Expansion Grants	—	216
Rice University	84.RD	R305N210064	Department of Education Contracts	—	89,297
Department of Education Total				<u>160,126</u>	<u>6,144,811</u>
Department of Energy:					
U.S. Department of Energy	81.049	Direct	Office of Science Financial Assistance Program	495,279	6,729,903
Boston University	81.049	DESC0022194	Office of Science Financial Assistance Program	—	113,141
Luna Labs USA, LLC.	81.049	389601UMASS	Office of Science Financial Assistance Program	—	3,466
Luna Labs USA, LLC.	81.049	7056.01/UMASSA	Office of Science Financial Assistance Program	—	62,652
Luna Labs USA, LLC.	81.049	7059-DOE-1T-UML	Office of Science Financial Assistance Program	—	67,079
Marine Biological Laboratory	81.049	DE-SC0021093	Office of Science Financial Assistance Program	—	20,958
Massachusetts Institute of Technology	81.049	DE-SC0020181	Office of Science Financial Assistance Program	—	(1,144)
Michigan State University	81.049	RC114586 – UMD	Office of Science Financial Assistance Program	—	8,065
Stanford University	81.049	DE-SC0020205	Office of Science Financial Assistance Program	—	28,238
Texas Tech University	81.049	21E083-01	Office of Science Financial Assistance Program	—	2,393
University of Delaware	81.049	DE-SC0001004	Office of Science Financial Assistance Program	—	85,664
University of Delaware	81.049	DESC0021166	Office of Science Financial Assistance Program	—	357,196
University of Minnesota	81.049	DE-SC0015376-002	Office of Science Financial Assistance Program	—	87,525
University of Pennsylvania	81.049	578218	Office of Science Financial Assistance Program	—	46,293
University of Pennsylvania	81.049	DE-SC0022238	Office of Science Financial Assistance Program	—	152,446
University of Wisconsin	81.049	2747	Office of Science Financial Assistance Program	—	33,601
Office of Science Financial Assistance Program Total				<u>495,279</u>	<u>7,797,476</u>
U.S. Department of Energy	81.057	Direct	University Coal Research	—	41,160
U.S. Department of Energy	81.086	Direct	Conservation Research and Development	173,750	853,038
Inventwood LLC.	81.086	SRA_DOE_1.6.22	Conservation Research and Development	—	84,225
University of Central Florida	81.086	16226A14	Conservation Research and Development	—	106,141
Conservation Research and Development Total				<u>173,750</u>	<u>1,043,404</u>
U.S. Department of Energy	81.087	Direct	Renewable Energy Research and Development	45,864	994,638
Coonamessett Farm Foundation, Inc.	81.087	36869	Renewable Energy Research and Development	—	3,625
National Wind Technology Consortium, Inc.	81.087	180976-128	Renewable Energy Research and Development	—	17,389
Northeastern University	81.087	503044-78050	Renewable Energy Research and Development	—	45,500
NY State Energy Res and Dev Authority	81.087	DE-EE0008930	Renewable Energy Research and Development	—	42,687
The Remade Institute	81.087	20-01-MM-4130	Renewable Energy Research and Development	44,716	436,342
The Remade Institute	81.087	21-01-RR-5052	Renewable Energy Research and Development	49,664	120,259
The Remade Institute	81.087	SA-19-08	Renewable Energy Research and Development	—	(267)
University of South Carolina	81.087	20-4038	Renewable Energy Research and Development	—	77,968
University of Wisconsin Madison	81.087	DEEE0009285	Renewable Energy Research and Development	—	133,474
Renewable Energy Research and Development Total				<u>140,244</u>	<u>1,871,615</u>

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
U.S. Department of Energy	81.117	Direct	Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance	\$ —	284,516
Pace University	81.117	DE-EE0008277	Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance	—	191,993
Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance Total				—	476,509
U.S. Department of Energy	81.121	Direct	Nuclear Energy Research, Development and Demonstration	—	140,655
Northeastern University	81.135	503051-78052	Advanced Research Projects Agency – Energy	—	9,467
University of Michigan	81.135	DE-AR0001413	Advanced Research Projects Agency – Energy	—	105,942
Advanced Research Projects Agency – Energy Total				—	115,409
2W Itech LLC	81.RD	2Witech 4.15.22	Department of Energy Contracts	—	61,472
Bechtel Marine Propulsion Corp	81.RD	PO# 7013868	Department of Energy Contracts	—	4,371
Brookhaven National Laboratory	81.RD	357998	Department of Energy Contracts	—	32,398
Brookhaven National Laboratory	81.RD	PO# 349004	Department of Energy Contracts	—	20,273
Brookhaven National Laboratory	81.RD	390038	Department of Energy Contracts	—	633,931
Brookhaven National Laboratory	81.RD	402350	Department of Energy Contracts	—	25,375
Brookhaven National Laboratory	81.RD	414168	Department of Energy Contracts	—	33,713
Brookhaven National Laboratory	81.RD	Brookhaven National Lab: 436543	Department of Energy Contracts	—	390,912
Brookhaven National Laboratory	81.RD	417694	Department of Energy Contracts	—	43,676
Brookhaven National Laboratory	81.RD	419129	Department of Energy Contracts	—	30,109
EOM Offshore, LLC	81.RD	EOM-2022-195-01	Department of Energy Contracts	—	59,519
Honeywell Aerospace	81.RD	N000468328	Department of Energy Contracts	—	96,932
Lawrence Berkeley Natl Lab U-California	81.RD	7457694	Department of Energy Contracts	—	177,525
Lawrence Livermore Natl Lab U-California	81.RD	7427543	Department of Energy Contracts	—	3,895
Los Alamos National Security, Llc	81.RD	546764	Department of Energy Contracts	—	11,888
National Nuclear Security Administration	81.RD	256732	Department of Energy Contracts	—	98
National Renewable Energy Lab	81.RD	SUB-2020-10275	Department of Energy Contracts	—	14,542
National Renewable Energy Lab	81.RD	SUB-2022-10330	Department of Energy Contracts	—	23,899
Pacific Northwest National Laboratory	81.RD	457681	Department of Energy Contracts	—	31,950
Pacific Northwest National Laboratory	81.RD	605050	Department of Energy Contracts	—	64,387
Sandia National Labs	81.RD	PO# 2230645	Department of Energy Contracts	—	86,048
Sandia National Labs	81.RD	PO#2312723	Department of Energy Contracts	—	56,019
Department of Energy Contracts Total				—	1,902,932
Department of Energy Total				809,273	13,389,160
Department of Health and Human Services:					
Boston Children's Hospital	93.080	GENFD0002095156	Blood Disorder Program: Prevention, Surveillance, and Research	—	17,129
U.S. Center for Disease Control and Prevention	93.084	Direct	Prevention of Disease, Disability, and Death by Infectious Diseases	264,942	753,951
Massachusetts General Hospital	93.084	239664	Prevention of Disease, Disability, and Death by Infectious Diseases	—	25,548
Massachusetts General Hospital	93.084	242093	Prevention of Disease, Disability, and Death by Infectious Diseases	—	235,816
Prevention of Disease, Disability, and Death by Infectious Diseases Total				264,942	1,015,315
MA Dept of Agricultural Resources	93.103	016662-00002	Food and Drug Administration-Research	—	444
MA Dept of Agricultural Resources	93.103	17147-00002	Food and Drug Administration-Research	—	48,857
Massachusetts Institute of Technology	93.103	R01FD007480	Food and Drug Administration-Research	—	139,925
Massachusetts Institute of Technology	93.103	S5505	Food and Drug Administration-Research	—	162,891
Food and Drug Administration-Research Total				—	352,117
Health Resources Service Administration	93.107	Direct	Area Health Education Centers	551,923	799,416
Health Resources Service Administration	93.110	Direct	Maternal and Child Health Federal Consolidated Programs	235,276	831,340
Icahn School of Medicine at Mount Sinai	93.110	0253-6540-4609	Maternal and Child Health Federal Consolidated Programs	—	33,249
Maternal and Child Health Federal Consolidated Programs Total				235,276	864,589



**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
National Institutes of Health	93.113	Direct	Environmental Health	\$ 186,115	2,922,551
National Institute of Environmental Health Services	93.113	Direct	Environmental Health	—	247,966
University of Montana	93.113	PG22-61256-01	Environmental Health	—	207,029
Wayne State University	93.113	WSU2204	Environmental Health	—	12,435
Wayne State University	93.113	R01ES028298	Environmental Health	—	2,857
Wayne State University	93.113	R01ES030942	Environmental Health	—	55,473
Environmental Health Total				<u>186,115</u>	<u>3,448,311</u>
Assoc For Prevention Teaching and Research	93.116	21-33-TH01	Project Grants and Cooperative Agreements for Tuberculosis Control Programs	—	4,860
National Institutes of Health	93.121	Direct	Oral Diseases and Disorders Research	—	609,059
National Institute of Dental and Craniofacial Research	93.121	Direct	Oral Diseases and Disorders Research	174,813	847,626
Creavt Microtech, Inc.	93.121	CRE-UMA-01	Oral Diseases and Disorders Research	—	100
George Washington University	93.121	18-M45	Oral Diseases and Disorders Research	—	112,386
New York University	93.121	F1838-02	Oral Diseases and Disorders Research	—	27,097
Rand Corporation	93.121	SCON-00000369	Oral Diseases and Disorders Research	—	206,088
University of Colorado	93.121	1558985	Oral Diseases and Disorders Research	—	118,298
Oral Diseases and Disorders Research Total				<u>174,813</u>	<u>1,920,654</u>
Centers for Disease Control and Prevention	93.135	Direct	Centers for Research and Demonstration for Health Promotion and Disease Prevention	430,190	1,628,813
Centers for Disease Control and Prevention	93.135	Direct/6 U48DP006381-02-02	COVID-19 Centers for Research and Demonstration for Health Promotion and Disease Prevention	—	109,303
City University of New York	93.135	CM00009023	Centers for Research and Demonstration for Health Promotion and Disease Prevention	—	18,241
Centers for Research and Demonstration for Health Promotion and Disease Prevention Total				<u>430,190</u>	<u>1,756,157</u>
Centers for Disease Control and Prevention	93.136	Direct	Injury Prevention and Control Research and State and Community Based Programs	—	204,085
MA Department of Public Health	93.136	INTF6410H78500224094	Injury Prevention and Control Research and State and Community Based Programs	—	79,681
Injury Prevention and Control Research and State and Community Based Programs Total				<u>—</u>	<u>283,766</u>
Boston Public Health Commission	93.137	FY22023244	COVID-19 Community Programs to Improve Minority Health Grant Program	—	297,719
National Institutes of Health	93.142	Direct	NIEHS Hazardous Waste Worker Health and Safety Training	884,098	1,518,621
National Institutes of Health	93.142	Direct/2U45ES006172-30S1, 3U45ES006172-29S2, -31S1	COVID-19 NIEHS Hazardous Waste Worker Health and Safety Training	—	354,398
NIEHS Hazardous Waste Worker Health and Safety Training Total				<u>884,098</u>	<u>1,873,019</u>
National Institutes of Health	93.143	Direct	NIEHS Superfund Hazardous Substances-Basic Research and Education	7,000	294,882
Charles River Analytics	93.143	SC2113302	NIEHS Superfund Hazardous Substances-Basic Research and Education	—	18,435
NIEHS Superfund Hazardous Substances-Basic Research and Education Total				<u>7,000</u>	<u>313,317</u>
Health Resources Service Administration	93.145	Direct	HIV-Related Training and Technical Assistance	1,891,663	2,595,589
National Institutes of Health	93.172	Direct	Human Genome Research	784,857	2,701,298
Boston Children's Hospital	93.172	GENFD000209156	Human Genome Research	—	100,092
University of Illinois	93.172	0114840-18572	Human Genome Research	—	130,821
Human Genome Research Total				<u>784,857</u>	<u>2,932,211</u>
National Institutes of Health	93.173	Direct	Research Related to Deafness and Communication Disorders	79,427	1,633,190
Massachusetts Eye and Ear Infirmary	93.173	530819	Research Related to Deafness and Communication Disorders	—	126,109
University of Pittsburgh	93.173	AWD00005424 (137537-1)	Research Related to Deafness and Communication Disorders	—	20,689
University of Wisconsin Madison	93.173	0000001799	Research Related to Deafness and Communication Disorders	—	233,639
University of Wisconsin Madison	93.173	1R01DC019092-01A1	Research Related to Deafness and Communication Disorders	—	3,998
Research Related to Deafness and Communication Disorders Total				<u>79,427</u>	<u>2,017,625</u>

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Centers for Disease Control and Prevention	93.185	Direct	Immunization Research, Demonstration, Public Information and Education-Training and Clinical Skills Improvement Projects	\$ 64,970	598,136
Centers for Disease Control and Prevention	93.185	Direct/6U011P001122-05	COVID-19 Immunization Research, Demonstration, Public Information and Education-Training and Clinical Skills Improvement Projects	—	227,052
Immunization Research, Demonstration, Public Information and Education-Training and Clinical Skills Improvement Projects Total				<u>64,970</u>	<u>825,188</u>
National Institutes of Health	93.213	Direct	Research and Training in Complementary and Integrative Health	—	208,237
Case Western Reserve University	93.213	RESS15758	Research and Training in Complementary and Integrative Health	—	131,782
Miriam Hospital	93.213	7147232	Research and Training in Complementary and Integrative Health	—	95,845
Physical Sciences Incorporated	93.213	10-02897-8049-46	Research and Training in Complementary and Integrative Health	—	(1,929)
Rush University Medical Center	93.213	R01 AT009680-01A1	Research and Training in Complementary and Integrative Health	—	12,733
Yale University	93.213	4 UH3 AT 009758-03	Research and Training in Complementary and Integrative Health	—	14,825
Yale University	93.213	GR110377 (CON-80002483)	Research and Training in Complementary and Integrative Health	—	30,012
Research and Training in Complementary and Integrative Health Total				<u>—</u>	<u>491,505</u>
Agency for Healthcare Research and Quality	93.226	Direct	Research on Healthcare Costs, Quality and Outcomes	18,734	553,425
Boston Children's Hospital	93.226	GENFD0001969173	Research on Healthcare Costs, Quality and Outcomes	—	53,053
Brigham and Women's Hospital	93.226	127946	Research on Healthcare Costs, Quality and Outcomes	—	18,092
Harvard Medical School	93.226	153372.5112648.0002	Research on Healthcare Costs, Quality and Outcomes	—	11,268
Harvard Medical School	93.226	153161.5125097.0007	Research on Healthcare Costs, Quality and Outcomes	—	84,470
Harvard Medical School	93.226	153161.5125095.0006	Research on Healthcare Costs, Quality and Outcomes	—	24,277
Harvard Medical School	93.226	153372.5120748.0005	Research on Healthcare Costs, Quality and Outcomes	—	66,193
Massachusetts General Hospital	93.226	5R01HS025718-02	Research on Healthcare Costs, Quality and Outcomes	—	794
University of California Irvine	93.226	2022-1721	Research on Healthcare Costs, Quality and Outcomes	—	27,059
Yale University	93.226	CON-80003358 (GR114879)	Research on Healthcare Costs, Quality and Outcomes	—	277,497
Yale University	93.226	CON-80003358	Research on Healthcare Costs, Quality and Outcomes	—	52,502
Yale University	93.226	U18HS016978	Research on Healthcare Costs, Quality and Outcomes	—	(3,910)
Research on Healthcare Costs, Quality and Outcomes Total				<u>18,734</u>	<u>1,164,720</u>
National Institutes of Health	93.233	Direct	National Center on Sleep Disorders Research	139,465	259,273
National Institutes of Health	93.242	Direct	Mental Health Research Grants	2,046,386	12,673,184
Academic Webt Pages, Inc.	93.242	1460517401A1	Mental Health Research Grants	—	56,384
Adaptive Testing Technologies	93.242	R44MH118780	Mental Health Research Grants	—	402,949
Beth Israel Deaconess Medical Center	93.242	1060783	Mental Health Research Grants	—	26,210
Boston Medical Center	93.242	R01MH121599-01	Mental Health Research Grants	—	10,008
Boston Medical Center	93.242	4141-UMMS-05A1	Mental Health Research Grants	—	10,392
Boston Medical Center	93.242	05 UMASS 04764	Mental Health Research Grants	—	(38,406)
Boston University School of Public Hlth	93.242	1R01MG119193-01A1	Mental Health Research Grants	—	(844)
Brigham and Women's Hospital	93.242	124807	Mental Health Research Grants	—	53,381
Feinstein Institute for Medical Research	93.242	R01 MH 120313-01	Mental Health Research Grants	—	94,775
Icahn School of Medicine at Mount Sinai	93.242	R01MH106056	Mental Health Research Grants	—	89,620
Lawrence Berkeley Natl Lab U-California	93.242	7446241	Mental Health Research Grants	—	73,756
Mclean Hospital	93.242	401677	Mental Health Research Grants	—	20,815
Michigan State University	93.242	RC108066UMASS	Mental Health Research Grants	—	9,894
Microbrightfield, Inc.	93.242	MH126834-01	Mental Health Research Grants	—	5,527
Praxis, Inc.	93.242	SRA-Byatt	Mental Health Research Grants	—	96,658
Praxis, Inc.	93.242	1R41MH116534-01A1	Mental Health Research Grants	—	(105)
University of Connecticut	93.242	163101899	Mental Health Research Grants	—	7,861
University of Michigan	93.242	PO 3006335634/SUBK00014265	Mental Health Research Grants	—	47,022
University of Michigan	93.242	K00011457	Mental Health Research Grants	—	54,681
University of Michigan	93.242	SUBK00014976	Mental Health Research Grants	—	5,394
University of Michigan	93.242	SUBK00016336	Mental Health Research Grants	—	40,046
Mental Health Research Grants Total				<u>2,046,386</u>	<u>13,739,202</u>

