



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, 2022

(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, 2022

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University Administration

As of November 2022

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Letter from the President

Dear Friends,

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.

Over the last two plus years, we have continued to adapt to pressing challenges that the COVID-19 pandemic created. In fiscal year 2022, we experienced a return to relatively normal operations and the transition of students back to our campuses.

Despite the challenging economic environment of the last few years, we have maintained strong enrollment of over 74,000 students and graduated the Class of 2022 with roughly 18,000 students earning degrees. Our research portfolio rose to a record \$752 million — behind only Harvard and MIT in the state — with research concentrated in areas critical to the Commonwealth's innovation economy. UMass was also recognized as the number one public university in New England by Times Higher Education.

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.

We have continued to focus on affordability and accessibility of our programs. During fiscal year 2022, we froze tuition for in-state students and increased institutional financial aid available to students while maintaining the outstanding academic quality that ensures student success.

These efforts have distinguished UMass as a well-managed university, and external evaluators have taken notice. This past March, Moody's reaffirmed the University's Aa2 credit rating with a stable outlook, citing 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



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

Independent Auditors' Report

Board of Trustees of the
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, 2022 and 2021, and the related notes to the financial statements, which collectively comprise the University's basic financial statements for the years then ended 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, 2022 and 2021, 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 Matters

Reporting Entity

As discussed in Note 1, the financial statements of the University are intended to present the financial position, the 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, 2022 and 2021, 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.

Adoption of New Accounting Pronouncements

As discussed in note 1, in 2022, the University adopted Governmental Accounting Standards Board (GASB) Statement No. 87, *Leases*, and GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. 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 15, 2022 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 15, 2022



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Management's Discussion and Analysis (unaudited)

June 30, 2022

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, 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 the "highest research activity". Major areas of emphasis include climate science, food science, alternative energy, nano manufacturing, polymer science, computer science and linguistics. Consistently rated as a "Top Producer of Fulbright Students," UMass Amherst is ranked 26th among the nation's top public schools in the 2022 *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 136 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 2022 Massachusetts first-time bar passage rate was 82%, the fourth highest passage rate of the Massachusetts law schools.

UMass Lowell is ranked 87th among the nation's top public schools within the 2022 *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 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, 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 will also streamline 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 designed to provide reasonable assurance regarding the 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 has made consistent improvement in its financial management in a number of areas.

- Identifying and assessing systemwide risk mitigation strategies focused on University's Top 10 risks;
- Developing and evaluating multi-year financial forecasts to guide policy and programmatic decisions;
- 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;
- Tracking student enrollment data in real time to quickly observe trends that may impact campus projections;
- Implementing and tracking creative, high-impact cost containment strategies across its campuses, including expanding the University's shared services initiative;

- Building out UM-Plan, the University's budgeting application, to utilize tool's built-in best practices to develop more accurate projections and scenario planning;
- Addressing deferred maintenance by developing targets and utilizing dashboards to track progress;
- Creating a reserve policy to mitigate unforeseen events, advance University priorities, and maintain strong credit ratings;
- Tracking several key financial ratios: operating margin, operating cash flow margin, debt service and financial leverage ratios, to evaluate the University's fiscal health and performance against peer institutions; and
- Monitoring available cash and short-term investments available to support daily operations: operating liquidity.

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.

COVID-19 Response

The University engaged all four quadrants of the accountability framework in FY2022, FY2021 and FY2020 to ensure the University could evaluate real-world impacts, forecast potential impacts, and withstand the harsh financial reality the COVID-19 pandemic created. Activities included:

- Leveraging the University system-wide Enterprise Risk Management program to coordinate COVID-19 response and mitigation activities across the University system, including actively tracking and sharing data, facilitating access to testing and personal protective equipment, sharing near real-time information on COVID-19 updates and requirements placed on higher education, and facilitating information-sharing to support bringing full student populations back on our campuses (*Risk Management, Transparency*);
- Conducting sensitivity analysis to account for the various revenue and expense impacts related to the implementation of COVID-19 response and mitigation plans (*Oversight*);
- Adding a new metric, operating liquidity, to the suite of key financial ratios tracked regularly (*Oversight, Transparency*);
- Developing a cash-flow forecasting model, with flexibility to forecast based on varying scenarios (*Internal Controls, Oversight, Transparency*);
- Restructuring cash management planning, including executing a line of credit in May 2021 and renewing line of credit in May 2022 (*Internal Controls, Oversight, Transparency*);
- Increasing level of proactive resource demand management, contract re-negotiation and sourcing efforts to limit cost exposures to the campuses (*Risk Management, Oversight*); and
- With guidance from the Advisory Working Group on Financial Planning, developing and launching a new dashboard using real-time information to provide campuses access to key financial information on academic programs and assist them in their planning (*Oversight, Transparency*).



Shared Services Initiatives

At a time of financial challenge for public higher education, the University must continuously push itself to find more efficient ways of doing business. In that spirit, in 2019 President Meehan called for the development and implementation of a shared services model of delivering administration and finance services to the campuses. The resulting plan, developed by a team of subject matter experts that included representatives from each campus, delineated the application of a shared services model for accounts payable and procurement. This effort also laid the foundation for the exploration of future efficiencies.

To implement this plan, the University formally kicked off its Unified Procurement Services Team (UPST) in January 2020, led by a new University Chief Procurement Officer. 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 2022, the UPST has achieved \$87.1 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 five times the target savings of \$16.5 million and 5 times the return on investment to date of \$16.1 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 is a system-wide effort to automate and integrate travel and expense technology, drive UMass-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 began its second shared service initiative in FY2022 with a focus on payroll services. The University has created a roadmap, identified campus priorities, and drafted a preliminary design of future

processes. To deliver on these initiatives, the UMPO Employee Services Team (EST) was established in October 2021, and a system-wide payroll director was hired. The EST will be working in FY2023 to improve delivery of system-wide employee services including payroll services, HR application management, and customer service.

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 Government 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, 2022 and 2021, 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 17 to the accompanying financial statements depicts the designations of unrestricted net position at June 30, 2022 and 2021, 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. The purpose of these statements is to present the sources of cash coming into the University, how that cash was expended, and the change in the total cash balance during the year.

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 University of Massachusetts Building Authority (Building Authority), Worcester City Campus Corporation and Subsidiary (WCCC), the University of Massachusetts Global (UMG), the University of Massachusetts Medical School Foundation, the University of Massachusetts Amherst Foundation and the University of Massachusetts Lowell Applied Research Corporation (UMLARC). The individual financial statements of the Building Authority can be obtained by contacting the Building Authority directly: www.umassba.net. The individual financial statements of UMG can be obtained on www.guidestar.org.