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Substance Abuse and Mental Health Serv	93.243	Direct	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	\$ 167,210	997,467
Baystate Medical Center, Inc.	93.243	21219-1	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	—	53,093
Baystate Medical Center, Inc.	93.243	21220-1	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	—	12,236
Executive Office of The Trial Court	93.243	H79TI081925	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	—	1,592
Franklin County Sheriff's Office	93.243	21UMASSSAMCONFY21-23	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	—	120,050
Franklin County Sheriff's Office	93.243	H79TI084139	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	—	115,097
Substance Abuse and Mental Health Services-Projects of Regional and National Significance Total				<u>167,210</u>	<u>1,299,535</u>
Health Resources Service Administration	93.247	Direct	Advanced Nursing Education Workforce Grant Program	714,810	919,698
Centers for Disease Control and Prevention	93.262	Direct	Occupational Safety and Health Program	—	85,195
Natl Inst for Occupational Safety and Health	93.262	Direct	Occupational Safety and Health Program	104,702	785,157
Charles River Analytics	93.262	SC2121801	Occupational Safety and Health Program	—	36,560
The Center for Construction Resear and Train	93.262	3001-1209	Occupational Safety and Health Program	—	2,834
The Center for Construction Resear and Train	93.262	3001-1309	Occupational Safety and Health Program	—	192,272
The Mary Imogene Bassett Hospital	93.262	5U54QH007542 UML6	Occupational Safety and Health Program	—	42,068
University of Connecticut Health Center	93.262	UCHC7-152428898; P0568370	Occupational Safety and Health Program	—	875,382
Occupational Safety and Health Program Total				<u>104,702</u>	<u>2,019,468</u>
Beth Israel Deaconess Medical Center	93.266	01063384	Health Systems Strengthening and HIV/AIDS Prevention, Care and Treatment under the President's Emergency Plan for AIDS Relief	—	176,795
National Institutes of Health	93.273	Direct	Alcohol Research Programs	276,809	3,051,549
Brown University	93.273	2164	Alcohol Research Programs	—	12,437
Michigan State University	93.273	RC111989B	Alcohol Research Programs	—	120,245
Praxis, Inc.	93.273	SMELSON	Alcohol Research Programs	—	1,812
Praxis, Inc.	93.273	R42AA026751	Alcohol Research Programs	—	(674)
Rhode Island Hospital	93.273	7017137290	Alcohol Research Programs	—	4,201
University of Pittsburgh	93.273	UPITTNIH 5 R21 AA028800-02	Alcohol Research Programs	—	11,559
University of Wisconsin Madison	93.273	0000001875	Alcohol Research Programs	—	81,009
Alcohol Research Programs Total				<u>276,809</u>	<u>3,282,138</u>
National Institutes of Health	93.279	Direct	Drug Abuse and Addiction Research Programs	153,604	2,555,543
Albert Einstein College of Medicine	93.279	321012	Drug Abuse and Addiction Research Programs	—	31,357
Baystate Medical Center, Inc.	93.279	19142	Drug Abuse and Addiction Research Programs	—	145,933
Continueyou, LLC.	93.279	4 R44 DA046151-02	Drug Abuse and Addiction Research Programs	—	61,861
Continueyou, LLC.	93.279	1 R44 DA056162-01	Drug Abuse and Addiction Research Programs	—	79,424
Florida International University	93.279	000616	Drug Abuse and Addiction Research Programs	—	14,245
Florida International University	93.279	000218	Drug Abuse and Addiction Research Programs	—	(641)
Fred Hutchinson Cancer Research Center	93.279	0001134432	Drug Abuse and Addiction Research Programs	—	19,514
George Mason University	93.279	E2056602	Drug Abuse and Addiction Research Programs	77,568	186,849
Hennepin Healthcare Research Institute	93.279	15390-14	Drug Abuse and Addiction Research Programs	—	120,522
Ichan School of Medicine at Mount Sinani	93.279	0255-G571-4609	Drug Abuse and Addiction Research Programs	—	233,765
Kaiser Foundation Research Institute	93.279	RNG210715-MPCI	Drug Abuse and Addiction Research Programs	—	13,126
New York University	93.279	s20-01277	Drug Abuse and Addiction Research Programs	—	661
Oregon Social Learning Center, Inc.	93.279	R01DA041425	Drug Abuse and Addiction Research Programs	—	140,884
Oregon Social Learning Center, Inc.	93.279	1-R24-DA051950-01	Drug Abuse and Addiction Research Programs	—	25,117
Q2i, LLC.	93.279	4 R42 DA049448-03	Drug Abuse and Addiction Research Programs	—	224,097
Sam Houston State University	93.279	p21242B	Drug Abuse and Addiction Research Programs	9,200	235,290
Tufts Medical Center	93.279	5021813 SERV	Drug Abuse and Addiction Research Programs	—	66,514
Tufts University	93.279	NIH243	Drug Abuse and Addiction Research Programs	—	40,843
University of Connecticut Health Center	93.279	UCHC7-165115860	Drug Abuse and Addiction Research Programs	—	19,018
University of Pittsburgh	93.279	AWD00002428 (134666-2)	Drug Abuse and Addiction Research Programs	—	57,796
University of Pittsburgh	93.279	R21 DA052419-02	Drug Abuse and Addiction Research Programs	—	11,687
Virginia Polytechnic Inst and State Univ	93.279	432096-19340	Drug Abuse and Addiction Research Programs	—	6,317
Drug Abuse and Addiction Research Programs Total				<u>240,372</u>	<u>4,289,722</u>

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
National Institutes of Health	93.286	Direct	Discovery and Applied Research for Technological Innovations to Improve Human Health	\$ 2,612,109	7,128,843
National Institutes of Health	93.286	Direct/3 U54 HL143541-02S1	COVID-19 Discovery and Applied Research for Technological Innovations to Improve Human Health	23,751	10,799
National Institutes of Health	93.286	Direct/3 U54 HL143541-02S2	COVID-19 Discovery and Applied Research for Technological Innovations to Improve Human Health	3,058,489	9,747,644
University of Memphis	93.286	5-40926	Discovery and Applied Research for Technological Innovations to Improve Human Health	—	56,607
Worcester Polytechnic Institute	93.286	11309-GR	Discovery and Applied Research for Technological Innovations to Improve Human Health	—	65,382
Worcester Polytechnic Institute	93.286	18-211110-01	Discovery and Applied Research for Technological Innovations to Improve Human Health	—	2,821
Discovery and Applied Research for Technological Innovations to Improve Human Health Total				<u>5,694,349</u>	<u>17,012,096</u>
National Institutes of Health	93.307	Direct	Minority Health and Health Disparities Research	65,411	443,292
National Institutes of Health	93.307	Direct/R01 MD016883-02	COVID-19 Minority Health and Health Disparities Research	—	850,501
New York University School of Medicine	93.307	R01 MD013769-01	Minority Health and Health Disparities Research	—	42,276
North Carolina State University	93.307	2022-1232-01	Minority Health and Health Disparities Research	—	22,098
Rand Corporation	93.307	R01MD014722	Minority Health and Health Disparities Research	—	18,130
Tufts University	93.307	R01MD016584	Minority Health and Health Disparities Research	—	52,422
University of New Mexico	93.307	3RJK6	Minority Health and Health Disparities Research	—	27,217
University of North Carolina	93.307	5124319	Minority Health and Health Disparities Research	—	11,338
University of Virginia	93.307	AWD-000261.GR100611	Minority Health and Health Disparities Research	—	43,472
Minority Health and Health Disparities Research Total				<u>65,411</u>	<u>1,510,746</u>
National Institutes of Health	93.310	Direct	Trans-NIH Research Support	1,481,402	6,616,073
Harvard Medical School	93.310	150280.5116406.0603	Trans-NIH Research Support	—	220,753
Harvard Pilgrim Health Care, Inc.	93.310	PH000615E	Trans-NIH Research Support	—	49,307
Henry ford Health System	93.310	B11170UMMS	Trans-NIH Research Support	1,205,310	1,596,682
University of Missouri-Kansas City	93.310	000000000/00072663	COVID-19 Trans-NIH Research Support	—	14,042
University of Missouri-Kansas City	93.310	00119243/00079361	COVID-19 Trans-NIH Research Support	—	1,891
University of North Carolina	93.310	5125792	COVID-19 Trans-NIH Research Support	—	235,767
University of Southern California	93.310	109717882	Trans-NIH Research Support	—	15,211
Trans-NIH Research Support Total				<u>2,686,712</u>	<u>8,749,726</u>
University of Florida	93.326	SUB00003430	COVID-19 Strengthening Public Health through Surveillance, Epidemiologic Research, Disease Detection and Prevention	—	69,044
Wake Forest University	93.348	NIH 1 R01 CA268041-01A1	Technical Assistance to Increase Tobacco Cessation	—	86,607
National Institutes of Health	93.350	Direct	National Center for Advancing Translational Sciences	159,756	6,143,421
Boston Medical Center	93.350	1 U01 TR002070-03	National Center for Advancing Translational Sciences	—	62,768
Boston University	93.350	4500004630	National Center for Advancing Translational Sciences	—	92,464
Brigham and Women's Hospital	93.350	127539	National Center for Advancing Translational Sciences	—	5,113
Duke University	93.350	WBSE: A034559, SPS:266338	National Center for Advancing Translational Sciences	—	24,832
University of Colorado	93.350	FY22.1126.063	National Center for Advancing Translational Sciences	—	(18,621)
National Center for Advancing Translational Sciences Total				<u>159,756</u>	<u>6,309,977</u>
National Institutes of Health	93.351	Direct	Research Infrastructure Programs	217,178	2,689,300
National Institutes of Health	93.351	Direct/3 P40 OD028116-01S1	COVID-19 Research Infrastructure Programs	—	86,476
National Institutes of Health	93.351	Direct/3 R24 OD026440-03S1	COVID-19 Research Infrastructure Programs	67,309	71,364
Research Infrastructure Programs Total				<u>284,487</u>	<u>2,847,140</u>
Geisinger Medical Center	93.353	646018UOM02	21st Century Cures Act – Beau Biden Cancer Moonshot	—	1,629
Tufts Univ Cummings Sch of Vet Med	93.353	4U01CA224153	21st Century Cures Act – Beau Biden Cancer Moonshot	—	32,627
Wake forest University	93.353	P50CA244693	21st Century Cures Act – Beau Biden Cancer Moonshot	—	347,429
21st Century Cures Act – Beau Biden Cancer Moonshot Total				<u>—</u>	<u>381,685</u>
Health Resources Service Administration	93.359	Direct	Nurse Education, Practice Quality and Retention Grants	43,433	334,009
U.S. Dept of Health and Human Services	93.360	Direct	Biomedical Advanced Research and Development Authority (BARDA), Biodefense Medical Countermeasure Development	—	188,838
National Institutes of Health	93.361	Direct	Nursing Research	277,228	1,599,810
Brigham and Women's Hospital	93.361	NR017034-03	Nursing Research	—	12,275

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Dana Farber Cancer Institute	93.361	3R01NR016720-04S1	Nursing Research	\$ —	202,402
New York University	93.361	F1526-02	Nursing Research	—	(4,427)
Nursing Research Total				<u>277,228</u>	<u>1,810,060</u>
University of Washington	93.387	UWSC12645	National and State Tobacco Control Program	—	36,732
National Institutes of Health	93.393	Direct	Cancer Cause and Prevention Research	880,195	5,194,228
Massachusetts General Hospital	93.393	239377	Cancer Cause and Prevention Research	—	150,821
Cancer Cause and Prevention Research Total				<u>880,195</u>	<u>5,345,049</u>
National Institutes of Health	93.394	Direct	Cancer Detection and Diagnosis Research	273,834	709,964
National Institutes of Health	93.394	Direct/1 U01 CA261276-01	COVID-19 Cancer Detection and Diagnosis Research	—	649,040
GE Global Research	93.394	401124937	Cancer Detection and Diagnosis Research	—	9,508
Massachusetts General Hospital	93.394	241842	Cancer Detection and Diagnosis Research	—	35,208
Memorial Sloan-Kettering Cancer Center	93.394	BD526731	Cancer Detection and Diagnosis Research	—	(158)
Tufts University	93.394	104318-00001	Cancer Detection and Diagnosis Research	—	52,823
University of Arkansas System	93.394	51599	Cancer Detection and Diagnosis Research	—	10,254
Cancer Detection and Diagnosis Research Total				<u>273,834</u>	<u>1,466,639</u>
National Institutes of Health	93.395	Direct	Cancer Treatment Research	345,266	2,331,415
American College of Radiology	93.395	1821	Cancer Treatment Research	—	702,822
American College of Radiology	93.395	1822	Cancer Treatment Research	—	1,071,474
Children's Hospital of Philadelphia	93.395	AALL1131	Cancer Treatment Research	—	13,442
Massachusetts General Hospital	93.395	234120	Cancer Treatment Research	—	209,860
Northwestern University	93.395	CA219013	Cancer Treatment Research	—	1,579
Pennsylvania State University	93.395	S002223-DHHS	Cancer Treatment Research	—	80,914
Pennsylvania State University	93.395	U01CA265709	Cancer Treatment Research	—	48,106
Public Health Institute	93.395	AALL_1161	Cancer Treatment Research	—	27,933
Tufts University Cummings School of Veterinary Medicine	93.395	104548-00001	Cancer Treatment Research	—	202,585
University of Virginia	93.395	5 R01 CA234478-05	Cancer Treatment Research	—	183,604
Cancer Treatment Research Total				<u>345,266</u>	<u>4,873,534</u>
National Institutes of Health	93.396	Direct	Cancer Biology Research	583,957	4,779,731
Baylor College of Medicine	93.396	P700000063	Cancer Biology Research	—	10,349
Carnegie Mellon University	93.396	1090703-454413	Cancer Biology Research	—	53,526
Dana Farber Cancer Institute	93.396	1172203	Cancer Biology Research	—	(1,394)
Duke University	93.396	A032494	Cancer Biology Research	—	387,097
Texas A&M University	93.396	U01CA225566	Cancer Biology Research	—	135,533
University of Miami	93.396	OS00000128	Cancer Biology Research	—	16,573
Cancer Biology Research Total				<u>583,957</u>	<u>5,381,415</u>
National Institutes of Health	93.397	Direct	Cancer Centers Support Grants	—	1,766,169
Dana Farber Cancer Institute	93.397	1P50CA168504-08	Cancer Centers Support Grants	—	69,986
Dana Farber Cancer Institute	93.397	U54-MOU-Woods	Cancer Centers Support Grants	—	11,318
Indiana University	93.397	8674	Cancer Centers Support Grants	—	25,539
Cancer Centers Support Grants Total				<u>—</u>	<u>1,873,012</u>
National Institutes of Health	93.398	Direct	Cancer Research Manpower	—	1,250,457
Dana Farber Cancer Institute	93.398	R25CA214256	Cancer Research Manpower	—	19,089
Cancer Research Manpower Total				<u>—</u>	<u>1,269,546</u>
National Institutes of Health	93.421	Direct	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	—	7,644
American Academy of Pediatrics	93.421	101066	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	—	125,578
American College of Ob/Gyn	93.421	603847393	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	—	31,393
National Foundation for CDC and Prevention	93.421	41404	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	—	39,869
National Assoc of Chronic Disease Directors	93.421	5152	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	—	125,115



**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
National Assoc of Chronic Disease Directors	93.421	220102	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	\$ —	259,865
Ntl Network of Public Health Institutes	93.421	G2477 AG-1066	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	—	106,071
Ntl Network of Public Health Institutes	93.421	G2072 AG-0672	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	—	86,023
Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health Total				—	781,558
National Institutes of Health	93.424	Direct	NON-ACA/PPHF-Building Capacity of the Public Health System to Improve Population Health through National Nonprofit Organizations	63,668	493,338
Administration for Community Living	93.433	Direct	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	104,226	1,360,846
U.S. Dept of Health and Human Services	93.433	Direct	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	84,672	514,390
Boston University	93.433	4500003701	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	—	229,779
Brandeis University	93.433	404244	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	—	43,861
Elder Services of The Merrimack Valley	93.433	90ADPI0056-01-01	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	—	84,137
Langston University	93.433	LU 5-17045-1	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	—	172,907
Langston University	93.433	LU 5-17048-1	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	—	4,562
University of Illinois at Chicago	93.433	18180	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	—	20,817
University of Minnesota	93.433	74486 Subaward A007250503	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	—	64,443
ACL National Institute on Disability, Independent Living, and Rehabilitation Research Total				188,898	2,495,742
Elder Services of The Merrimack Valley	93.470	90ADPI0065	Alzheimer's Disease Program Initiative (ADPI)	—	43,255
Florida Development Disabilities Council	93.630	1022EM19H	Developmental Disabilities Basic Support and Advocacy Grants	—	(5)
Texas Council Developmental Disabilities	93.630	20213	Developmental Disabilities Basic Support and Advocacy Grants	97,425	112,148
Texas Council Developmental Disabilities	93.630	20139	Developmental Disabilities Basic Support and Advocacy Grants	—	159,765
Developmental Disabilities Basic Support and Advocacy Grants Total				97,425	271,908
Administration for Community Living	93.632	Direct	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	—	593,538
U.S. Dept of Health and Human Services	93.632	Direct	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	—	36,081
Boston University	93.632	BU/NIDILRR 90DD0096	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	—	18,171
University Centers for Excellence in Developmental Disabilities Education, Research, and Service Total				—	647,790
Elder Services of The Merrimack Valley	93.761	HHS-2019-ACL-AOA-FPS6-0312	Evidence-Based Falls Prevention Programs Financed Solely by Prevention and Public Health Funds (PPHF)	—	3,243
Massachusetts General Hospital	93.817	241937	Hospital Preparedness Program (HPP) Ebola Preparedness and Response Activities	—	26,852
Massachusetts General Hospital	93.817	6 HITEP180042-01-04	Hospital Preparedness Program (HPP) Ebola Preparedness and Response Activities	—	11,107
Hospital Preparedness Program (HPP) Ebola Preparedness and Response Activities Total				—	37,959
National Institutes of Health	93.837	Direct	Cardiovascular Diseases Research	1,077,079	7,594,700
Augusta University	93.837	36183-2	Cardiovascular Diseases Research	—	84,897
Baystate Medical Center, Inc.	93.837	21-114-2	Cardiovascular Diseases Research	—	96,600
Baystate Medical Center, Inc.	93.837	21218-3	Cardiovascular Diseases Research	—	194,481
Beth Israel Deaconess Medical Center	93.837	01064129	Cardiovascular Diseases Research	—	187,333
Boston Children's Hospital	93.837	GENFD0002209989	Cardiovascular Diseases Research	—	163,579
Boston University	93.837	4500003030	Cardiovascular Diseases Research	—	188,296
Boston University	93.837	4500002295	Cardiovascular Diseases Research	—	451
Boston University	93.837	4500002987	Cardiovascular Diseases Research	—	49,827
Brigham and Women's Hospital	93.837	127050	Cardiovascular Diseases Research	—	38,727
Harvard Medical School	93.837	150247-5113691-0008	Cardiovascular Diseases Research	—	178,738
Illinois Institute of Technology	93.837	A21-0003-S001	Cardiovascular Diseases Research	—	465,563
Inspired Therapeutics, LLC	93.837	RSA 1.17.23	Cardiovascular Diseases Research	—	76,668
Miriam Hospital	93.837	710-7147188	Cardiovascular Diseases Research	—	10,493
New England Research Institute, Inc.	93.837	CT1500024	Cardiovascular Diseases Research	—	39,588
Ohio State University	93.837	GRT126738	Cardiovascular Diseases Research	—	23,787
Pennsylvania State University	93.837	UMASSHL163585	Cardiovascular Diseases Research	—	12,933
Recovery Force, LLC	93.837	CT Agreement UMass 20010073	Cardiovascular Diseases Research	—	131,540
Rhode Island Hospital	93.837	7137840	Cardiovascular Diseases Research	—	266

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Rush University Medical Center	93.837	18052902-Sub02	Cardiovascular Diseases Research	\$ —	(8,346)
Seattle Children's Hospital	93.837	12825SUB	Cardiovascular Diseases Research	—	12,763
Smith College	93.837	636076-01	Cardiovascular Diseases Research	—	7,071
University of Arizona	93.837	639661	Cardiovascular Diseases Research	—	183,802
University of California San Diego	93.837	705672	Cardiovascular Diseases Research	—	1,129
University of Texas at Arlington	93.837	020GC0400	Cardiovascular Diseases Research	—	20,460
University of Texas at San Antonio	93.837	172395/172293	Cardiovascular Diseases Research	—	544,824
University of Vermont	93.837	AWD00000483SUB00000227	Cardiovascular Diseases Research	—	35,045
University of Wisconsin	93.837	830K513	Cardiovascular Diseases Research	—	318,627
Yale University	93.837	GR100590	Cardiovascular Diseases Research	—	85,313
Cardiovascular Diseases Research Total				<u>1,077,079</u>	<u>10,739,155</u>
National Institutes of Health	93.838	Direct	Lung Diseases Research	940,154	6,620,729
Boston Medical Center	93.838	02_IMMMS_06033	COVID-19 Lung Diseases Research	—	127,300
Columbia University Medical Center	93.838	1(GG015000-01)	Lung Diseases Research	—	17,323
New York University School of Medicine	93.838	OT2HL156812	COVID-19 Lung Diseases Research	—	28,129
Lung Diseases Research Total				<u>940,154</u>	<u>6,793,481</u>
National Institutes of Health	93.839	Direct	Blood Diseases and Resources Research	144,465	736,268
Boston Children's Hospital	93.839	GENFD0001790235	Blood Diseases and Resources Research	—	255,688
Boston Children's Hospital	93.839	GENFD0001918940	Blood Diseases and Resources Research	—	37,923
Boston Children's Hospital	93.839	GENFD0001982611	Blood Diseases and Resources Research	—	249,394
Boston Medical Center	93.839	04-UMASS-04309	Blood Diseases and Resources Research	—	164,791
Emory University	93.839	5R01HL082808-17	Blood Diseases and Resources Research	—	108,533
Hackensack Meridian Health	93.839	G10159-2222	Blood Diseases and Resources Research	—	4,535
Massachusetts General Hospital	93.839	R01HL163273	Blood Diseases and Resources Research	—	93,624
Oregon Health and Science University	93.839	5R01HL146549-02	Blood Diseases and Resources Research	—	58,833
University of Kansas Medical Center Research Institute	93.839	AWD-0002525	Blood Diseases and Resources Research	—	187,992
University of Illinois	93.839	092352-18088	Blood Diseases and Resources Research	—	(10,583)
University of Pennsylvania	93.839	579833	Blood Diseases and Resources Research	—	75,074
Blood Diseases and Resources Research Total				<u>144,465</u>	<u>1,962,072</u>
National Institutes of Health	93.840	Direct	Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	618,684	1,155,781
Baystate Medical Center, Inc.	93.840	21-114-2	Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	—	31,793
Harvard School of Public Health	93.840	111267-5108404	Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	—	86,896
Health Strategy and Policy Institute	93.840	5 U01 HL138631	Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	—	68,878
Northwestern University	93.840	R01HL146884	Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	—	46,826
Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders Total				<u>618,684</u>	<u>1,390,174</u>
National Institutes of Health	93.846	Direct	Arthritis, Musculoskeletal and Skin Diseases Research	316,779	3,377,847
Boston University	93.846	4500003240	Arthritis, Musculoskeletal and Skin Diseases Research	—	24,683
Nationwide Children's Hospital	93.846	700261-0722-00	Arthritis, Musculoskeletal and Skin Diseases Research	—	43,679
Northwestern University	93.846	60058648 UMMS	Arthritis, Musculoskeletal and Skin Diseases Research	—	(1,959)
Purdue University	93.846	4102-85217	Arthritis, Musculoskeletal and Skin Diseases Research	—	83,512
Tufts Medical Center	93.846	5020891_SERV	Arthritis, Musculoskeletal and Skin Diseases Research	—	35,304
University of Colorado	93.846	FY21_1012_003	Arthritis, Musculoskeletal and Skin Diseases Research	—	45,060
University of Nevada	93.846	UNR-22-106	Arthritis, Musculoskeletal and Skin Diseases Research	—	50,298
Arthritis, Musculoskeletal and Skin Diseases Research Total				<u>316,779</u>	<u>3,658,424</u>
National Institutes of Health	93.847	Direct	Diabetes, Digestive, and Kidney Diseases Extramural Research	1,499,177	16,131,591
Albert Einstein College of Medicine	93.847	R01DK135079	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	4,462
Beckman Research Institute City of Hope	93.847	64329.2011887.669301	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	51,691
Boston Children's Hospital	93.847	PO#GENFD0001992893	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	36,320
Boston University	93.847	4500004267	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	74,833
Boston University	93.847	4500003441	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	16,846

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Boston University	93.847	4500004238	Diabetes, Digestive, and Kidney Diseases Extramural Research	\$ —	34,890
Boston University	93.847	4500003442	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	15,047
Brigham and Women's Hospital	93.847	120966	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	11,971
Duke University	93.847	1 R01 DK136231-01	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	24,685
Duke University	93.847	A033213	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	8,811
Jackson Laboratory	93.847	210357-1121-02	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	45,363
Kaiser Foundation Research Institute	93.847	OOS030228UMASS	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	8,425
Massachusetts General Hospital	93.847	238644	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	30,810
Research Foundation – Cuny	93.847	CM00005412-00	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	45,118
Temple University	93.847	261778-UMASS	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	1,354
Tufts University	93.847	104459-00001	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	174,334
Tulane University	93.847	TUL-HSC-558016-20/21	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	44,912
University of Alabama	93.847	1U01DK120379	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	(54,360)
University of California San Diego	93.847	5R01DK107585-05	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	264,169
University of Illinois at Chicago	93.847	18365	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	(1,246)
University of North Carolina	93.847	5114984	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	(50,834)
University of Pennsylvania	93.847	576045	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	139,835
University of Wisconsin Madison	93.847	5U54DK104310-08	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	30,374
University of Wisconsin Madison	93.847	2U54DK104310-06	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	97,272
Diabetes, Digestive, and Kidney Diseases Extramural Research Total				<u>1,499,177</u>	<u>17,186,673</u>
National Institutes of Health	93.853	Direct	Extramural Research Programs in the Neurosciences and Neurological Disorders	1,480,314	11,913,610
Arizona State University	93.853	ASUB00001241	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	75,073
Butler University	93.853	UMASS-001214	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	14,361
Focalcool LLC	93.853	R44NS095573	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	(19,168)
Massachusetts General Hospital	93.853	233020	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	7,460
Medical College of Wisconsin	93.853	6188305	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	22,731
New York University	93.853	F1067-02	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	63,063
Northwestern University	93.853	R01NS115571	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	314,155
Research Foundation of Suny	93.853	1169527-91875	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	20,361
Research Foundation of Suny	93.853	R21NS125845	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	55,747
The Broad Institute	93.853	5001355-5500001678	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	3,940
University of California Davis	93.853	A21-0985-S004	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	124,403
University of Cincinnati	93.853	U01NS110728	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	824
University of Cincinnati	93.853	011266-133390	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	16,625
University of Cincinnati	93.853	010785-133390	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	128
University of Illinois at Chicago	93.853	18211	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	30,040
Xtract Medical, Inc.	93.853	1 R41 NS129430-01	Extramural Research Programs in the Neurosciences and Neurological Disorders	—	91,301
Extramural Research Programs in the Neurosciences and Neurological Disorders Total				<u>1,480,314</u>	<u>12,734,654</u>
National Institutes of Health	93.855	Direct	Allergy and Infectious Diseases Research	4,181,949	35,216,708
Benaroya Research Institute at Vm	93.855	5UM1AI109565	Allergy and Infectious Diseases Research	—	7,005
Benaroya Research Institute at Vm	93.855	FY23ITN542	Allergy and Infectious Diseases Research	—	48,932
Beth Israel Deaconess Medical Center	93.855	1063071	Allergy and Infectious Diseases Research	—	(15,599)
Beth Israel Deaconess Medical Center	93.855	01063938/2220010039	Allergy and Infectious Diseases Research	—	73,528
Beth Israel Deaconess Medical Center	93.855	1063717	Allergy and Infectious Diseases Research	—	90,086
Boston Children's Hospital	93.855	1R24AI162637-01A1	Allergy and Infectious Diseases Research	—	53,265
Boston Children's Hospital	93.855	GENFD0002257605	Allergy and Infectious Diseases Research	—	81,723
Boston Children's Hospital	93.855	GENFD0002200125	Allergy and Infectious Diseases Research	—	36,990
Boston Children's Hospital	93.855	GENFD0001945252	Allergy and Infectious Diseases Research	—	35,860
Boston Children's Hospital	93.855	75N93019C00044	Allergy and Infectious Diseases Research	—	69,898
Boston College	93.855	SubBC--Boston College 5113071-1	Allergy and Infectious Diseases Research	—	273,111
Boston College	93.855	A21AI150090	Allergy and Infectious Diseases Research	—	655
Brigham and Women's Hospital	93.855	128695	Allergy and Infectious Diseases Research	—	1,548
Brigham and Women's Hospital	93.855	119509	Allergy and Infectious Diseases Research	—	51,864