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. The individual financial statements of each foundation can be obtained by contacting the foundations directly: www.umassfoundation.org for UMF and giving@umassd.edu for UMDF.

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, 2022, 2021 and 2020 were \$915.0 million, \$1.1 billion and \$923.7 million, 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 holds a significant portion of the UMDF

investments. The total investments of UMDF at June 30, 2022, 2021 and 2020 were \$61.6 million, \$76.1 million and \$57.8 million, respectively, of which \$61.2 million, \$74.4 million and \$56.0 million is invested with UMF, 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 \$72.3 million and \$27.1 million and 14.7 million in FY2022, FY2021 and FY2020, respectively. An additional \$70.4 million, \$54.9 million and \$13.9 million was used to recover a portion of lost revenue and additional financial aid to students in FY2022, FY2021 and FY2020, respectively. The remaining unspent funds are expected to be used, and corresponding revenue recognized, in FY2023.

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, provides 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 90 undergraduate, graduate (including two professional doctoral programs), credential, certificate, and non-degree credit programs in the fields of education, arts and sciences,

business and professional studies, and nursing. These programs are offered through fully online and hybrid (online and face-to-face) modalities at the UMG campus in Irvine, California and at 24 satellite campuses located in California and Washington (including six United States military bases).

Selected financial highlights for the fiscal year ended June 30, 2022 include:

- Postemployment benefit expenses related to GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (GASB 75) and GASB 68, *Accounting and Reporting for Pensions* (GASB 68) have a significant impact on the operating margin results. 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 FY2022 income before other revenues, expenses, gains, and losses was \$187.6 million for FY2022, including a gain of \$107.5M from GASB 68 and GASB 75. Excluding the impact of these GASB standards the University's income before other revenues, expenses, gains, and losses was a \$80.1 million.
- From FY2021 to FY2022, the University's operating revenues increased by \$418.0 million, largely due to auxiliary services returning to normal operations during FY2022. Operating expenses increased by \$221.7 million primarily driven by the return of campus operations to prepandemic levels. Non-operating revenues increased \$37.7 million primarily attributed to continued funding received under HEERF

and an increase in state appropriations. As a result, the University's net position increased \$160.8 million from \$2.6 billion in FY2021 to \$2.7 billion in FY2022.

- During FY2022, the University adopted the requirements of GASB 87 effective July 1, 2021 and has applied the provisions of this standard to the beginning of the earliest comparative period presented on the financial statements. As a result of recording lease assets and related lease liabilities as well as lease receivables and related deferred inflows of resources, the beginning net position in fiscal year 2021 was reduced by \$1.9 million.

Net Position

Condensed schedules of net position for the University at June 30, 2022, 2021, and 2020, respectively, are presented in **Figure 2**.

Assets totaled \$8.8 billion, \$8.3 billion, and \$7.6 billion at June 30, 2022, 2021, and 2020, respectively. These balances are primarily driven by capital assets net of accumulated depreciation, which remain stable in the three years presented.

Liabilities totaled \$5.4 billion, \$5.7 billion and \$5.4 billion at June 30, 2022, 2021, and 2020, respectively. The majority of the University's long-term liabilities in all three years are long-term debt and pension and OPEB liabilities.

Net position represents the difference between total assets and total liabilities, and in addition to capital, includes cash,

FIGURE 2 – Condensed Schedule of Net Position

As of June 30, 2022, 2021, and 2020 (\$ in thousands)

Net position	2022	2021	2020*
Assets			
Current assets	\$ 1,347,213	\$ 1,172,142	\$ 1,156,836
Noncurrent assets – Capital assets, net	5,527,062	5,435,274	5,206,569
Noncurrent assets – All other noncurrent assets	1,975,000	1,712,544	1,225,544
Total assets	8,849,275	8,319,960	7,588,949
Deferred outflows of resources	433,998	551,553	531,271
Liabilities			
Current liabilities	783,441	740,806	680,069
Noncurrent liabilities	4,666,224	4,946,592	4,750,458
Total liabilities	5,449,665	5,687,398	5,430,527
Deferred inflows of resources	1,085,656	596,953	256,926
Net position			
Net investment in capital assets	2,281,471	2,307,233	2,376,333
Restricted – Nonexpendable	22,515	22,378	22,252
Restricted – Expendable	262,669	232,833	223,803
Unrestricted	181,297	24,718	(189,621)
Total net position	\$ 2,747,952	\$ 2,587,162	\$ 2,432,767

* Does not reflect adoption of GASB-87

liquid investments, as well as non-cash items and illiquid investments. Total net position was \$2.7 billion, \$2.6 billion and \$2.4 billion at June 30, 2022, 2021 and 2020, respectively. The largest component of net assets for the University remains the net investment in capital assets which held steady between \$2.3–\$2.4 billion for the three years presented.

Unrestricted net position increased in both FY2022 and FY2021 due to operating cost reductions, unfilled staffing and faculty positions, and increased non-operating revenues from pandemic related federal funding received under HEERF. In FY2022, auxiliary operations returned to normal offsetting some of the losses experienced during FY2021 and FY2020. FY2020