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Brown University	93.855	00001168	Allergy and Infectious Diseases Research	\$ —	131,334
Case Western Reserve University	93.855	RES600307	Allergy and Infectious Diseases Research	—	155,175
Duke University	93.855	303001006	Allergy and Infectious Diseases Research	—	365,155
Emory University	93.855	A704119	Allergy and Infectious Diseases Research	—	35,586
Emory University	93.855	A455429	Allergy and Infectious Diseases Research	—	129,659
Epivax, Inc	93.855	Epivax/Research Agreement	Allergy and Infectious Diseases Research	—	(5,699)
Harvard Pilgrim Health Care, Inc.	93.855	U01AI153005-AH763	Allergy and Infectious Diseases Research	—	67,844
Hasentech LLC.	93.855	213173	Allergy and Infectious Diseases Research	—	8,365
Icahn School of Medicine at Mount Sinai	93.855	0255-A651-4609	Allergy and Infectious Diseases Research	—	166,956
Johns Hopkins University	93.855	2005246131	Allergy and Infectious Diseases Research	—	202,958
Lehigh University	93.855	R21AI163708	Allergy and Infectious Diseases Research	—	41,378
Massachusetts General Hospital	93.855	R56AI155505	Allergy and Infectious Diseases Research	—	13,990
Memorial Sloan-Kettering Cancer Center	93.855	MKSUB00000154	Allergy and Infectious Diseases Research	—	223,905
Michigan Technological University	93.855	1906009Z1	Allergy and Infectious Diseases Research	—	9,742
Microbiotix	93.855	PopBUMAmherst2020	Allergy and Infectious Diseases Research	—	109,662
Miriam Hospital	93.855	7147205SR	Allergy and Infectious Diseases Research	—	128,006
Oregon Health and Science University	93.855	1017567_UMMS	Allergy and Infectious Diseases Research	—	41,181
Planet Biotechnology, Inc.	93.855	4R44AI147930-02 SUB UMASS	Allergy and Infectious Diseases Research	—	9,453
Rutgers University	93.855	1R01AI143760-01A1	Allergy and Infectious Diseases Research	—	23,979
Rutgers University	93.855	3010	Allergy and Infectious Diseases Research	—	325,986
Rutgers University	93.855	3009	Allergy and Infectious Diseases Research	—	29,034
Rutgers University	93.855	SUB000002701	Allergy and Infectious Diseases Research	—	21,135
Sigmovir Biosystems, Inc.	93.855	5 R44 AI109926-05	Allergy and Infectious Diseases Research	—	84,799
Texas A&M University	93.855	M1803703	Allergy and Infectious Diseases Research	—	442,983
The Scripps Research Institute	93.855	5-2732	Allergy and Infectious Diseases Research	—	85,776
University of California Santa Cruz	93.855	A20-0263-S001	Allergy and Infectious Diseases Research	—	16,148
University of Florida	93.855	R01AI175007	Allergy and Infectious Diseases Research	—	13,204
University of Florida	93.855	U19AI149646	Allergy and Infectious Diseases Research	—	155,188
University of Georgia	93.855	R01AI141648	Allergy and Infectious Diseases Research	—	170,114
University of Missouri	93.855	C00070624-1	Allergy and Infectious Diseases Research	—	108,801
University of Pittsburgh	93.855	CNVA00056812 (136461-12)	Allergy and Infectious Diseases Research	—	21,338
University of Rochester	93.855	SUB00000153/URFAO: GR531577	Allergy and Infectious Diseases Research	—	39,589
University of Rochester	93.855	SUB000000003/GR530075	Allergy and Infectious Diseases Research	—	54,009
University of Texas at San Antonio	93.855	1000005280	Allergy and Infectious Diseases Research	—	48,819
University of Texas at San Antonio	93.855	1000002233	Allergy and Infectious Diseases Research	—	55,381
University of Utah	93.855	10062103-03-UMASS	Allergy and Infectious Diseases Research	—	164,268
University of Washington	93.855	UWSC13601	Allergy and Infectious Diseases Research	—	154,638
Washington University	93.855	WU-21-404-MOD-2	Allergy and Infectious Diseases Research	—	(78,800)
Washington University	93.855	WU-21-340	Allergy and Infectious Diseases Research	—	320,191
Weill Cornell Medical College	93.855	200543-6	Allergy and Infectious Diseases Research	—	405,275
Weill Cornell Medical College	93.855	To Be Determined	Allergy and Infectious Diseases Research	—	10,583
Weill Cornell Medical College	93.855	230472-6	Allergy and Infectious Diseases Research	—	374,129
Weill Cornell Medical College	93.855	UM1AI164565	Allergy and Infectious Diseases Research	—	17,800
Weill Cornell Medical College	93.855	211594	Allergy and Infectious Diseases Research	—	298,579
Weill Cornell Medical College	93.855	R01AI46180	Allergy and Infectious Diseases Research	—	283,385
Weill Cornell Medical College	93.855	200682	Allergy and Infectious Diseases Research	—	396,221
Weill Cornell Medical College	93.855	211027-2	Allergy and Infectious Diseases Research	—	130,819
Yale University	93.855	CON-80004305 (GR119842)	Allergy and Infectious Diseases Research	—	162,713
Allergy and Infectious Diseases Research Total				4,181,949	42,196,308
National Institutes of Health	93.859	Direct	Biomedical Research and Research Training	996,382	35,233,554
Brigham and Women's Hospital	93.859	120184	Biomedical Research and Research Training	—	81,806
Brown University	93.859	00002212	Biomedical Research and Research Training	—	5,498
Emory University	93.859	R01GM123136	Biomedical Research and Research Training	—	105,627
The American Society for Cell Biology	93.859	UMMS-UE5GM139190	Biomedical Research and Research Training	—	43,309
Tufts University	93.859	103012-00004	Biomedical Research and Research Training	—	27,066

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Tufts University	93.859	103012 PO EP0222934	Biomedical Research and Research Training	\$ —	14,605
Tufts University	93.859	4K12GM074869-10	Biomedical Research and Research Training	—	(6)
Tufts University	93.859	EP0227788	Biomedical Research and Research Training	—	6,419
Tufts University	93.859	1K12GM133314-01	Biomedical Research and Research Training	—	28,912
University of California Davis	93.859	A18-0909-S001	Biomedical Research and Research Training	—	(2,081)
University of Chicago	93.859	AWD102126	Biomedical Research and Research Training	—	393,910
University of Utah	93.859	R24GM136986	Biomedical Research and Research Training	—	19,624
University of Wisconsin Madison	93.859	PRE-ESTAB	Biomedical Research and Research Training	—	85,087
Worcester Polytechnic Institute	93.859	11046-GR	Biomedical Research and Research Training	—	194,982
Worcester Polytechnic Institute	93.859	10622-GR	Biomedical Research and Research Training	—	1,246
Biomedical Research and Research Training Total				<u>996,382</u>	<u>36,239,558</u>
Olive View Ucla Education Research Inst	93.860	22-03	COVID-19 Emerging Infections Sentinel Networks	—	218,939
National Institutes of Health	93.865	Direct	Child Health and Human Development Extramural Research	2,296,045	13,035,988
Boston Medical Center	93.865	02_UMMS_03288	Child Health and Human Development Extramural Research	—	107,264
Boston University	93.865	4500004339	Child Health and Human Development Extramural Research	—	23,548
Brandeis University	93.865	GR404243_UMMS	Child Health and Human Development Extramural Research	—	13,786
Brandeis University	93.865	GR404243_UMMS	Child Health and Human Development Extramural Research	—	29,880
Brandeis University	93.865	403519	Child Health and Human Development Extramural Research	—	(1,338)
Florida State University	93.865	R01D093055	Child Health and Human Development Extramural Research	—	(159,517)
Marist College	93.865	FD064-NIH	Child Health and Human Development Extramural Research	—	34,938
Massachusetts General Hospital	93.865	1R01HD091211-01A1	Child Health and Human Development Extramural Research	—	(191)
New York University	93.865	F1578-01	Child Health and Human Development Extramural Research	—	1,017
Northwestern University	93.865	82328,UMass.Y2	Child Health and Human Development Extramural Research	—	32,737
Rehabilitation Institute of Chicago	93.865	82387,UMass.Y1	Child Health and Human Development Extramural Research	—	5,786
Stanford University	93.865	62936574-153996	Child Health and Human Development Extramural Research	—	30,449
University of Alabama	93.865	000526572-SC002	Child Health and Human Development Extramural Research	—	14,690
University of Minnesota	93.865	1U54HD093540-01	Child Health and Human Development Extramural Research	—	530
University of North Carolina	93.865	5108779	Child Health and Human Development Extramural Research	—	(5,789)
University of Southern California	93.865	SCON-00003172	Child Health and Human Development Extramural Research	—	10,349
University of Wisconsin – Milwaukee	93.865	223405549	Child Health and Human Development Extramural Research	—	12,972
University of Wisconsin – Milwaukee	93.865	203405448	Child Health and Human Development Extramural Research	—	14,438
Weill Cornell Medical College	93.865	224095	Child Health and Human Development Extramural Research	—	122,233
Weill Cornell Medical College	93.865	1R01HD088571-01A1	Child Health and Human Development Extramural Research	—	58,018
Child Health and Human Development Extramural Research Total				<u>2,296,045</u>	<u>13,381,788</u>
National Institutes of Health	93.866	Direct	Aging Research	2,967,064	17,217,660
Arizona State University	93.866	ASUB00000634	Aging Research	—	550,751
Beth Israel Deaconess Medical Center	93.866	01062856	Aging Research	—	176,398
Boston University	93.866	4500004585	Aging Research	—	19,351
Boston University	93.866	4500004455	Aging Research	—	166,966
Brigham and Women's Hospital	93.866	120969	Aging Research	—	50,082
Brigham and Women's Hospital	93.866	123965	Aging Research	—	5,850
Brown University	93.866	U54AG063546	Aging Research	—	56,061
Clemson University	93.866	1R03AG065637-01	Aging Research	—	595
Columbia University Medical Center	93.866	1(GG17425-01)	Aging Research	—	148,558
Leadingage	93.866	RSA Dated 4/13/22	Aging Research	—	25,247
Leadingage	93.866	R21AG069019	Aging Research	—	48,225
Massachusetts General Hospital	93.866	R21AG074220-02	Aging Research	—	13,420
Massachusetts General Hospital	93.866	239525	Aging Research	—	13,502
Massachusetts General Hospital	93.866	PRE-ESTAB	Aging Research	—	198,510
Massachusetts General Hospital	93.866	239567	Aging Research	—	100,524
North CA Institute for Research and Ed	93.866	R24AG064025	Aging Research	—	45,868
Purdue University	93.866	1R56AG062767-01	Aging Research	—	(3,039)
State University of N.Y. at Buffalo Suny	93.866	R1293036	Aging Research	—	10,473



**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
The American Geriatrics Society	93.866	1R25AG071488-01-MA	Aging Research	\$ —	90,216
University of Alabama	93.866	A19-0473-S001	Aging Research	—	29,510
University of California Santa Barbara	93.866	KK2267	Aging Research	—	111,419
University of California Santa Barbara	93.866	KK2273 Pre-Estab	Aging Research	—	81,575
University of Connecticut Health Center	93.866	UCHC7-137277511	Aging Research	—	31,867
University of Pennsylvania	93.866	5R56AG06913002	Aging Research	—	66,421
University of Pittsburgh	93.866	AWD00003000 (135310-8)	Aging Research	—	259,451
University of Washington	93.866	UWSC10987	Aging Research	—	135,083
Aging Research Total				<u>2,967,064</u>	<u>19,650,544</u>
National Institutes of Health	93.867	Direct	Vision Research	166,684	1,913,900
Brigham and Women's Hospital	93.867	126553	Vision Research	—	169,363
Schepens Eye Research Institute	93.867	533483	Vision Research	—	348,988
Vision Research Total				<u>166,684</u>	<u>2,432,251</u>
National Institutes of Health	93.879	Direct	Medical Library Assistance	537,902	2,185,460
Health Resources Service Administration	93.918	Direct	Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	—	480,360
MA Department of Public Health	93.918	INTF4944MM3181926039	Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	—	8,070
Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease Total				<u>—</u>	<u>488,430</u>
Health Resources Service Administration	93.928	Direct	Special Projects of National Significance	714,495	1,065,018
Boston University	93.928	6U90HA45813-01-01	Special Projects of National Significance	—	30,186
Special Projects of National Significance Total				<u>714,495</u>	<u>1,095,204</u>
New York University	93.936	18-A0-00-1001556	National Institutes of Health Acquired Immunodeficiency Syndrome Research Loan Repayment Program	—	162,395
National Institutes of Health	93.989	Direct	International Research and Research Training	76,338	190,220
Hanoi Medical University	93.989	1D43TW011394-01	International Research and Research Training	—	97,302
International Research and Research Training Total				<u>76,338</u>	<u>287,522</u>
MA Department of Public Health	93.991	INTF3401M03181228065	Preventive Health and Health Services Block Grant	3,300	85,484
Centers for Disease Control and Prevention	93.RD	Direct/75D30121P10027	COVID-19 Department of Health and Human Services Contracts	—	(77)
Centers for Disease Control and Prevention	93.RD	Direct	Miscellaneous Department of Health and Human Services	—	222,852
National Institutes of Health	93.RD	Direct	Department of Health and Human Services Contracts	666,693	1,644,279
Children's Research Institute	93.RD	Site Agmt#: 30004438	Miscellaneous Department of Health and Human Services	—	2,751
Duke University	93.RD	SA-D401-02	COVID-19 Department of Health and Human Services Contracts	—	105,857
Harvard Medical School	93.RD	149880.5109492.0208	Miscellaneous Department of Health and Human Services	—	226,843
Harvard School of Public Health	93.RD	109786.5110785	Department of Health and Human Services Contracts	—	653,135
Harvard School of Public Health	93.RD	109786.5110783	Department of Health and Human Services Contracts	—	362,015
Health Research, Inc.	93.RD	6177-05	Department of Health and Human Services Contracts	—	250,970
Health Research, Inc.	93.RD	7213-01	Department of Health and Human Services Contracts	—	53,680
Leidos Biomedical Research, Inc.	93.RD	20CTA-DM00027	COVID-19 Department of Health and Human Services Contracts	—	(112,194)
Mathematica Policy Research	93.RD	HHSP23337038T	Department of Health and Human Services Contracts	—	21,677
Physical Sciences Incorporated	93.RD	10-01145-8036-46	Department of Health and Human Services Contracts	—	(8,670)
PPD Investigator Services, LLC.	93.RD	ACTIV-2/A5401 IND#151193	Department of Health and Human Services ContractsAdaptive Platform Treatment Trial for Outpatients with COVID -19	—	19,025
Research Triangle Institute	93.RD	40-312-0214780-66515L	Department of Health and Human Services Contracts	—	151,549
Seattle Children's Hospital	93.RD	12755SUB	Department of Health and Human Services Contracts	—	84,188
Seattle Children's Hospital	93.RD	12929SUB	Department of Health and Human Services Contracts	—	29,219
The Broad Institute	93.RD	5000854-5500001511	COVID-19 Department of Health and Human Services Contracts	—	41,536
University of Alabama	93.RD	HHSN26800001	Department of Health and Human Services Contracts	—	48,385
University of North Carolina	93.RD	5118984	Department of Health and Human Services Contracts	—	22,087
University of North Carolina	93.RD	5115233	Department of Health and Human Services Contracts	—	(5,636)

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
University of North Carolina	93.RD	5126248	Department of Health and Human Services Contracts	\$ —	30,290
University of Wisconsin Madison	93.RD	75N93021C00004	Department of Health and Human Services Contracts	—	219,922
MA Department of Public Health	93.RD	90LRLI0048-01-00	Miscellaneous Department of Health and Human Services	—	75,538
Venturewell	93.RD	75N92022D00010	Department of Health and Human Services Contracts	—	369,517
Department of Health and Human Services Contracts Total				<u>666,693</u>	<u>4,508,738</u>
Department of Health and Human Services Total				<u>39,591,885</u>	<u>290,676,940</u>
Department of Homeland Security:					
MA Emergency Management Agency	97.039	ISACDAH437905UM821A	Hazard Mitigation Grant	49,875	53,988
U.S. Department of Homeland Security	97.044	Direct	Assistance to Firefighters Grant	28,907	298,317
State University Of Ny At Albany	97.061	2-94944	Centers for Homeland Security	—	25,932
U.S. Department of Homeland Security	97.108	Direct	Homeland Security, Research, Testing, Evaluation, and Demonstration of Technologies	—	64,042
Department of Homeland Security Total				<u>78,782</u>	<u>442,279</u>
Department of Housing and Urban Development:					
Town of Chester	14.228	016055-00002	Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii	—	(1,938)
Town of Chester	14.228	016366-00002	Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii	—	735
Town of Chester	14.228	016953-00002	Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii	—	77,858
Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii Total				<u>—</u>	<u>76,655</u>
U.S. Dept of Housing and Urban Development	14.906	Direct	Healthy Homes Technical Studies Grants	63,130	316,346
Department of Housing and Urban Development Total				<u>63,130</u>	<u>393,001</u>
Department of Justice:					
U.S. Department of Justice	16.543	Direct	Missing Children's Assistance	—	24,447
National Institute of Justice	16.560	Direct	National Institute of Justice Research, Evaluation, and Development Project Grants	—	245,152
Advocates for Human Potential, Inc.	16.560	7498-OJP-UML-01	National Institute of Justice Research, Evaluation, and Development Project Grants	—	39,018
Cuny City College	16.560	2017-VT-BX-0002	National Institute of Justice Research, Evaluation, and Development Project Grants	—	(1)
Development Services Group, Inc.	16.560	DSG – UML 2020-01	National Institute of Justice Research, Evaluation, and Development Project Grants	—	44,283
Northeastern University	16.560	504625-78051	National Institute of Justice Research, Evaluation, and Development Project Grants	—	(15,659)
Sam Houston State University	16.560	p22077B	National Institute of Justice Research, Evaluation, and Development Project Grants	—	40,060
Wellesley College	16.560	26316-01	National Institute of Justice Research, Evaluation, and Development Project Grants	—	(466)
National Institute of Justice Research, Evaluation, and Development Project Grants Total				<u>—</u>	<u>352,387</u>
Town of Amherst	16.590	015940-00002	Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program	—	61,880
Town of Belchertown	16.590	015942-00002	Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program	—	69,176
Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program Total				<u>—</u>	<u>131,056</u>
U.S. Department of Justice	16.602	Direct	Corrections-Research and Evaluation and Policy formulation	11,120	36,623
Fox Valley Technical College	16.608	D2020010054	Tribal Justice Systems and Alcohol and Substance Abuse	—	1,712
U.S. Department of Justice	16.710	Direct	Public Safety Partnership and Community Policing Grants	—	67,276
NATIONAL 4-H COUNCIL	16.726	15PJDD21GG02766MENT	Juvenile Mentoring Program	—	34,128
National 4-H Council	16.726	2020-JU-FX-0031	Juvenile Mentoring Program	—	6,393
Juvenile Mentoring Program Total				<u>—</u>	<u>40,521</u>
City of Lowell	16.745	PO# 21100627	Criminal and Juvenile Justice and Mental Health Collaboration Program	—	87,680
Executive Office of The Trial Court	16.812	BJA-2016-9197	Second Chance Act Reentry Initiative	—	18,658
City of Lowell	16.838	PO# 21100628	Comprehensive Opioid, Stimulant, and Substance Abuse Program	—	80,904
Federal Bureau of Investigation	16.RD	15F06721F0001320	Department of Justice Contracts	—	20,048