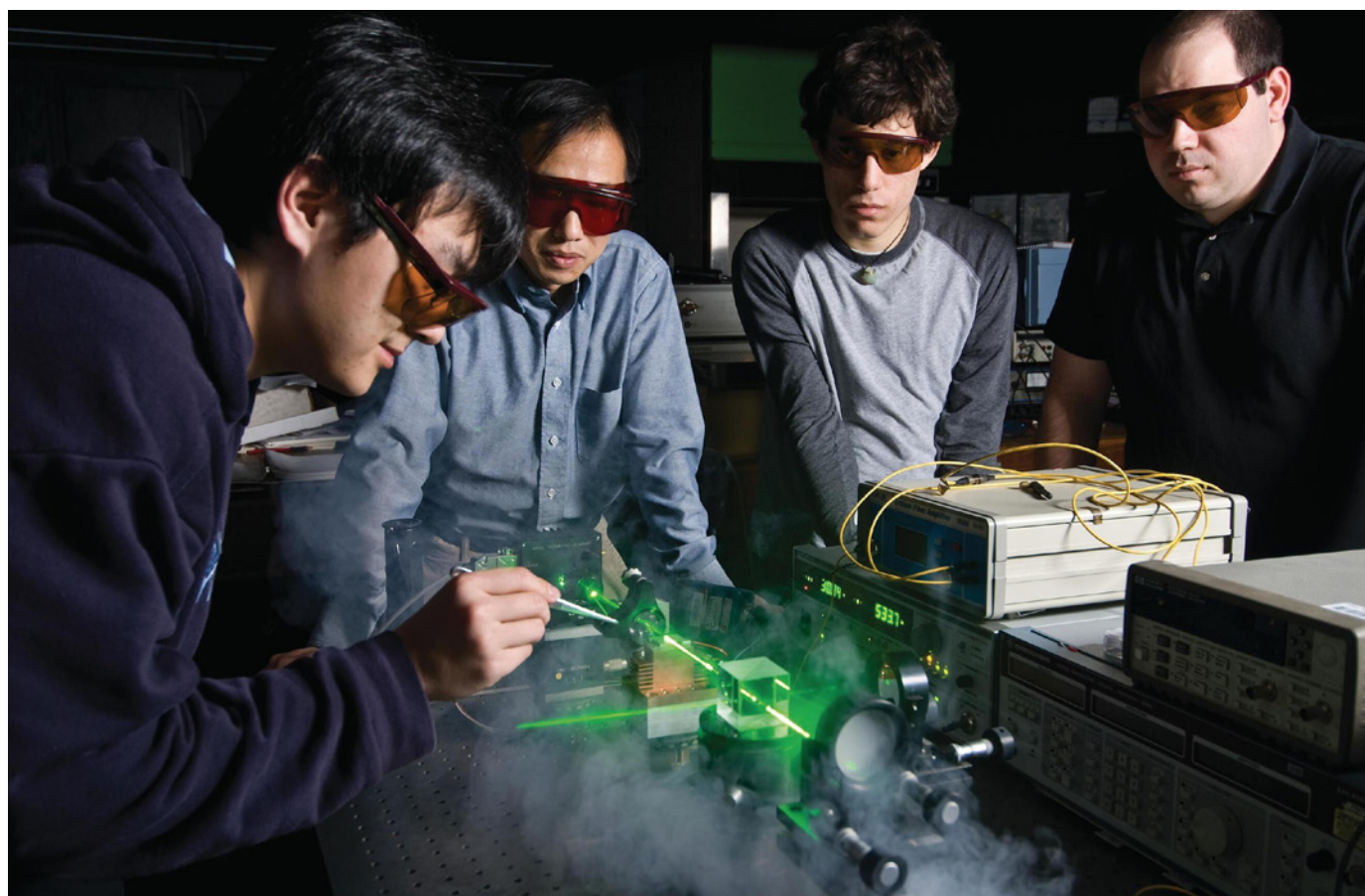
had a negative unrestricted net position, due to large employee postemployment benefits (pension and OPEB) liabilities totaling \$1.3 billion.

As of June 30, 2022, the University's endowment, held at UMF, experienced a decrease of \$165.0 million from \$1.1 billion in FY2021 to \$915.0 million in FY2022. The reduction is the result of a period of economic downturn after a year of historic returns experienced in FY2021. In FY2021, the University rebalanced its portfolio and currently splits its portfolio between long and short term horizons. **Figure 3** shows the liquidation and rebalancing of the University's investments from FY2020 to FY2022.

FIGURE 3 – Investment Liquidation and Rebalancing

As of June 30, 2022, 2021, and 2020 (\$ in thousands)

Investment	2022	%	2021	%	2020	%
Short-term investments	\$ 787,356	43%	\$ 639,162	35%	\$ 620,771	45%
Long-term investments	1,052,299	57%	1,163,888	65%	748,689	55%
Total investments	\$ 1,839,655	100%	\$ 1,803,050	100%	\$ 1,369,460	100%



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, 2022, 2021, and 2020, are presented in **Figure 4**.

FIGURE 4 – Condensed Schedules of Revenues, Expenses, and Changes in Net Position

For the years ended June 30, 2022, 2021, and 2020 (\$ in thousands)

Revenue and expense	2022	2021	2020*
Operating revenues			
Tuition and fees, net of scholarships	\$ 1,007,124	\$ 930,613	\$ 917,876
Grants and contracts	719,479	667,149	581,850
Auxiliary enterprises	434,129	163,821	378,314
Other operating revenues	560,561	541,720	547,990
Total operating revenues	2,721,293	2,303,303	2,426,030
Operating expenses	3,601,764	3,380,022	3,437,442
Operating loss	(880,471)	(1,076,719)	(1,011,412)
Nonoperating revenues (expenses)			
Federal appropriations	5,588	5,953	6,774
State appropriations	880,003	845,481	810,518
Interest expense	(117,244)	(109,144)	(109,186)
Nonoperating federal grants	221,628	173,592	115,601
Other nonoperating income	78,061	114,412	99,753
Total nonoperating revenues (expenses)	1,068,036	1,030,294	923,460
Income (loss) before other revenues, expenses,			
Gains and losses	187,565	(46,425)	(87,952)
Other revenues, expenses, gains and losses			
Capital appropriations, grants and other sources	95,908	71,120	59,041
Endowment return, net of amount used for operations	(148,089)	148,514	(2,917)
Other additions (deductions)	25,406	(16,869)	(7,787)
Total other revenues, expenses, gains, and losses	(26,775)	202,765	48,337
Total increase (decrease) in net position	160,790	156,340	(39,615)
Net position			
Effect on beginning net position due to GASB-87 restatement	-	(1,945)	-
Net position at the beginning of the year, as restated	2,587,162	2,432,767	2,472,382
Net position at the end of the year	\$ 2,747,952	\$ 2,587,162	\$ 2,432,767

*Does not reflect adoption of GASB-87

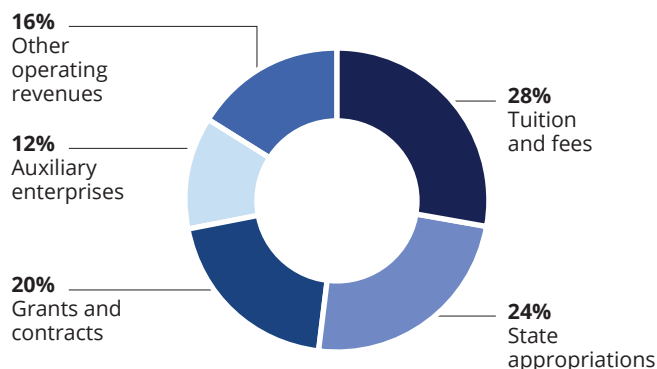
Operating Revenues and Expenses

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 \$452.5 million to \$3.6 billion in FY2022, primarily due to auxiliary revenues returning to normal operations, increases in grants and contracts, and the addition of UMG's tuition and fee revenues. In FY2021 and FY2020 operating revenues remained essentially flat at approximately \$3.2 billion due to the impact of COVID-19 on operations, primarily on auxiliary revenues in the second half of FY2020 and all of FY2021 which was offset by an increase in grants and contracts and state appropriations from FY2020 to FY2021.