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Federal Bureau of Investigation	16.RD	15F06721P0003689	Department of Justice Contracts	\$ —	94,910
Federal Bureau of Investigation	16.RD	15F06721P0003624	Department of Justice Contracts	46,348	737,100
Federal Bureau of Investigation	16.RD	15F06720P0001744	Department of Justice Contracts	—	8,631
Department of Justice Contracts Total				<u>46,348</u>	<u>860,689</u>
Ma Office For Victim Assistance	16.575	015784-00002	Crime Victim Assistance	—	5,500
Ma Office For Victim Assistance	16.575	VOCA2023UMAM00000000	Crime Victim Assistance	—	179,209
Crime Victim Assistance Total				<u>—</u>	<u>184,709</u>
Department of Justice Total				<u>57,468</u>	<u>1,886,662</u>
Department of Labor:					
MA Executive Office of Elder Affairs	17.235	ISAELD91101073UMB21A	Senior Community Service Employment Program	—	50,208
Council of State Governments	17.RD	20-SA-053-2801	Department of Labor Contracts	—	1,379
Department of Labor Total				<u>—</u>	<u>51,587</u>
Department of State:					
Meridian International Center	19.009	021-0007-1117-03	Academic Exchange Programs – Undergraduate Programs	—	(882)
U.S. Department of State	19.019	Direct	International Programs to Combat Human Trafficking	62,711	96,910
Global Fund To End Modern Slavery	19.019	Service Agreement dated 9/4/19	International Programs to Combat Human Trafficking	—	43,740
New York University	19.019	S1471-02	International Programs to Combat Human Trafficking	—	28,663
New York University	19.019	S1472-02	International Programs to Combat Human Trafficking	—	32,109
International Organization For Migration	19.019	2022-C03545	International Programs to Combat Human Trafficking	—	26,634
New York University	19.019	F2072-03	International Programs to Combat Human Trafficking	—	1,821
New York University	19.019	F2153-03	International Programs to Combat Human Trafficking	—	24,042
Norc	19.019	G195.UML.01	International Programs to Combat Human Trafficking	—	40,719
University Of Georgia Research Fdn, Inc.	19.019	SUB00002457	International Programs to Combat Human Trafficking	35,541	313,948
Washington University	19.019	ST00011975/WU-23-0356	International Programs to Combat Human Trafficking	—	60,389
International Programs to Combat Human Trafficking Total				<u>98,252</u>	<u>668,975</u>
INT'L RESEARCH AND EXCHANGES BOARD	19.408	FY23-FTEA-UML-01	Academic Exchange Programs – Teachers	—	249,488
FHI 360	19.421	PO23000711	Academic Exchange Programs – English Language Programs	—	42,256
Academic Exchange Programs Total				<u>—</u>	<u>291,744</u>
Department of State Total				<u>98,252</u>	<u>959,837</u>
Department of the Interior:					
Bureau Of Ocean Energy Management	15.423	Direct Programs	Bureau of Ocean Energy Management (BOEM) Environmental Studies (ES)	—	195,197
Texas A&M University	15.441	E21AC00000-00	Safety and Environmental Research and Data Collection for Offshore Energy and Mineral Activities	—	43,655
Bureau Of Reclamation	15.560	Direct Programs	SECURE Water Act Research Agreements	—	67,819
MA Department of Fish and Game	15.634	F20AP00243	State Wildlife Grants	—	44,935
Ma Division Of Fisheries And Wildlife	15.634	F22AP00595-00	State Wildlife Grants	—	60,280
State Wildlife Grants Total				<u>—</u>	<u>105,215</u>
U.S. Fish And Wildlife Service	15.647	Direct Programs	Migratory Bird Conservation	—	3,556
National Fish And Wildlife Foundation	15.663	0111.22.078638	NFWF-USFWS Conservation Partnership	—	6,636
U.S. Fish and Wildlife Service	15.670	Direct	Adaptive Science	—	40,100
Wildlife Management Institute	15.670	F20AC00356	Adaptive Science	—	(7,910)
Adaptive Science Total				<u>—</u>	<u>32,190</u>
U.S. Geological Survey	15.805	Direct	Assistance to State Water Resources Research Institutes	94,407	236,732
U.S. Geological Survey	15.807	Direct	Earthquake Hazards Program Assistance	—	(4,954)
U.S. Geological Survey	15.808	Direct	U.S. Geological Survey – Research and Data Collection	480,313	1,039,527

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Southern California Earthquake Center	15.808	Pre-estab	U.S. Geological Survey – Research and Data Collection	\$ —	6,081
Southern California Earthquake Center	15.808	SCON-00003730	U.S. Geological Survey – Research and Data Collection	—	31,256
U.S. Geological Survey – Research and Data Collection Total				<u>480,313</u>	<u>1,076,864</u>
Maine Geological Survey	15.810	CT 01A 20221101*1250	National Cooperative Geologic Mapping	—	235
U.S. Geological Survey	15.812	Direct	Cooperative Research Units	6,804	749,417
U.S. Geological Survey	15.820	Direct	National and Regional Climate Adaptation Science Centers	835,700	1,850,183
National Park Service	15.945	Direct	Cooperative Research and Training Programs Resources of the National Park System	—	130,183
Richard Grubb and Associates, Inc.	15.946	140P1319FO201	Cultural Resources Management	—	7,177
U.S. Department of Interior	15.954	Direct	National Park Service Conservation, Protection, Outreach, and Education	—	213,109
Ma Dept Of Conservation And Recreation	15.980	G21AC10417	National Ground-Water Monitoring Network	—	10,358
U.S. Geological Survey	15.RD	140G0118C0010 / PO# 0040362221	Department of the Interior Contracts	—	193,634
Department of the Interior Total				<u>1,417,224</u>	<u>4,917,206</u>
Department of Transportation:					
Federal Aviation Administration	20.108	Direct	Aviation Research Grants	—	90,363
University Of Wisconsin	20.200	737K634	Highway Research and Development Program	—	13,083
Federal Highway Administration	20.215	Direct	Highway Training and Education	—	4,127
MA Department of Transportation	20.505	INTF00X02020A0109600	Metropolitan Transportation Planning and State and Non-Metropolitan Planning and Research	48,000	4,199,703
Pioneer Valley Transit Authority	20.505	PVTA 23060795 PRIME FTA	Metropolitan Transportation Planning and State and Non-Metropolitan Planning and Research	—	36,661
Metropolitan Transportation Planning and State and Non-Metropolitan Planning and Research Total				<u>48,000</u>	<u>4,236,364</u>
Pioneer Valley Transit Authority	20.530	HOPE PROGRAM	Public Transportation Innovation	—	42,720
Pioneer Valley Transit Authority	20.530	MA20210120100	Public Transportation Innovation	—	23,899
Public Transportation Innovation Total				<u>—</u>	<u>66,619</u>
University of Iowa Health Care	20.701	69A3551747131	University Transportation Centers Program	—	345,435
University of Maine	20.701	UMS-1183	University Transportation Centers Program	—	260,498
University Transportation Centers Program Total				<u>—</u>	<u>605,933</u>
Dunlap and Associates, Inc.	20.RD	DTNH2217D000031	Department of Transportation Contracts	—	(12,256)
Federal Railroad Administration	20.RD	FRA 693JJ622C000009	Department of Transportation Contracts	22,884	179,072
Tranalytics, Llc	20.RD	6913G622P800033	Department of Transportation Contracts	—	65,000
Maine Department of Transportation	20.RD	015947-00002	Department of Transportation Contracts	—	69,932
University Of Colorado	20.RD	FAR0028685(69A3551747108)	Department of Transportation Contracts	—	38,562
Department of Transportation Contracts Total				<u>22,884</u>	<u>340,310</u>
Department of Transportation Total				<u>70,884</u>	<u>5,356,799</u>
Department of Veterans Affairs:					
Department of Veterans Affairs	64.054	Direct	Research and Development	—	50,953
Department of Veterans Affairs	64.RD	PO 671D12005 : 36C24E19C0020 Amendment P00002	Department of Veterans Affairs Contracts	—	(7,885)
Department of Veterans Affairs	64.RD	Direct	Department of Veterans Affairs Contracts	—	62,176
University Of North Carolina	64.RD	5126397	Department of Veterans Affairs Contracts	—	14,662
Department of Veterans Affairs Contracts Total				<u>—</u>	<u>68,953</u>
Department of Veterans Affairs Total				<u>—</u>	<u>119,906</u>
Environmental Protection Agency:					
U.S. Environmental Protection Agency	66.110	Direct	Healthy Communities Grant Program	—	21,302
Washington Department Of Ecologyusd	66.123	C2300028	Geographic Programs – Puget Sound Action Agenda: Technical Investigations and Implementation Assistance Program	—	83,364
University of Connecticut	66.437	432205	Long Island Sound Program	—	32,627

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
U.S. Environmental Protection Agency	66.456	Direct	National Estuary Program	\$ —	147,765
MA Office of Coastal Zone Mngmnt	66.456	36901	National Estuary Program	—	19,354
MA Office of Coastal Zone Mngmnt	66.456	EPA#CE-00A00860	National Estuary Program	—	43,371
National Estuary Program Total				—	210,490
U.S. Environmental Protection Agency	66.461	Direct	Regional Wetland Program Development Grants	—	167,473
MA Dept of Environmental Protection	66.461	ISAEQE22309702UMS20C	Regional Wetland Program Development Grants	—	38,279
Regional Wetland Program Development Grants Total				—	205,752
U.S. Environmental Protection Agency	66.509	Direct	Science To Achieve Results (STAR) Research Program	—	183,671
U.S. Environmental Protection Agency	66.511	Direct	Office of Research and Development Consolidated Research/Training/Fellowships	938	79,802
Health Effects Institute	66.511	CR83998101	Office of Research and Development Consolidated Research/Training/Fellowships	64,800	150,062
Office of Research and Development Consolidated Research/Training/Fellowships Total				65,738	229,864
Assoc State Drinking Water Administrator	66.521	84024301	Innovative Water Technology Grant Program	—	42,526
MA Dept of Environmental Protection	66.605	ISA/BRP-RFR-2019-07-319 15537	Performance Partnership Grants	—	40,461
MA Dept of Agricultural Resources	66.700	00A00863 016738-00002	Consolidated Pesticide Enforcement Cooperative Agreements	—	18,717
MA Dept of Agricultural Resources	66.700	ISAAAGR25110310UMS21A	Consolidated Pesticide Enforcement Cooperative Agreements	—	7,808
Ma Dept Of Agricultural Resources	66.700	23030374	Consolidated Pesticide Enforcement Cooperative Agreements	—	45,286
Consolidated Pesticide Enforcement Cooperative Agreements Total				—	71,811
U.S. Environmental Protection Agency	66.708	Direct	Pollution Prevention Grants Program	—	135,184
Extension Foundation	66.716	8369801	Research, Development, Monitoring, Public Education, Outreach, Training, Demonstrations, and Studies	—	16,800
U.S. Environmental Protection Agency	66.716	Direct	Research, Development, Monitoring, Public Education, Outreach, Training, Demonstrations, and Studies	—	360
Research, Development, Monitoring, Public Education, Outreach, Training, Demonstrations, and Studies Total				—	17,160
Battelle Energy Alliance, LLC.	66.RD	241747	Environmental Protection Agency Contracts	—	3,981
Environmental Protection Agency Total				65,738	1,278,193
Millennium Challenge Corporation:					
Millenium Challenge Corporation	85.002	Direct	MCC Foreign Assistance for Overseas Programs	90,836	246,768
Millennium Challenge Corporation Total				90,836	246,768
Miscellaneous:					
University Of New Hampshire	54.001	PZL0250	Intelligence Community Centers for Academic Excellence	—	3,978
Miscellaneous Total				—	3,978
National Aeronautics and Space Administration:					
Jet Propulsion Laboratory	43.001	Direct	Science	—	342,794
NASA Goddard Space Flight Center	43.001	Direct	Science	—	1,303,971
National Aero and Space Administration	43.001	Direct	Science	1,087,624	3,960,213
Brown University	43.001	00001490	Science	—	18,240
California Institute of Technology	43.001	80NM0018D0004	Science	—	(9,380)
Michigan Technological University	43.001	80NSSC19M0107	Science	—	90,923
Ohio State University	43.001	PORF01614931 Award 60078490	Science	—	55,245
Purdue University	43.001	12000289-06	Science	—	2,299
SETI Institute	43.001	80NSSC19K1230	Science	—	29,397
SETI Institute	43.001	80NSSC21K1103	Science	—	49,440
SETI Institute	43.001	80NSSC21K1480	Science	—	34,651
Smithsonian Astrophysical Observatory	43.001	NAS8-03060	Science	—	74,923
Space Telescope Science Institute	43.001	HST-HF2-51484.001-A	Science	—	102,217
Space Telescope Science Institute	43.001	NASS- 26555	Science	—	4,821

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Space Telescope Science Institute	43.001	NASS-26555	Science	\$ —	467,795
Space Telescope Science Institute	43.001	NASS-26555/NASS-03127	Science	—	62,752
SRI International	43.001	PC36825	Science	—	6,555
Universities Space Research Association	43.001	NNA17BF53C	Science	—	17,351
University of California Irvine	43.001	80NSSC17K0698	Science	—	8,041
University of California Los Angeles	43.001	80NSSC20K1340	Science	—	82,617
University of Maryland	43.001	80NSSC21K0967	Science	—	76,178
University of North Carolina	43.001	80NSSC18M0099	Science	—	(12,347)
University of Toledo	43.001	80NSSC19K0591	Science	—	36,005
Woods Hole Oceanographic Institution	43.001	23114202	Science	—	39,725
Michigan State University	43.001	80NSSC21K0403	Science	—	75,356
Ohio State University	43.001	SPC-1000007124   GR127927	Science	—	3,789
Space Telescope Science Institute	43.001	JWST-GO-01762.001-A	Science	—	22,213
University Of Cincinnati	43.001	014629-00002	Science	—	30,978
University Of Toledo	43.001	F-2023-18	Science	—	52,123
Science Total				<u>1,087,624</u>	<u>7,028,885</u>
NASA Langley Research Center	43.002	Direct	Aeronautics	—	21,550
National Aero and Space Administration	43.002	Direct	Aeronautics	—	46,927
Aeronautics Total				<u>46,927</u>	<u>339,577</u>
National Aero and Space Administration	43.007	Direct	Space Operations	—	186,252
National Aero and Space Administration	43.008	Direct	Office of Stem Engagement (OSTEM)	171,985	440,432
National Aero and Space Administration	43.009	Direct	Safety, Security and Mission Services	—	19,481
NASA Stennis Space Center	43.012	Direct	Space Technology	—	109,796
National Aero and Space Administration	43.012	Direct	Space Technology	3,440	252,674
Michigan Technological University	43.012	1607060Z12	Space Technology	—	95,798
University Of Texas At Austin	43.012	UTAUS-SUB00000971	Space Technology	—	10,587
Space Technology Total				<u>3,440</u>	<u>468,855</u>
California Institute of Technology	43.RD	1486198	National Aeronautics and Space Administration Contracts	—	13,978
Jet Propulsion Laboratory	43.RD	Direct	National Aeronautics and Space Administration Contracts	—	22,149
Katabasis Engineering LLC.	43.RD	Agreement dated 12/11/2019	National Aeronautics and Space Administration Contracts	—	23,688
Ohio Aerospace Institute	43.RD	OAI-NSSC1-19384	National Aeronautics and Space Administration Contracts	—	8,532
Space Telescope Science Institute	43.RD	HST-GO-16914.016-A	National Aeronautics and Space Administration Contracts	—	14,662
Space Telescope Science Institute	43.RD	NASS-03127	National Aeronautics and Space Administration Contracts	—	78,932
Space Telescope Science Institute	43.RD	JWST-GO- 01837.059-A	National Aeronautics and Space Administration Contracts	—	81,324
Space Telescope Science Institute	43.RD	JWST-GO-01869.026-A	National Aeronautics and Space Administration Contracts	—	1,350
Space Telescope Science Institute	43.RD	JWST-GO-01895.014-A	National Aeronautics and Space Administration Contracts	—	3,259
Space Telescope Science Institute	43.RD	NASS-03127	National Aeronautics and Space Administration Contracts	—	37,786
Universities Space Research Association	43.RD	NNA17BF53C	National Aeronautics and Space Administration Contracts	—	80
University of New Hampshire	43.RD	L0138	National Aeronautics and Space Administration Contracts	—	28,211
National Aeronautics and Space Administration Contracts Total				<u>—</u>	<u>313,951</u>
National Aeronautics and Space Administration Total				<u>1,309,976</u>	<u>8,797,433</u>
National Credit Union Administration: Physical Sciences Incorporated	44.002	10-19605-108132-46	Community Development Revolving Loan Fund Program for Credit Unions	—	24,419
National Credit Union Administration Total				<u>—</u>	<u>24,419</u>
National Endowment for the Arts: National Endowment for The Arts	45.024	Direct	Promotion of the Arts-Grants to Organizations and Individuals	—	16,421
National Endowment for the Arts Total				<u>—</u>	<u>16,421</u>



**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
National Endowment for the Humanities:					
National Endowment for The Humanities	45.149	Direct	Promotion of the Humanities-Division of Preservation and Access	\$ 7,223	19,773
National Endowment for The Humanities	45.160	Direct	Promotion of the Humanities-Fellowships and Stipends	—	37,401
The Teagle Foundation	45.162	AH-274009-20	Promotion of the Humanities-Teaching and Learning Resources and Curriculum Development	—	24,732
National Endowment for The Humanities	45.163	Direct	Promotion of the Humanities-Professional Development	—	81,286
Uss Constitution Museum	45.163	20201014-AV	Promotion of the Humanities-Professional Development	—	6,736
Promotion of the Humanities-Professional Development Total				—	88,022
National Endowment for the Humanities Total				7,223	169,928
National Science Foundation:					
National Science Foundation	47.041	Direct	Engineering Grants	574,464	8,215,146
American Soc. for Engineering Education	47.041	2127509	Engineering Grants	—	196,407
Ernest Pharmaceuticals LLC.	47.041	015988-00002	Engineering Grants	—	60,213
Harvard University	47.041	168002-5111737	Engineering Grants	—	38,351
Johns Hopkins University	47.041	2004594343	Engineering Grants	—	(5,055)
Johns Hopkins University	47.041	2004987934	Engineering Grants	—	(2,401)
Johns Hopkins University	47.041	2004987947	Engineering Grants	—	(16,697)
Johns Hopkins University	47.041	2005450358	Engineering Grants	—	89,810
Johns Hopkins University	47.041	2005450426	Engineering Grants	—	53,042
Johns Hopkins University	47.041	2005450435	Engineering Grants	—	83,881
Massachusetts Institute of Technology	47.041	S5486 PO#646363	Engineering Grants	—	38,258
Northeastern University	47.041	1907250	Engineering Grants	—	60,756
Northeastern University	47.041	502981-78050	Engineering Grants	—	28,572
Optical Waters LLC.	47.041	2136341	Engineering Grants	—	70,186
Research Foundation – Cuny	47.041	CM00007255-00	Engineering Grants	—	30,476
University of Arizona	47.041	1941583	Engineering Grants	—	207,373
University of Missouri	47.041	C00065788-1	Engineering Grants	—	64,232
University of Rhode Island	47.041	0008544/11092020	Engineering Grants	—	40,387
Johns Hopkins University	47.041	2005854199	Engineering Grants	—	1,137
Johns Hopkins University	47.041	2005854293	Engineering Grants	—	12,386
Johns Hopkins University	47.041	2005929532	Engineering Grants	—	3,216
University Of Illinois	47.041	2220924	Engineering Grants	—	45,072
Engineering Grants Total				574,464	9,314,748
National Science Foundation	47.049	Direct	Mathematical and Physical Sciences	649,467	10,651,491
Brandeis University	47.049	2011846	Mathematical and Physical Sciences	—	140,619
Columbia University	47.049	1948993	Mathematical and Physical Sciences	—	178,617
East Carolina University	47.049	AWD-21-0858-S002	Mathematical and Physical Sciences	—	13,069
Massachusetts Institute of Technology	47.049	2034306	Mathematical and Physical Sciences	—	338,228
National Radio Astronomy Observatory	47.049	1519126	Mathematical and Physical Sciences	—	11,695
Smithsonian Astrophysical Observatory	47.049	AST 1935980	Mathematical and Physical Sciences	—	407,091
University of California Davis	47.049	A19-1887-S002	Mathematical and Physical Sciences	—	19,973
University of Pennsylvania	47.049	2134715	Mathematical and Physical Sciences	—	24,477
Northwestern University	47.049	2209585	Mathematical and Physical Sciences	—	34,064
Stony Brook University	47.049	2120747	Mathematical and Physical Sciences	—	183,898
University Of Oregon	47.049	2016V0B	Mathematical and Physical Sciences	—	14,995
Mathematical and Physical Sciences Total				649,467	12,018,217
National Science Foundation	47.050	Direct	Geosciences	11,259	3,218,207
Marine Biological Laboratory	47.050	OCE-1637630 / 52682	Geosciences	—	48,548
University of Maryland	47.050	SA07523110 PO85907	Geosciences	—	14,444
University of Texas at Austin	47.050	17-000314	Geosciences	—	20,315

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Woods Hole Oceanographic Institution	47.050	OCE-1655686	Geosciences	\$ —	153,978
Dauphin Island Sea Lab	47.050	2709KD-UMD	Geosciences	—	18,826
Geosciences Total				11,259	3,474,318
National Science Foundation	47.070	Direct	Computer and Information Science and Engineering	422,231	13,223,164
Columbia University	47.070	1916585	Computer and Information Science and Engineering	—	13,698
Computing Research Association	47.070	2021CIF-UMass-58	Computer and Information Science and Engineering	—	144,669
Computing Research Association	47.070	2030859	Computer and Information Science and Engineering	—	64,034
Computing Research Association	47.070	2127309	Computer and Information Science and Engineering	—	99,901
Georgia Inst of Tech Research Inst	47.070	2112633	Computer and Information Science and Engineering	—	416,534
Millimeter Wave Systems, LLC.	47.070	NSF SBIR Phase 2	Computer and Information Science and Engineering	—	120,939
Ohio State University	47.070	2112471	Computer and Information Science and Engineering	—	75,536
University of Illinois at Chicago	47.070	18347	Computer and Information Science and Engineering	—	2,996
University of Michigan	47.070	1617898	Computer and Information Science and Engineering	—	1,244
University of Utah	47.070	10045119-UMAmherst	Computer and Information Science and Engineering	—	(49)
Woodwell Climate Research Center, Inc.	47.070	2125409	Computer and Information Science and Engineering	—	2,366
Computer and Information Science and Engineering Total				422,231	14,165,032
National Science Foundation	47.074	Direct	Biological Sciences	96,815	6,306,378
Arizona State University	47.074	ASUB00000219	Biological Sciences	—	1,104
Cold Spring Harbor Laboratory	47.074	2129189	Biological Sciences	—	237,883
Harvard University	47.074	2101884	Biological Sciences	—	13,559
Michigan State University	47.074	1946007	Biological Sciences	—	34,588
New York Botanical Garden	47.074	1802034-01-UMASS	Biological Sciences	—	(1)
Syracuse University	47.074	2134215	Biological Sciences	—	125,750
Univ of CA -Riverside	47.074	S-001211	Biological Sciences	—	263
University of Denver	47.074	2030753	Biological Sciences	—	111,625
University of Pittsburgh	47.074	AWD00004485 (012686-3)	Biological Sciences	—	181,117
University of Tennessee	47.074	1814520	Biological Sciences	—	70,754
Washington University	47.074	1947609	Biological Sciences	—	95,890
Georgetown University	47.074	AWD7774289-GR285078	Biological Sciences	—	43,249
University Of San Diego	47.074	2119918	Biological Sciences	—	9,195
Yale University	47.074	1840243	Biological Sciences	—	25,256
Biological Sciences Total				96,815	7,256,610
National Science Foundation	47.075	Direct	Social, Behavioral, and Economic Sciences	86,610	2,181,579
Syracuse University	47.075	1917908	Social, Behavioral, and Economic Sciences	—	8,146
University of California Irvine	47.075	2147011	Social, Behavioral, and Economic Sciences	—	30,352
University of Central Florida	47.075	16206076	Social, Behavioral, and Economic Sciences	—	52,477
Williams College	47.075	2020-NSF1947464-UMASS	Social, Behavioral, and Economic Sciences	—	26,483
Woods Hole Oceanographic Institution	47.075	A101459	Social, Behavioral, and Economic Sciences	—	9,656
Social, Behavioral, and Economic Sciences Total				86,610	2,308,693
National Science Foundation	47.076	Direct	Education and Human Resources	1,190,163	8,090,707
American Chemical Society	47.076	1806607	Education and Human Resources	—	10,908
Council for Opportunity In Education	47.076	1759163-4	Education and Human Resources	—	1,183
Education Development Center, Inc.	47.076	2050641	Education and Human Resources	—	110,111
Embry Riddle Aeronautical University Inc	47.076	1956193	Education and Human Resources	—	38,851
MA Department of Higher Education	47.076	ISARGT70661575UMS19A	Education and Human Resources	—	13,253
Northern Arizona University	47.076	1856384	Education and Human Resources	—	12,496
Tufts University	47.076	103512-00001	Education and Human Resources	—	5,416
University of California San Diego	47.076	DUE-1821521	Education and Human Resources	—	2,311
University of Central Florida	47.076	16406266	Education and Human Resources	—	12,340
University of Connecticut	47.076	148606934	Education and Human Resources	—	39,068
University of Connecticut	47.076	2110083	Education and Human Resources	—	57,285
University of Florida	47.076	2128479	Education and Human Resources	—	301

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
University of Southern California	47.076	109190808	Education and Human Resources	\$ —	26,182
Worcester Polytechnic Institute	47.076	10593-GR	Education and Human Resources	—	38,127
Worcester Polytechnic Institute	47.076	10828-GR	Education and Human Resources	—	46,641
American Educational Research Assoc	47.076	AERA Grants Program	Education and Human Resources	—	1,883
Northeastern University	47.076	502996-78055	Education and Human Resources	—	176,886
University Of Minnesota	47.076	P010022502	Education and Human Resources	—	1,485
Education and Human Resources Total				1,190,163	8,685,434
National Science Foundation	47.078	Direct	Polar Programs	93,657	651,413
National Science Foundation	47.079	Direct	Office of International Science and Engineering	—	107,541
Johns Hopkins University	47.079	2005191988	Office of International Science and Engineering	—	51,700
Princeton University	47.079	2201990	Office of International Science and Engineering	—	22,414
Office of International Science and Engineering Total				—	181,655
National Science Foundation	47.083	Direct	Office of International Science and Engineering	—	750,415
Columbia University	47.083	2040613	Office of International Science and Engineering	—	548
Rutgers University	47.083	2069	Office of International Science and Engineering	—	9,391
Office of International Science and Engineering Total				—	760,354
National Science Foundation	47.084	Direct	NSF Technology, Innovation, and Partnerships	95	282,064
Canetia Analytics Inc	47.084	2151388	NSF Technology, Innovation, and Partnerships	—	38,197
NSF Technology, Innovation, and Partnerships Total				95	320,261
National Science Foundation	47.RD	Direct	National Science Foundation Contracts	—	422,517
Meedan	47.RD	49100421C0035	National Science Foundation Contracts	—	51,452
National Science Foundation Contracts Total				—	473,969
National Science Foundation Total				3,124,761	59,610,704
Nuclear Regulatory Commission: U.S. Nuclear Regulatory Commission	77.008	Direct	U.S. Nuclear Regulatory Commission Scholarship and Fellowship Program	—	256,917
Nuclear Regulatory Commission Total				—	256,917
Office of Personnel Management National Reconnaissance Office	27.011	Direct	Intergovernmental Personnel Act (IPA) Mobility Program	—	101,787
Office of Personnel Management Total				—	101,787
Small Business Administration: Small Business Administration	59.037	Direct	Small Business Development Centers	1,148,189	2,077,210
Small Business Administration Total				1,148,189	2,077,210
Social Security Administration: U.S. Social Security Administration	96.008	Direct	Social Security – Work Incentives Planning and Assistance Program	—	218,931
Social Security Administration Total				—	218,931
Research and Development Cluster Total				52,946,007	461,642,872

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Student Financial Assistance Cluster:					
Department of Education:					
U.S. Department of Education	84.007	SEOG	Federal Supplemental Educational Opportunity Grants	\$ —	3,359,060
U.S. Department of Education	84.033	Federal Work Study	Federal Work-Study Program	—	5,964,299
U.S. Department of Education	84.038	Direct	Federal Perkins Loan Program	—	10,503,142
U.S. Department of Education	84.063	Pell Grants	Federal Pell Grant Program	—	80,219,551
U.S. Department of Education	84.268	Direct	Federal Direct Student Loans	—	316,413,250
U.S. Department of Education	84.379	TEACH Grants	Teacher Education Assistance for College and Higher Education Grants (TEACH Grants)	—	162,671
Department of Education Total				—	416,621,973
Department of Health and Human Services:					
U.S. Department of Health and Human Services	93.264	Direct	Nurse Faculty Loan Program (NFLP)	—	5,962,051
U.S. Department of Health and Human Services	93.264	Direct	Nurse Faculty Loan Program – ARRA	—	21,506
Nurse Faculty Loan Program – ARRA Total				—	5,983,557
U.S. Department of Health and Human Services	93.342	Direct	Health Professional Primary Care Loans	—	1,009,155
U.S. Department of Health and Human Services	93.342	Direct	Loans for Disadvantaged Students	—	411,587
Loans for Disadvantaged Students Total				—	1,420,742
U.S. Department of Health and Human Services	93.364	Direct	Nursing Student Loans	—	28,972
Department of Health and Human Services Total				—	7,433,271
Student Financial Assistance Cluster Total				—	424,055,244
Other Programs:					
Department of Agriculture:					
MA Dept of Transitional Assistance	10.561	016553-00002	State Administrative Matching Grants for the Supplemental Nutrition Assistance Program	25,609	865,433
MA Dept of Transitional Assistance	10.561	ISA_WEL44003064UMS18A	State Administrative Matching Grants for the Supplemental Nutrition Assistance Program	—	86,258
MA Dept of Transitional Assistance	10.561	17273-00002	State Administrative Matching Grants for the Supplemental Nutrition Assistance Program	11,293	1,907,399
MassHire Brockton Workforce Board	10.561	FY 23 SNAP (DTA EXP) Q1	State Administrative Matching Grants for the Supplemental Nutrition Assistance Program	—	8,528
MassHire Brockton Workforce Board	10.561	FY22 MHGBWB SNAP (DTA WPP Expansion)	State Administrative Matching Grants for the Supplemental Nutrition Assistance Program	—	24,106
State Administrative Matching Grants for the Supplemental Nutrition Assistance Program Total				36,902	2,891,724
SNAP Cluster Total				36,902	2,891,724
Department of Agriculture Total				36,902	2,891,724
Department of Commerce:					
Economic Development Administration	11.307	Direct	Economic Adjustment Assistance	—	239,111
U.S. Department of Commerce	11.307	Direct	Economic Adjustment Assistance	1,557,260	2,253,203
Economic Adjustment Assistance Total				1,557,260	2,492,314
Economic Development Cluster Total				1,557,260	2,492,314
Department of Commerce Total				1,557,260	2,492,314
Department of Education:					
MA Dept of Elementary and Secondary ED	84.027	Direct	Special Education-Grants to States	—	(987)
Special Education Cluster (IDEA) Total				—	(987)
U.S. Department of Education	84.042	Direct	TRIO Student Support Services	—	1,266,450
U.S. Department of Education	84.044	Direct	TRIO-Talent Search	—	394,696
U.S. Department of Education	84.047	Direct	TRIO-Upward Bound	139,675	1,526,015
U.S. Department of Education	84.217	Direct	TRIO-McNair Post-Baccalaureate Achievement	—	308,942
TRIO Cluster Total				139,675	3,496,103
Department of Education Total				139,675	3,495,116