As noted in **Figure 5**, over 50% of the University's FY2022 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 related to providing student with an academic education and combined make up 60% of the University's operating revenue.

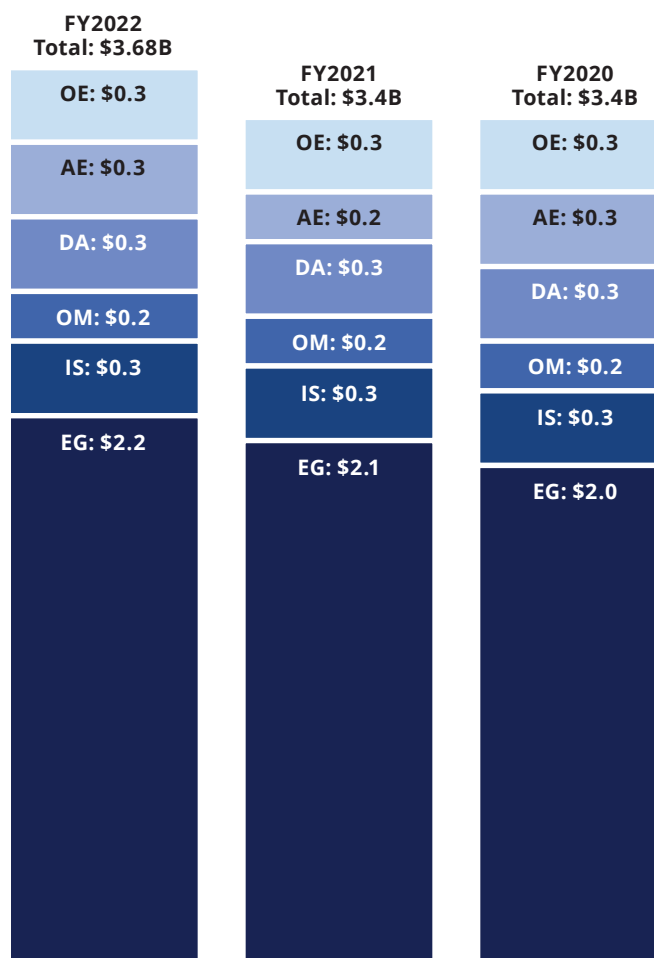
Other operating revenues include revenues generated from CWM programs. These programs provide public consulting and services in health care financing, administration and policy to federal, state and local agencies and not-for-profit health and policy organizations. In addition to CWM activities, other 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 5 – Fiscal Year 2022 Operating Revenues (including State Appropriations)



In FY2022, operating expenses, including depreciation and amortization, totaled \$3.6 billion, as compared to \$3.4 billion in FY2021 and FY2020. Of the FY2022 total, \$2.2 billion or 61.1% was used to support the academic core activities of the University, including \$551.4 million in research. The education and general portion of the three-year operating expenses shown in **Figure 6** represents expenses in the following functional categories: instruction, research, public service, academic support, student services and scholarships and fellowships. Public service activities expense, included in education and general, include payments made to the Commonwealth pursuant to requirements of legislation enacted by the Commonwealth.

FIGURE 6 – Three Year Operating Expenses by Function
(\$ in billions)



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

State Appropriations

In FY2022, state appropriations represented approximately 23% of all revenues. The level of state support is a key factor influencing the University's overall financial condition. Although the 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 7**.

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 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. The University's state appropriations including fringe benefits increased in FY2021 by \$35.0 million from FY2020 primarily due to an increase in reimbursements for costs related to increases in collective bargaining determined by the Commonwealth and the implementation of the Paid Family Medical Leave (PFML) law.

Figure 7 details the state appropriations for the fiscal years ended June 30, 2022, 2021, and 2020.

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 FY2022, FY2021 and FY2020, the capital support provided to the University through appropriations and grants from the Commonwealth was \$87.1 million, \$62.6 million and \$51.5 million, respectively. Beginning in FY2020, the Commonwealth established a strategic framework for approving the allocation of state funding for capital projects across higher education. The new framework 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 \$719.5 million, \$667.1 million and \$581.9 million at June 30, 2022, 2021 and 2020. **Figure 8** details the University's grant and contract revenues by source for the year ended June 30, 2022.

FIGURE 8 – Grant and Contract Revenue FY2022

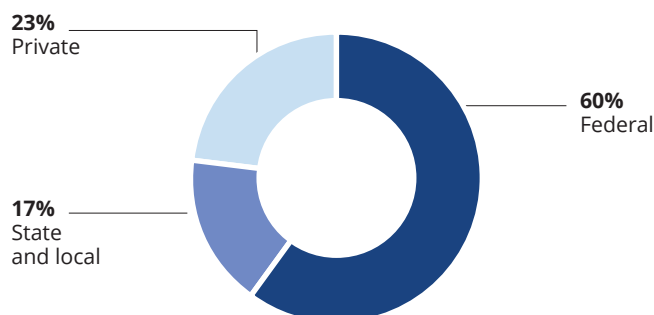


FIGURE 7 – State Appropriations

For the years ended June 30, 2022, 2021, and 2020 (\$ in thousands)

Appropriation	2022	2021	2020
State appropriations	\$ 618,245	\$ 569,081	\$ 567,612
Plus: fringe benefits	261,758	276,400	242,906
Commonwealth support	\$ 880,003	\$ 845,481	\$ 810,518

Tuition and Fees

Effective for academic year 2022–2023, in-state undergraduate tuition was raised an average of 2.5%, consistent with prepandemic trends. This follows two years of frozen tuition for in-state undergraduate programs. Due to affordability considerations and impacts of the COVID-19 pandemic, in-state undergraduate tuition was frozen for the academic years 2020–2021 and 2021–2022. This resulted in a reduction of \$43.4 million in recurring revenue due to freezing tuition during the COVID-19 period, \$29.1 million in academic year 2021–2022 and \$14.3 million in academic year 2020–2021. 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 9**, total enrollment in the fall of 2021 was 64,786 FTE (74,554 headcount students), a decrease of 1.9% over the fall of 2020 enrollment of 66,070 FTE (75,065 headcount students). Enrollment in the fall of 2019 was 66,010 FTE (75,065 headcount students). Although the University experienced a minor decline in the five-year enrollment of .02% from the fall of 2017 – fall of 2021, 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 non-resident students, and is reflective of the quality of the 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. For the fall semester, Massachusetts residents accounted for 82.7% of the University's total undergraduate enrollment in fall 2021 and 83.4% in fall 2020, as shown in **Figure 10**.