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Department of Health and Human Services: Administration for Children and Families	93.575	Direct	Child Care and Development Block Grant	\$ —	641
U.S. Dept Of Health And Human Services Child Trends	93.575	Direct Subaward 17273.UMB.01	Child Care and Development Block Grant Child Care and Development Block Grant	— —	17,420 1,712
CCDF Cluster Total				—	19,773
U.S. Dept of Health and Human Services Community Development Institute	93.600	Direct SUB 004	Head Start	2,189,379	7,179,064
Community Development Institute	93.600	SUB 005	Department of Health and Human Services Contracts	—	782
U.S. Dept of Health and Human Services	93.U01	140D0420C0087	Department of Health and Human Services Contracts	—	2,418,311
Head Cluster Start Total				2,189,379	13,060,716
Department of Health and Human Services Total				2,189,379	13,080,489
Department of Housing and Urban Development: City of Springfield	14.218	20220617	Community Development Block Grants/Entitlement Grants	—	626
City of Springfield	14.218	20230263	Community Development Block Grants/Entitlement Grants	—	9,435
Community Development Block Grants/Entitlement Grants Total				—	10,061
CDBG – Entitlement Grant Cluster Total				—	10,061
Department of Housing and Urban Development Total				—	10,061
Department of Labor: MassHire Brockton Workforce Board	17.207	10SCC10	Employment Service/Wagner-Peyser Funded Activities	—	352,864
MassHire Brockton Workforce Board	17.801	10SCC10	Jobs for Veterans State Grants	—	32,706
MassHire Brockton Workforce Board	17.207	Wagner Peyser	Employment Service/Wagner-Peyser Funded Activities	—	(25,420)
Employment Service Cluster Total				—	360,150
MassHire Brockton Workforce Board	17.258	1027	WIOA Adult Program	—	535,747
MassHire Brockton Workforce Board	17.278	1027	WIOA Dislocated Worker formula Grants	—	481,545
MassHire Brockton Workforce Board	17.278	10SCC10	WIOA Dislocated Worker formula Grants	—	600
WIOA Cluster Total				—	1,017,892
Department of Labor Total				—	1,378,042
Department of Transportation: Federal Motor Carrier Safety Admin	20.237	Direct	Motor Carrier Safety Assistance High Priority Activities Grants and Cooperative Agreements	—	397,709
Morgan State University	20.237	MSUMassD240993	Motor Carrier Safety Assistance High Priority Activities Grants and Cooperative Agreements	—	33,930
Federal Motor Carrier Safety Assistance Cluster Total				—	431,639
Commonwealth of Massachusetts MA Department of Transportation	20.205	INTF00X02021A0113774	Highway Planning and Construction	—	51,334
MA Department of Transportation	20.205	114775	Highway Planning and Construction	—	76,069
MA Department of Transportation	20.205	693JJ22140000Z49EMA00JT021 016304-00002	Highway Planning and Construction	21,152	198,815
MA Department of Transportation	20.205	Award 35032	Highway Planning and Construction	—	16,904
MA Department of Transportation	20.205	INTF002020A0110354	Highway Planning and Construction	—	(757)
MA Department of Transportation	20.205	INTF00X02015A0081923	Highway Planning and Construction	—	35,132
MA Department of Transportation	20.205	INTF00X02019A0106343	Highway Planning and Construction	—	18,407
MA Department of Transportation	20.205	INTF00X02020A0110352 15477-00002	Highway Planning and Construction	—	664
MA Department of Transportation	20.205	INTF00X02020A0114069	Highway Planning and Construction	—	110,648
MA Department of Transportation	20.205	INTF00X02021A00114201	Highway Planning and Construction	—	30,940
MA Department of Transportation	20.205	INTF00X02021A0113772	Highway Planning and Construction	33,356	60,246
MA Department of Transportation	20.205	INTF00X02021A0113773	Highway Planning and Construction	—	49,335
MA Department of Transportation	20.205	INTF00X02021A0113776	Highway Planning and Construction	35,000	50,310
MA Department of Transportation	20.205	INTF00X02021A0114071	Highway Planning and Construction	—	116,963
MA Department of Transportation	20.205	INTF00X02021A0114217	Highway Planning and Construction	—	47,065
MA Department of Transportation	20.205	INTF00X02022114557	Highway Planning and Construction	—	141,818
MA Department of Transportation	20.205	INTF00X02022H0115287	Highway Planning and Construction	58,520	104,424
MA Department of Transportation	20.205	INTF00X0202A0110556	Highway Planning and Construction	—	19,952

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
MA Department of Transportation	20.205	INTFOOX02020H0109131	Highway Planning and Construction	\$ 29,277	47,108
MA Department of Transportation	20.205	SPR-SPR-A-018-X00	Highway Planning and Construction	—	295,199
MA Department of Transportation	20.205	119609	Highway Planning and Construction	—	84,411
Highway Planning and Construction Total				<u>177,305</u>	<u>1,554,987</u>
Highway Planning and Construction Cluster Total				<u>177,305</u>	<u>1,554,987</u>
MA Exec ofC of Public Safety and Security	20.616	CTEPSFFY21UMASSSBSUR	National Priority Safety Programs	—	(92)
MA Exec ofC of Public Safety and Security	20.616	CTEPSFFY22UMASSSBSUR	National Priority Safety Programs	—	51,600
MA Exec ofC of Public Safety and Security	20.616	CTEPSUMASSOP2305XXXX	National Priority Safety Programs	—	125,773
MA Exec ofC of Public Safety and Security	20.616	CTEPSUMASSTR2213XXXX 16962	National Priority Safety Programs	—	48,046
MA Exec ofC of Public Safety and Security	20.616	CTEPSUMASSTR2302XXXX	National Priority Safety Programs	—	135,816
National Priority Safety Programs Total				<u>—</u>	<u>361,143</u>
Highway Safety Cluster Total				<u>—</u>	<u>361,143</u>
Department of Transportation Total				<u>177,305</u>	<u>2,347,769</u>
Agency for International Development: FHI 360	98.001	PO21000690	USAID foreign Assistance for Programs Overseas	—	(1,964)
USAID foreign Assistance for Programs Overseas Total				<u>—</u>	<u>(1,964)</u>
Agency for International Development Total				<u>—</u>	<u>(1,964)</u>
Department of Agriculture: U.S. Department of Agriculture	10.500	Direct	Cooperative Extension Service	—	(227)
NATL Institute of Food and Agriculture U.S. Department of Agriculture	10.511	Direct	Smith-Lever Funding (Various Programs)	75,300	1,789,642
U.S. Department of Agriculture	10.511	Direct	Smith-Lever Funding (Various Programs)	—	10,940
Smith-Lever Funding (Various Programs) Total				<u>75,300</u>	<u>1,800,582</u>
NATL Institute of Food and Agriculture U.S. Department of Agriculture	10.514	Direct	Expanded Food and Nutrition Education Program	—	813,283
U.S. Department of Agriculture	10.514	Direct	Expanded Food and Nutrition Education Program	—	(243)
Expanded Food and Nutrition Education Program Total				<u>—</u>	<u>813,040</u>
Natl Institute Of Food And Agriculture U.S. Department of Agriculture	10.515	Direct	Renewable Resources Extension Act	—	12,972
U.S. Department of Agriculture	10.U01	FY22 MA AG	Miscellaneous Department of Agriculture	—	17,359
U.S. Department of Agriculture	10.U02	FY23 MA AG Mediation Program /25-001-00413167352	Miscellaneous Department of Agriculture	—	40,198
Miscellaneous Department of Agriculture Total				<u>—</u>	<u>57,557</u>
Department of Agriculture Total				<u>75,300</u>	<u>2,683,924</u>
Department of Commerce: NE Reg Assoc of Coastal Ocean Observ Sys	11.012	N21A013014/N21A013015	Integrated Ocean Observing System (IOOS)	—	239,355
Department of Commerce Total				<u>—</u>	<u>239,355</u>
Department of Defense: U.S. Army Research Office	12.U01	Direct	Part-time Intergovernmental Personnel Act (IPA) Assignment with US Army Corps of	—	75,320
U.S. Department of Defense	12.617	Direct	Economic Adjustment Assistance for State Governments	—	(4)
National Security Agency	12.903	Direct	GenCyber Grants Program	—	105,028
Department of Defense Total				<u>—</u>	<u>180,344</u>
Department of Education MA Dept of Elementary and Secondary ED	84.002	119-1521	Adult Education – Basic Grants to States	—	416,893
MassHire Brockton Workforce Board	84.002	35967715020231255	Adult Education – Basic Grants to States	—	83,019
Adult Education – Basic Grants to States Total				<u>—</u>	<u>499,912</u>



**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
U.S. Department of Education	84.031	Direct	Higher Education-Institutional Aid	\$ —	(1,029)
U.S. Department of Education	84.031	Direct	Asian American and Native American Pacific Islander-Serving Institutions (AANAAPISI) Program	—	707,786
				—	706,757
U.S. Department of Education	84.116	Direct	Fund for the Improvement of Postsecondary Education	—	109,562
U.S. Department of Education	84.116	A009744603	National Center for College Students with Disabilities	—	33,158
				—	142,720
Nebraska Department Of Education	84.126	1745132	Rehabilitation Services-Vocational Rehabilitation Grants to States	—	29,797
New Hampshire Department Of Education	84.126	H126A230042-23A	Vocational Rehabilitation State Grants	—	51,555
State Of Maine	84.126	20220531*3141	Rehabilitation Services-Vocational Rehabilitation Grants to States	—	36,011
				—	117,363
Special Olympics, Inc.	84.128	00000003251	Rehabilitation Services-Service Projects	—	(226,629)
U.S. Department of Education	84.129	Direct	Rehabilitation Long-Term Training	—	500,799
U.S. Department of Education	84.184	Direct	School Safely National Activities	—	71,621
U.S. Department of Education	84.263	Direct	Rehabilitation Training – Experimental and Innovative Training	—	890,941
U.S. Department of Education	84.327	Direct	Special Education-Technology and Media Services for Individuals with Disabilities	118,171	391,791
U.S. Department of Education	84.365	Direct	National Professional Development Program	—	258,700
Special Olympics, Inc.	84.380	Project Unify Year 14	Direct Appropriation: Special Olympics (Annual)	—	391,571
U.S. Department of Education	84.382	Direct	Strengthening Minority-Serving Institutions	—	34,579
U.S. Department of Education	84.407B	Direct	Coordinating Center for Transition and Postsecondary Programs for Students with Intellectual Disabilities	—	2,293,384
MA Rehabilitation Commission	84.421	MRCNXTGENCAUMS22A	Pathways To Careers Using Partnerships, Apprenticeships and Equity	—	218,078
Nebraska Department of Education	84.421	42231	Pathways To Careers Using Partnerships, Apprenticeships and Equity	—	78,636
Mn Dept Of Employment And Economic Dev	84.421	MN-DEED-H421D220014	Disability Innovation Fund (DIF)	—	150,729
Nebraska Department Of Education	84.421	1745132	Disability Innovation Fund (DIF)	—	276,850
VA Dept Aging Rehabilitative Services	84.421	A262-100309	Pathways To Careers Using Partnerships, Apprenticeships and Equity	—	311,507
				118,171	5,642,557
MA Dept of Elementary and Secondary Ed	84.424	CTDOE2183UMASSDONAHUEARPE	Student Support and Academic Enrichment Program	—	236,723
U.S. Department of Education	84.425E	Direct	COVID-19 Education Stabilization Fund Under the CARES Act/P425E202019	—	688,889
U.S. Department of Education	84.425E	Direct	COVID-19 CARES Act HEERF Student Aid Portion/P425E201509	—	70,984
U.S. Department of Education	84.425E	Direct	COVID-19 CARES Act HEERF Student Aid Portion/P425E202028	—	2,025,795
U.S. Department of Education	84.425F	Direct	COVID-19 Education Stabilization Fund Under the CARES Act/P425F202529	—	687,604
U.S. Department of Education	84.425F	Direct	COVID-19 CARES Act HEERF Institutional Portion/P425F202093	—	95,866
U.S. Department of Education	84.425F	Direct	COVID-19 CARES Act HEERF Institutional Portion/P425F202565	—	1,959,093
U.S. Department of Education	84.425M	Direct	COVID-19 CARES Act HEERF SIP/P425M200693	—	1,139,792
COVID-19 HEERF Total				—	6,668,023
Department of Education Total				118,171	14,014,055
Department of Health and Human Services:					
U.S. Dept of Health and Human Services:	93.048	Direct	Special Programs for the Aging-Title IV-and Title II-Discretionary Projects	—	268,001
MA Dept of Developmental Services	93.072	90LRLI0022-01-00	Lifespan Respite Care Program	—	(29,787)
MA Dept of Developmental Services	93.072	CT_22UMSMEDRESPGRANT002	Lifespan Respite Care Program	—	104,139
MA Department of Mental Health	93.104	SCDMH8210180H6990/ N/A	Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances (SED)	—	89,217
MA Department of Mental Health	93.104	SCDMH821022085310000	Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances (SED)	—	100,207
Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances (SED) Total				—	189,424
Boston Children's Hospital	93.110	GENFD0002054589	Maternal and Child Health Federal Consolidated Programs	—	63
Health Resources Service Administration	93.178	Direct	Nursing Workforce Diversity	—	225
Baystate Medical Center, Inc.	93.243	FED703-16273-P	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	—	19,861
MA Department of Mental Health	93.243	ISADMH321023HT2UMASS	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	—	17,185

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
Executive Office of The Trial Court	93.243	H79TI081925	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	\$ —	111,399
Executive Office of The Trial Court	93.243	1 H79 TI080277	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	—	111,090
Executive Office of The Trial Court	93.243	H79TI081069	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	—	75,399
Executive Office of The Trial Court	93.243	H79TI082942	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	—	49,153
Substance Abuse and Mental Health Services-Projects of Regional and National Significance Total				—	384,087
MA Department of Public Health	93.283	INTF411H23SPRF61061	Centers for Disease Control and Prevention-Investigations and Technical Assistance	—	5,646
MA Department of Public Health	93.323	INTF5264HH2500224024	Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)	65,944	(4,562)
U.S. Dept of Health and Human Services	93.355	Direct	Public Health Informatics and Technology Workforce Development Program (The PHIT Workforce Development Program)	29,008	619,191
Administration for Community Living	93.433	Direct	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	—	430,036
Langston University	93.433	LU 519942-1	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	—	5,451
Langston University	93.433	90RTEM0009-01-00	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	—	101,192
ACL National Institute on Disability, Independent Living, and Rehabilitation Research Total				—	536,679
Administration for Community Living	93.464	Direct	ACL Assistive Technology	234,316	455,977
Boston Public Health Commission	93.495	FY22023682	COVID-19 Community Health Workers for Public Health Response and Resilient	88,312	204,807
AZ Developmental Disabilities Advisory Council	93.630	ADDP-FFY22-VOCRHB-00B1	Developmental Disabilities Basic Support and Advocacy Grants	—	60,784
Florida Development Disabilities Council	93.630	1052TRS21D	Developmental Disabilities Basic Support and Advocacy Grants	14,549	49,513
Florida Development Disabilities Council	93.630	1066TRS22E	Developmental Disabilities Basic Support and Advocacy Grants	—	46,933
Florida Development Disabilities Council	93.630	1054EM21J	Developmental Disabilities Basic Support and Advocacy Grants	—	20,080
Florida Development Disabilities Council	93.630	2001FLCSDD-01	Developmental Disabilities Basic Support and Advocacy Grants	—	(2,354)
Florida Development Disabilities Council	93.630	2001FLSCDD-01	Developmental Disabilities Basic Support and Advocacy Grants	—	163
MA Developmental Disabilities	93.630	21.GR.1.4.1.B	Developmental Disabilities Basic Support and Advocacy Grants	—	19,449
MA Developmental Disabilities Council	93.630	20.GR.1.4.1.B	Developmental Disabilities Basic Support and Advocacy Grants	—	(1,300)
Texas Council Developmental Disabilities	93.630	20135	Developmental Disabilities Basic Support and Advocacy Grants	179,009	292,279
Developmental Disabilities Basic Support and Advocacy Grants Total				193,558	485,547
Administration for Community Living	93.631	Direct	Developmental Disabilities Projects of National Significance	262,877	1,018,111
U.S. Dept of Health and Human Services	93.631	Direct	Developmental Disabilities Projects of National Significance	—	(6)
Community Transportation Assn of America	93.631	387171-UMB-01 / 90DNTC0001	Developmental Disabilities Projects of National Significance	—	53,200
Community Transportation Association of America	93.631	387172-UMB-01	Developmental Disabilities Projects of National Significance	—	66,770
Developmental Disabilities Projects of National Significance Total				262,877	1,138,075
Administration for Community Living	93.632	Direct	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	20,367	35,263
Boston Children's Hospital	93.632	GENFD0002212315	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	7,500	418,962
Boston Children's Hospital	93.632	PO#GENFD0002025166	COVID-19 University Centers for Excellence in Developmental Disabilities Education, Research, and Service	—	11,356
Boston Children's Hospital	93.632	PO#GENFD0002047708	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	2,500	(1,923)
University Centers for Excellence in Developmental Disabilities Education, Research, and Service Total				30,367	463,658
Tufts University	93.732	DHS002	Mental and Behavioral Health Education and Training Grants	—	14,416
University of Tennessee	93.847	A22-1361-S002	Diabetes, Digestive, and Kidney Diseases Extramural Research	—	20,383
Boston Children's Hospital	94.877	GENFD0002201663	Autism Collaboration, Accountability, Research, Education, and Support	—	42,499
MA Department of Public Health	93.918	INTF4944MM3181926039	Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	—	1,032,682
MA Department of Public Health	93.959	#4512-9069	Block Grants for Prevention and Treatment of Substance Abuse	—	403,842
MA Department of Public Health	93.994	Direct	Maternal and Child Health Services Block Grant to the States	—	36,148
MA Department of Public Health	93.994	MA DPH/Mass Start FY22	Maternal and Child Health Services Block Grant to the States	—	(145)
Maternal and Child Health Services Block Grant to the States Total				—	36,003
MA Department of Public Health	93.U01	MEDISERVICESORGM2M00014	Department of Health and Human Services Contracts	23,814	48,165