FIGURE 10 – Fall 2021 Undergraduate Enrollment by Type

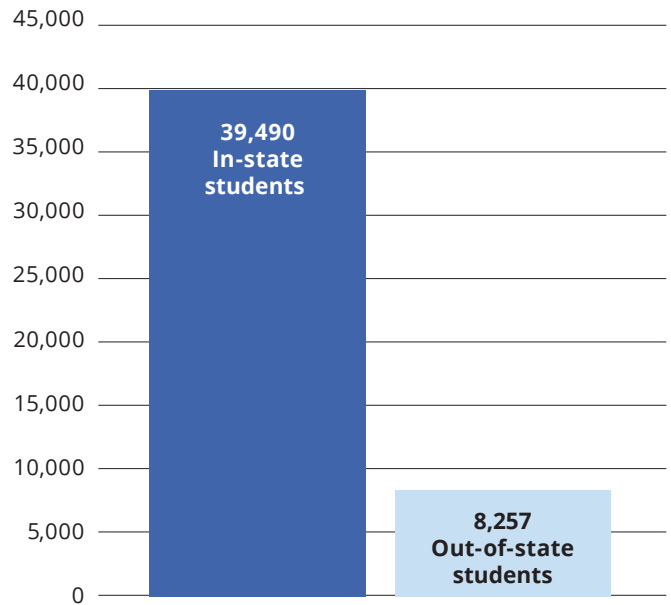
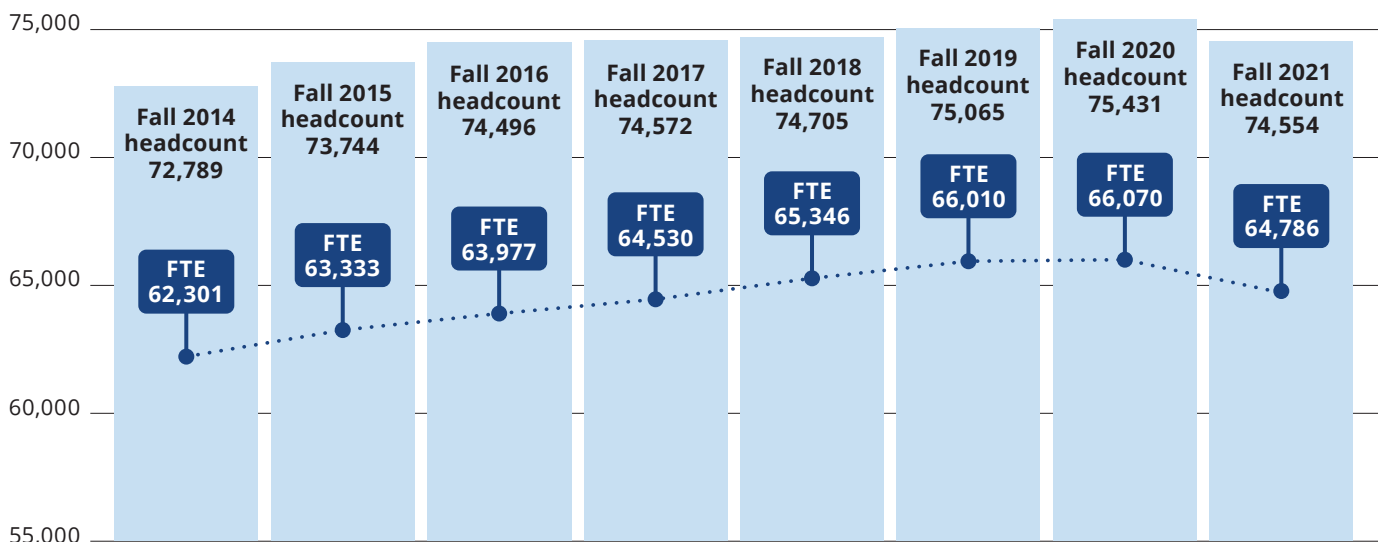


FIGURE 9 – Total Enrollment



Investments Held by UMF

As of June 30, 2022, the University's investments, held at UMF, were reduced by \$165.0 from \$1.1 billion to \$914.8 million. The change in investment value is due to investments losses of \$131.1 million (13.5% annualized return), distributions under the approved spending rule of \$34.9 million, offset by contributions of \$1.0 million. This reduction follows a year of a historic 37.1 percent fiscal year return experienced during FY2021 when the endowment grew by \$156.1 million to \$1.1 billion. Previously, the endowment generated an annualized return of 8.2 percent, 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 -3.7 percent in FY2016 to 37.1 percent in FY2021, underscoring the importance of having a long-term focus.

In FY2020, the University investments held at UMF totaled \$922.0 million and generated a return of 3.3 percent.

Long-Term Debt

Long-term debt (including commercial paper) is the University's largest liability at June 30, 2022, 2021 and 2020. The University had outstanding long-term debt of \$3.7 billion at June 30, 2022, \$3.3 billion at June 30, 2021 and \$3.2 billion at June 30, 2020. 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 FY2022, the University issued \$86.7 million in new commercial paper to finance the New Education and Research Building at the Chan Medical School campus, the Substructure Demolition & Quadrangle Development at the Boston campus, and the Science and Engineering Building at the Dartmouth campus with interest rates from .07% to 1.13%.

On March 29, 2022, the Authority issued \$215.0 million of Project Revenue Bonds, Series 2022-1 and \$211.2 million of federally taxable Project Revenue Bonds, Series 2022-2. The 2022-1 bonds included a premium of \$26.3 million. Part of bond proceeds was used to pay off commercial paper, leaving \$20M commercial paper outstanding as of June 30, 2022.

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 11 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 by Moody's Investor Service, AA by Fitch Ratings, and AA- by Standard and Poor's Global Rating.

During FY2022, all three ratings agencies 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 line of credit agreements 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 lines of credit had a maturity date of May 10, 2022.

During FY2022, the University amended the line of credit agreement with Bank of America for a maximum loan amount of \$150.0 million and allowed the State Street Bank line of credit to expire. The line of credit has a maturity date of May 1, 2023.

As of June 30, 2022, the outstanding balance on the line of credit was \$0.

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, 2022, the University does not have any outstanding Commonwealth guaranteed debt.

Capital Plan

A majority of the capital spending during FY2022 and FY2021 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.

Factors Impacting Future Periods

There are a number of issues of University-wide importance that directly impact the financial operations of the University. A key continuing factor that continues to impact the University's financial results is the COVID-19 pandemic. Continuing into FY2023 the University continues to monitor the pandemic's impact on enrollment and auxiliary services.

Other 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 are ongoing activities of continuous importance to the Board and University leadership that impact the financial planning each year. Student enrollment, the level of state support, the impact of collectively bargained wage increases, 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 generalacctg_inquiry@umassp.edu.

Financial Statements

Statements of Net Position

As of June 30, 2022 and 2021 (\$ in thousands). See accompanying notes to the financial statements.

Assets and liabilities	2022	2021
Assets		
Current assets		
Cash and cash equivalents	\$ 121,053	\$ 74,547
Cash held by state treasurer	25,054	22,242
Deposits with bond trustees	11,326	47,075
Accounts receivable, net	336,589	332,324
Lease receivable	16,464	13,561
Short-term investments	787,356	639,162
Other current assets	49,371	43,231
Total current assets	1,347,213	1,172,142
Noncurrent assets		
Cash held by state treasurer	30,177	23,734
Deposits with bond trustees	508,440	186,336
Accounts receivable, net	48,968	44,316
Lease receivable	317,654	277,502
Long-term investments	1,052,299	1,163,888
Other assets	17,462	16,768
Capital assets, net	5,527,062	5,435,274
Total noncurrent assets	7,502,062	7,147,818
Total assets	8,849,275	8,319,960
Deferred outflows of resources	433,998	551,553
Liabilities		
Current liabilities		
Accounts payable and accrued expenses	418,601	422,989
Unearned revenues and advances	126,065	100,044
Lease liability, current portion	15,047	11,322
Long-term debt, current portion	121,662	105,055
Commercial paper notes	20,000	31,000
Other current liabilities	82,066	70,396
Total current liabilities	783,441	740,806
Noncurrent liabilities		
Unearned revenues and advances	73,960	60,559
Lease liability	185,609	189,483
Long-term debt	3,545,711	3,121,427
Net pension liability	276,313	644,879
Net other postemployment benefits liability	485,141	829,808
Other long-term liabilities	99,490	100,436
Total noncurrent liabilities	4,666,224	4,946,592
Total liabilities	5,449,665	5,687,398
Deferred inflows of resources	1,085,656	596,953
Net position		
Net investment in capital assets	2,281,471	2,269,411
Restricted – Nonexpendable	22,515	22,378
Restricted – Expendable	262,669	232,833
Unrestricted	181,297	62,540
Total net position	\$ 2,747,952	\$ 2,587,162

Statements of Revenues, Expenses, and Changes in Net Position

For the years ended June 30, 2022 and 2021 (\$ in thousands). See accompanying notes to the financial statements.

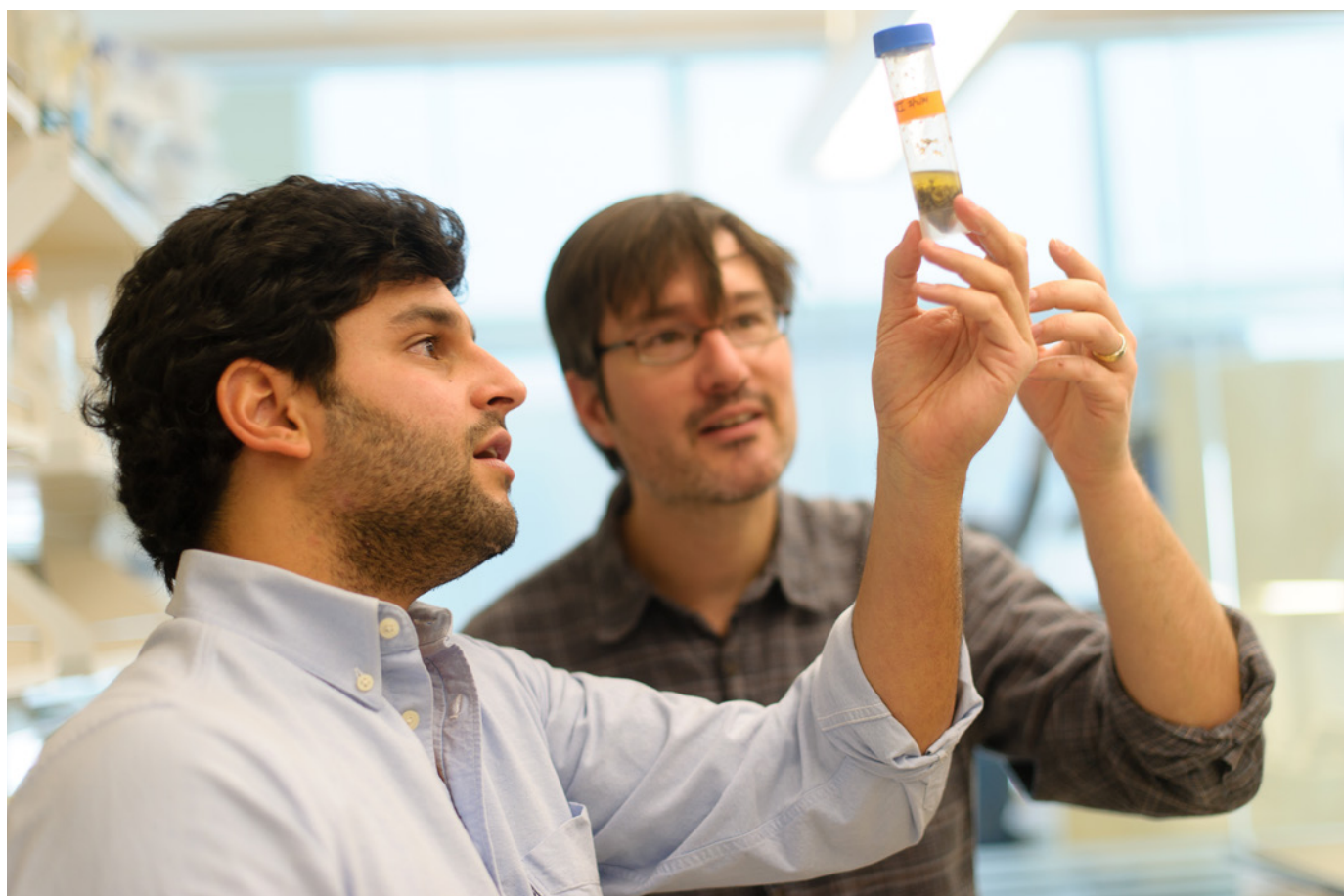
Revenues and expenses	2022	2021
Operating revenues		
Tuition and fees (net of scholarship allowances of \$369,902 at June 30, 2022 and \$345,128 at June 30, 2021)	\$ 1,007,124	\$ 930,613
Grants and contracts	719,479	667,149
Sales and services, educational activities	40,907	30,253
Auxiliary enterprises	434,129	163,821
Other operating revenues:		
Sales and services, independent operations	66,929	50,961
Sales and services, public service activities	321,954	334,567
Other	130,771	125,939
Total operating revenues	2,721,293	2,303,303
Operating expenses		
Educational and general		
Instruction	930,362	934,708
Research	551,367	550,593
Public service	71,649	88,770
Academic support	194,153	199,456
Student services	211,088	141,107
Institutional support	315,810	311,629
Operation and maintenance of capital assets	242,749	221,750
Depreciation and amortization	330,715	318,828
Scholarships and fellowships	121,334	85,500
Auxiliary enterprises	320,535	213,499
Other expenditures:		
Independent operations	58,582	53,485
Public service activities	253,420	260,697
Total operating expenses	3,601,764	3,380,022
Operating loss	(880,471)	(1,076,719)
Nonoperating revenues (expenses)		
Federal appropriations	5,588	5,953
State appropriations	880,003	845,481
Gifts	67,948	41,262
Investment return, net	(24,164)	35,406
Endowment return used for operations	34,944	31,965
Interest expense	(117,244)	(109,144)
Nonoperating federal grants	221,628	173,592
Other nonoperating income (loss)	(667)	5,779
Net nonoperating revenues	1,068,036	1,030,294
Gain/(Loss) before other revenues, expenses, gains, and losses	187,565	(46,425)
Other revenues, expenses, gains and losses		
Capital appropriations	87,062	62,592
Capital grants, contracts and gifts	8,846	8,528
Endowment return, net of amount used for operations	(148,089)	148,514
Other additions (deductions)	25,406	(16,869)
Total other revenues, expenses, gains, and losses	(26,775)	202,765
Total increase in net position	160,790	156,340
Net position at beginning of year, as restated	2,587,162	2,430,822
Net position at end of year	\$ 2,747,952	\$ 2,587,162