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
City of Worcester	93.U02	33-1406W	Department of Health and Human Services Contracts	\$ —	62,004
Department of Health and Human Services Contracts Total				23,814	110,169
Department of Health and Human Services Total				928,196	6,481,164
Department of Homeland Security:					
MA Emergency Management Agency	97.036	MEMA/FEMA-4496-DR-MA-March 27,2020 COVID-19	Disaster Grants – Public Assistance (Presidentially Declared Disasters)	—	10,721,377
Protect The Force	97.067	Subaward dated 10/22/18	Homeland Security Grant Program	—	11,274
Department of Homeland Security Total				—	10,732,651
Department of Housing and Urban Development:					
MassHire Brockton Workforce Board	14.881	MHGBWB DHCD FY20-21	Moving to Work Demonstration Program	—	83,082
Department of Housing and Urban Development Total				—	83,082
Department of Justice:					
National Institute of Justice	16.560	Direct	National Institute of Justice Research, Evaluation, and Development Project Grants	140,991	141,088
MA Office for Victim Assistance	16.575	VOC2023UMAS000000	Crime Victim Assistance	—	423,291
MA Office for Victim Assistance	16.575	MOVA-VOCA/ FY2021-22VOCAVWA	Crime Victim Assistance	—	(285)
Crime Victim Assistance Total				—	423,006
MA Dept of Public Health, BSAS	16.585	MA DPH/TREAT Initiative/INTF2400H78500224472	Treatment Court Discretionary Grant Program	—	111,381
Executive Office Of The Trial Court	16.585	2020-AR-BX-0038	Treatment Court Discretionary Grant Program	—	87,322
Treatment Court Discretionary Grant Program Total				—	198,703
Executive Office Of The Trial Court	16.588	ISA TRC 9100 090122UMS23A	Violence Against Women Formula Grants	—	32,491
Department of Justice Total				140,991	795,288
Department of Labor:					
MassHire Brockton Workforce Board	17.225	10SCC10	Unemployment Insurance	—	340,915
MassHire Brockton Workforce Board	17.225	CY 21 MHGBWB RESEA	Unemployment Insurance	—	10,514
MassHire Brockton Workforce Board	17.225	DUA Staffing	Unemployment Insurance	—	(605)
Unemployment Insurance Total				—	350,824
MassHire Brockton Workforce Board	17.245	1027	Trade Adjustment Assistance	—	34,264
MassHire Brockton Workforce Board	17.245	10SCC10	Trade Adjustment Assistance	—	(25,961)
MassHire Brockton Workforce Board	17.245	FY 20 MHGBWB Trade	Trade Adjustment Assistance	—	62,767
Trade Adjustment AssistanceTotal				—	71,070
MassHire Brockton Workforce Board	17.277	COVID-19 NDWG-004	WIOA National Dislocated Worker Grants / WIA National Emergency Grants	—	75,127
Jobs for the Future, Inc.	17.285	21-297	Apprenticeship USA Grants	—	53,472
Department of Labor Total				—	550,493
Department of State:					
U.S. Department of State	19.009	Direct	Academic Exchange Programs – Undergraduate Programs	—	610,498
International Research and Exchanges Board	19.009	FY22-YALI-AEI-UMA-01	Academic Exchange Programs – Undergraduate Programs	—	78,265
Meridian International Center	19.009	A82-03	Academic Exchange Programs – Undergraduate Programs	—	75,124
Meridian International Center	19.009	SECAGD19CA0074	Academic Exchange Programs – Undergraduate Programs	—	177,025
Meridian International Center	19.009	A215-1	Academic Exchange Programs – Undergraduate Programs	—	45,627
Academic Exchange Programs – Undergraduate Programs Total				—	986,539
U.S. Department of State	19.040	Direct	Public Diplomacy Programs	81,000	493,433
U.S. Department of State	19.400	Direct	Academic Exchange Programs – Graduate Students	44,646	422,444
University Of Montana	19.401	PG23-6B010-05	Academic Exchange Programs – Scholars	—	132,117
Fulbright Commission Argentina	19.402	Direct	Professional and Cultural Exchange Programs – International Visitor Leadership Program	—	42,821
Fulbright Commission Argentina	19.402	ARG 2020	Professional and Cultural Exchange Programs – International Visitor Leadership Program	—	(2,184)

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Expenditures of Federal Awards  
Year ended June 30, 2023

Federal grantor/federal subdivision or pass-through grantor cluster title	Assistance listing number	Federal agency or pass-through number	Program title	Amounts passed through to subrecipient	Total expenditures
International Research and Exchanges Board	19.408	FY22-FTEA-UML-01	Academic Exchange Programs – Teachers	\$ —	(43)
Assoc of Univ Centers On Disabilities	19.415	Direct	Professional and Cultural Exchange Programs – Citizen Exchanges	—	77,161
FHI 360	19.421	S-ECAGD-15-CA-1130	Academic Exchange Programs – English Language Programs	—	(357)
U.S. Department of State	19.501	Direct	Public Diplomacy Programs for Afghanistan and Pakistan	—	17,702
Department of State Total				<u>125,646</u>	<u>1,183,094</u>
Department of the Interior:					
National Park Service	15.945	Direct	Cooperative Research and Training Programs Resources of the National Park System	—	19,315
U.S. Department of Interior	15.954	Direct	National Park Service Conservation, Protection, Outreach, and Education	—	43,527
Department of the Interior Total				<u>—</u>	<u>62,842</u>
Department of the Treasury:					
Masshire Brockton Workforce Board	21.027	1030	Coronavirus State And Local Fiscal Recovery Funds	—	40,029
State Of Maine	21.027	20220531*3141	Coronavirus State And Local Fiscal Recovery Funds	—	81,723
Department of the Treasury Total				<u>—</u>	<u>121,752</u>
Environmental Protection Agency:					
U.S. Environmental Protection Agency	66.456	Direct	National Estuary Program	345,651	661,444
U.S. Environmental Protection Agency	66.608	Direct	Environmental Information Exchange Network Grant Program and Related Assistance	—	29,458
Environmental Protection Agency Total				<u>345,651</u>	<u>690,902</u>
National Aeronautics and Space Administration:					
Massachusetts Institute Of Technology	43.008	802504	Office of Stem Engagement (OSTEM)	—	11,481
Massachusetts Institute Of Technology	43.008	859631	Office of Stem Engagement (OSTEM)	—	34,288
Office of Stem Engagement (OSTEM) Total				<u>—</u>	<u>45,769</u>
National Aero And Space Administration	43.012	Direct	Space Technology	—	64,026
National Aeronautics and Space Administration Total				<u>—</u>	<u>109,795</u>
National Endowment for the Arts:					
National Endowment for The Arts	45.024	Direct	Promotion of the Arts-Grants to Organizations and Individuals	—	15,244
National Endowment for the Arts Total				<u>—</u>	<u>15,244</u>
National Endowment for the Humanities:					
National Endowment for The Humanities	45.160	Direct	Promotion of the Humanities-Fellowships and Stipends	—	35,716
National Endowment for The Humanities	45.161	Direct	Promotion of the Humanities-Research	—	69,541
National Endowment for The Humanities	45.162	Direct	Promotion of the Humanities-Teaching and Learning Resources and Curriculum Development	—	16,979
National Endowment for The Humanities	45.164	Direct	Promotion of the Humanities-Public Programs	—	3,993
National Endowment for the Humanities Total				<u>—</u>	<u>126,229</u>
Small Business Administration:					
Small Business Administration	59.037	Direct/SBAHQ20C0033-3	Small Business Development Centers	—	397,277
Small Business Administration Total				<u>—</u>	<u>397,277</u>
Other Programs Total				<u>5,834,476</u>	<u>65,147,581</u>
Total Expenditures of Federal Awards				<u>\$ 58,780,483</u>	<u>950,845,697</u>

See accompanying independent auditors' report.

## UNIVERSITY OF MASSACHUSETTS

### Notes to the Schedule of Expenditures of Federal Awards

June 30, 2023

#### **(1) Basis of Presentation**

The accompanying schedule of expenditures of federal awards (the Schedule) includes the federal award activity of the University of Massachusetts (the University) under programs of the federal government for the year ended June 30, 2023, with the exception of the University of Massachusetts Global (UMG), which issues a separate audit report in accordance with Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance). Federal award activity, if any, of UMG, the University of Massachusetts Amherst Foundation, the Worcester City Campus Corporation, the University of Massachusetts Foundation, Inc. and the University of Massachusetts Dartmouth Foundation, Inc., are not included. The information in the Schedule is presented in accordance with the requirements of Uniform Guidance. Because the Schedule presents only a selected portion of the operations of the University, it is not intended to and does not present the net position, changes in net position, or cash flows of the University.

#### **(2) Summary of Significant Accounting Policies**

Expenditures reported on the Schedule are reported on the accrual basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement. Negative amounts shown on the Schedule represent adjustments or credits made in the normal course of business to amounts reported as expenditures in prior years.

The University applies its predetermined approved facilities and administrative costs to federal awards rather than the 10 percent de minimus cost rate as described in Section 200.414 of the Uniform Guidance. Rates are negotiated with and approved by the University's cognizant audit agency, the U.S. Department of Health and Human Services.

**THE UNIVERSITY OF MASSACHUSETTS**

Notes to the Schedule of Expenditures of Federal Awards

June 30, 2023

**(3) Federal Student Financial Assistance**

**(a) Student Loan Programs**

The Perkins Loans, Primary Care Loans, Loans for Disadvantaged Students, Nurse Faculty Loan Program and the Nursing Student Loans are administered directly by the University and balances and transactions are included in the University's financial statements. The amount of each loan reported on the schedule of expenditures of federal awards includes the beginning outstanding loan balance, the current year loaned amount, and the administrative charge. Loan activities and balances consist of the following:

	<b>Federal Assistance Listing Number</b>		<b>Loans issued</b>	<b>Balance as of June 30, 2023</b>
Perkins Loan Program	84.038	\$	—	7,340,591
Health Professions Student Loans	93.342		169,170	903,649
Loans for Disadvantaged Students	93.342		10,000	403,377
Nursing Faculty Loans	93.264		446,144	5,425,762
Nursing Student Loans	93.264		—	27,786
		\$	<u>625,314</u>	<u>14,101,165</u>

**(b) Federal Direct Student Loans**

The University is responsible only for the performance of certain administrative duties relating to Federal Direct Student Loans and, accordingly, these loans are not included in the University's financial statements. Federally guaranteed loans distributed to students of the University through the Federal Direct Student Loans Program during the year ended June 30, 2023 are summarized as follows:

	<b>Federal Assistance Listing Number</b>		<b>Loans distributed</b>
Federal Direct Student Loans (FDL)	84.268	\$	262,171,802
FDL Parent Loans for Undergraduate Students (PLUS)	84.268		<u>54,241,448</u>
Total Federal Direct Student Loans		\$	<u>316,413,250</u>





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## **Independent Auditors' Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With *Government Auditing Standards***

The Board of Trustees  
University of Massachusetts:

We have audited, in accordance with the 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, the financial statements of the business-type activities and the aggregate discretely presented component units of the University of Massachusetts (the University), as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the University's basic financial statements, and have issued our report thereon dated December 12, 2023.

The financial statements of the University of Massachusetts Foundation Inc. were not audited in accordance with *Government Auditing Standards*, and accordingly, this report does not include reporting on internal control over financial reporting or instances of reportable noncompliance associated with this entity.

### **Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the University's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we do not express an opinion on the effectiveness of University's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

### **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the University's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.



### **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

KPMG LLP

Boston, Massachusetts  
December 12, 2023



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**Independent Auditors' Report on Compliance for Each Major Federal Program; Report on Internal Control Over Compliance; and Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance**

Board of Trustees of the  
University of Massachusetts

**Report on Compliance for Each Major Federal Program**

*Opinion on Each Major Federal Program*

We have audited the University of Massachusetts' (the University) compliance with the types of compliance requirements identified as subject to audit in the *OMB Compliance Supplement* that could have a direct and material effect on each of the University's major federal programs for the year ended June 30, 2023. The University's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

In our opinion, the University complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2023.

*Basis for Opinion on Each Major Federal Program*

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America (GAAS); the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Our responsibilities under those standards and the Uniform Guidance are further described in the Auditors' Responsibilities for the Audit of Compliance section of our report.

We are required to be independent of the University and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on compliance for each major federal program. Our audit does not provide a legal determination of the University's compliance with the compliance requirements referred to above.

*Other Matter – Federal Expenditures Not Included in the Compliance Audit*

The University's financial statements include the operations of the University of Massachusetts Global (UMG), which expended federal awards which is not included in the University's schedule of expenditures of federal awards during the year ended June 30, 2023. Our compliance audit, described in the Opinion on Each Major Federal Program section of our report does not include the operations of UMG because UMG separately engaged auditors to perform an audit of compliance.

*Responsibilities of Management for Compliance*

Management is responsible for compliance with the requirements referred to above and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules and provisions of contracts or grant agreements applicable to the University's federal programs.



### *Auditors' Responsibilities for the Audit of Compliance*

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the University's compliance based on our audit. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS, *Government Auditing Standards*, and the Uniform Guidance will always detect material noncompliance when it exists. The risk of not detecting material noncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Noncompliance with the compliance requirements referred to above is considered material if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgment made by a reasonable user of the report on compliance about the University's compliance with the requirements of each major federal program as a whole.

In performing an audit in accordance with GAAS, *Government Auditing Standards*, and the Uniform Guidance, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material noncompliance, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the University's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- Obtain an understanding of the University's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control over compliance. Accordingly, no such opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.

### **Report on Internal Control Over Compliance**

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the Auditors' Responsibilities for the Audit of Compliance section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above. However, material weaknesses or significant deficiencies in internal control over compliance may exist that were not identified.



Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

### **Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance**

We have audited the business-type activities and aggregate discreetly presented component units of the University as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise the University's basic financial statements. We have issued our report thereon dated December 12, 2023, which contained unmodified opinions on those financial statements. Our audit was performed for the purpose of forming opinions on the financial statements that collectively comprise the basic financial statements. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the basic financial statements. Such 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. The 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 GAAS. In our opinion, the schedule of expenditures of federal awards is fairly stated in all material respects in relation to the basic financial statements as a whole.

*KPMG LLP*

Boston, Massachusetts  
March 11, 2024

**UNIVERSITY OF MASSACHUSETTS**  
Schedule of Findings and Questioned Costs  
June 30, 2023

**(1) Summary of Auditors' Results**

- (a) Type of report issued on whether the financial statements were prepared in accordance with generally accepted accounting principles: **Unmodified**
- (b) Internal control deficiencies over financial reporting disclosed by the audit of the financial statements:
  - Material weaknesses: **No**
  - Significant deficiencies: **None reported**
- (c) Noncompliance material to the financial statements: **No**
- (d) Internal control deficiencies over major programs disclosed by the audit:
  - Material weaknesses: **No**
  - Significant deficiencies: **None reported**
- (e) Type of report issued on compliance for major programs: **Unmodified**
- (f) Audit findings that are required to be reported in accordance with 2 CFR 200.516(a): **No**
- (g) Major programs:
  - Student Financial Assistance Cluster: **various AL numbers**
  - Head Start Cluster: **various AL numbers**
  - TRIO Cluster: **various AL numbers**
  - Education Stabilization Fund (HEERF): **AL numbers 84.425E, 84.425F, 84.425M**
  - Disaster Grants-Public Assistance (Presidentially Declared Disasters): **AL number 97.036**
- (h) Dollar threshold used to distinguish between Type A and Type B programs: **\$3,000,000**
- (i) Auditee qualified as a low-risk auditee: **Yes**

**(2) Findings Relating to the Financial Statements Reported in Accordance with *Government Auditing Standards***

None

**(3) Findings and Questioned Costs Relating to Federal Awards**

None