Statements of Cash Flows

For the years ended June 30, 2022 and 2021 (\$ in thousands). See accompanying notes to the financial statements.

Cash flow	2022	2021
Cash flows from operating activities		
Tuition and fees	\$ 1,106,745	\$ 1,025,916
Grants and contracts	724,415	650,603
Payments to suppliers	(1,055,007)	(817,593)
Payments to employees	(1,766,320)	(1,595,504)
Payments for benefits	(561,537)	(465,580)
Payments for scholarships and fellowships	(122,685)	(89,267)
Loans issued to students and employees	(10,746)	(6,433)
Collections of loans to students and employees	18,619	15,094
Auxiliary enterprises	434,311	162,954
Sales and services, educational	40,750	30,543
Sales and services, independent operations	66,929	50,961
Sales and services, public service activities	312,617	339,788
Student related fiduciary activities inflows	15,012	9,520
Student related fiduciary activities outflows	(11,583)	(6,692)
Other receipts, net	131,112	115,530
Net cash used for operating activities	(677,368)	(580,160)
Cash flows from noncapital financing activities		
Federal appropriations	5,588	5,953
State appropriations	880,003	845,481
Grants, contracts and gifts for other than capital purposes	73,268	41,377
Nonoperating federal grants	221,628	173,592
Other noncapital financing activities	(816)	-
Net cash provided by noncapital financing activities	1,179,671	1,066,403
Cash flows from capital and other financing activities		
Proceeds from debt issuances	486,620	721,153
Proceeds from premiums received	26,327	71,803
Bond issuance costs paid	(2,423)	(3,992)
Swap termination payments	-	(50,938)
Capital appropriations	87,062	62,592
Capital grants and contracts	3,525	8,413
Proceeds from sales of capital assets	47,586	2,668
Purchases of capital assets and construction	(378,227)	(322,341)
Lease receipts	18,200	13,805
Interest on leases	5,180	3,950
Principal paid on debt and leases	(210,816)	(722,552)
Interest paid on debt and leases	(135,125)	(156,636)
Net cash used for capital financing activities	(52,091)	(372,075)
Cash flows from investing activities		
Proceeds from sales and maturities of investments	1,263,822	1,048,212
Interest on investments	25,990	54,561
Purchases of investments	(1,474,851)	(1,325,603)
Cash received from acquisition of subsidiary	76,943	-
Net cash used for investing activities	(108,096)	(222,830)
Net (decrease) increase in cash and cash equivalents	342,116	(108,662)
Cash and cash equivalents - beginning of the year	353,934	462,596
Cash and cash equivalents - end of the year	696,050	353,934

Cash flow	2022	2021
Reconciliation of operating loss to net cash used for operating activities		
Operating loss	(880,471)	(1,076,719)
Adjustments to reconcile loss to net cash used for operating activities:		
Depreciation and amortization expense	330,715	318,828
Changes in assets and liabilities:		
Accounts receivable, net	4,532	(5,275)
Other assets	(430)	12,659
Accounts payable and accrued expenses	(17,623)	85,044
Unearned revenues and advances	668	6,881
Other liabilities	15,352	8,788
Postemployment benefits liability, net	(107,520)	92,330
Fiduciary transactions	2,366	1,081
Changes in deferred inflows related to future revenues	(24,957)	(23,777)
Net cash used for operating activities	(677,368)	(580,160)
Supplemental disclosure of noncash activities		
Assets acquired and included in accounts payable and other liabilities	41,364	49,478
Assets acquired in exchange for lease obligation	483	-
Loss on disposal of capital assets	(10,845)	(12,083)
Donated assets	241	652



Component Unit Statements of Financial Position

As of June 30, 2022 and 2021 (\$ in thousands). See accompanying notes to the financial statements.

Component units	2022	2021
Assets		
Cash	\$ 2,654	\$ 733
Pledges receivable, net	170,929	26,499
Other receivables	873	3,200
Investments of the Foundations	1,731,288	1,905,099
Prepaid expenses and other assets	6,644	3,718
Land, property, plant and equipment, net	15,213	15,634
Total assets	1,927,601	1,954,883
Liabilities		
Accounts payable and accrued expenses	3,316	821
Deferred revenue	11,845	2,645
Obligations to beneficiaries of split-interest agreements	2,335	2,581
Assets held on behalf of others	935,331	1,108,178
Total liabilities	952,827	1,114,225
Net assets		
Without donor restrictions	52,776	46,521
With donor restrictions	921,998	794,137
Total net assets	974,774	840,658
Total liabilities and net assets	\$ 1,927,601	\$ 1,954,883



Component Unit Statement of Activities

For the years ended June 30, 2022 and 2021 (with summarized financial information for the year ended June 30, 2020) (\$ in thousands).

Component units	Without donor restriction	With donor restriction	Total 2022	Total 2021
Support and revenue				
Gifts, bequests and grants	\$ 4,176	\$ 281,418	\$ 285,594	\$ 19,810
Other contributions	863	10,545	11,408	5,009
Total investment income, including net gains (losses) – net of fees	(148,169)	(140,965)	(289,134)	374,590
Investment management fee	12,528	-	12,528	12,309
Net assets released from restrictions	21,988	(21,988)	-	-
Total support and revenue	(108,614)	129,010	20,396	411,718
Expenses				
Distributions to University	42,894	(230)	42,664	35,265
Program services	5,546	-	5,546	5,786
Fundraising support	4,706	-	4,706	7,094
Administrative and general, Foundation	2,983	1,189	4,172	2,139
Administrative and general, University	1,185	-	1,185	-
Total expenses	57,314	959	58,273	50,284
Excess of support and revenue over expenses	(165,928)	128,051	(37,877)	361,434
Less: Fiscal year activity related to assets held on behalf of University	164,968	-	164,968	(156,127)
Less: Fiscal year activity related to assets held on behalf of Edward M. Kennedy Institute	7,879	-	7,879	(3,965)
Transfers (from) to other funds	(403)	403	-	-
Other	(261)	(593)	(854)	(343)
Change in net assets	6,255	127,861	134,116	200,999
Net assets, beginning of year	46,521	794,137	840,658	639,659
Net assets, end of year	\$ 52,776	\$ 921,998	\$ 974,774	\$ 840,658



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 will deliver expanded online education opportunities to adult learners. For purposes of financial reporting, beginning in fiscal 2022, UMG is now presented as a blended component unit.

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 was formed on June 24, 2020. The purpose of UMLARC is to promote 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 was launched in September of 2021 and 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 was established in 2003 to support private fundraising on behalf of the faculty and students of the Amherst campus. The UMMSF was established in 1991 to support 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 19 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 Commonwealth Medicine (CWM) programs, which provide consulting 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 17 describes these designations in more detail.

Cash and Cash Equivalents

Cash and cash equivalents include cash balances maintained in checking accounts, overnight repurchase agreements and amounts held in permitted money market mutual funds 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 CWM 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 income includes dividends and interest income and is recognized on the accrual basis. In computing 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, 2022 and 2021 was 4%.



Capital Assets

Capital assets (excluding intangible right-to-use lease 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 including capitalized interest, if any. 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 June 2017, the Governmental Accounting Standards Board (GASB) issued GASB Statement No. 87, *Leases*. This standard requires the recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and as inflows of resources or outflows of resources recognized based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right-to-use an underlying asset. Under this standard, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources.

The University adopted GASB 87 effective July 1, 2020, which resulted in adjustment to its previously reported net position as shown in **Table 2** (\$ in thousands):

TABLE 2 – Adjustment to previously reported net position

(\$ in thousands)

Net position	Adjustment
Net position as of July 1, 2020 as previously reported	\$ 2,432,767
Plus implementation of GASB Statement No. 87	(1,945)
Net position as of July 1, 2020, as restated	\$ 2,430,822

In addition to the impact on net position as of July 1, 2020, the adoption of GASB 87 also resulted in immaterial reclassifications to previously reported 2021 amounts including capital assets as well as various other net position balances and corresponding revenues and expenses.

ii) The University adopted GASB Statement 89, *Accounting for Interest Cost Incurred before the End of a Construction Period* as of July 1, 2021. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. Prior to the adoption of GASB 89, during the year ended June 30, 2021, the University capitalized approximately \$7.4 million, net of interest income.

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 lease 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 and subscription payments, (2) lease and subscription term, and (3) lease and subscription 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 Statement of Net Position — Lease assets are reported with capital assets and lease liabilities are reported within current and non-current liabilities in the Statement of Net Position. Lease receivables are reported with current and non-current assets and deferred inflows of resources 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, 2022 and 2021 (\$ in thousands) are presented in **Tables 3** and **4**:

TABLE 3 – Deferred Outflows of Resources

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

Deferred outflow	2022	2021
Debt refunding	\$ 115,519	\$ 125,201
Certain asset retirement obligations	1,159	1,158
Excess consideration provided for acquisition*	45,435	-
Impact of changes in assumptions and investment value:		
Pension liability	115,027	185,335
Other postemployment benefits liability	156,858	239,859
Total deferred outflows of resources	\$ 433,998	\$ 551,553

*Deferred outflow resulting from the acquisition of Brandman University during FY2022. See Note 8 for further detail.

TABLE 4 – Deferred Inflows of Resources

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

Deferred inflow	2022	2021
Future lease revenues	\$ 232,271	\$ 185,502
Sale of future revenues	44,451	54,921
Experience gains for:		
Pension liability	266,206	18,297
Other postemployment benefits liability	542,728	338,233
Total deferred inflows of resources	\$ 1,085,656	\$ 596,953

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 loan liability to the Federal government.

Bond Issuance Costs

The University incurs certain costs associated with bond issuances. For the years ended June 30, 2022 and 2021, bond issuance costs amounted to \$2.4 million and \$4.0 million, respectively, and were expensed in accordance with the provisions of GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities*.

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.

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, 2022 and 2021 was \$173.4 million and \$141.4 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), of which \$253.3 million has been recognized to date. 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 \$72.3 million and \$27.1 million for the years ended June 30, 2022 and 2021, respectively. These funds were recognized as revenue under nonoperating federal grants. An additional, \$70.4 million and \$54.9 million for the years ended June 30, 2022 and 2021, respectively, was used to recover a portion of lost revenue and additional financial aid to students. These funds were also recorded under nonoperating federal grant revenue.

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, 2022 and 2021, 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 future capital projects to be funded from state-appropriated funds totaled \$55.2 million and \$46.0 million at June 30, 2022 and June 30, 2021. 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, 2022 and 2021, deposits with bond trustees are presented in **Table 5** (\$ in thousands):

TABLE 5 – Deposits with Bond Trustees

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

Deposits	2022	2021
Cash	\$ 27,042	\$ 23,904
MMDT	297,003	206,695
Permitted Money Market Accounts	-	2,812
U.S Treasury Securities	195,721	-
Total deposits with bond trustees	\$ 519,766	\$ 233,411

At June 30, 2022, amounts restricted by bond trust agreements for capital projects and other purposes were \$501.5 million and \$18.3 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, 2022 and 2021, the bank balances of uninsured deposits totaled \$8.5 million and \$7.7 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, 2022 and 2021, respectively, are shown in **Tables 6** and **7** (\$ in thousands):

TABLE 6 – Investment Portfolio

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

Investment type	2022	2021
Short-term investments	\$ 787,356	\$ 639,162
Long-term investments	1,052,299	1,163,888
Total	\$ 1,839,655	\$ 1,803,050

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, 2022 and 2021, respectively are summarized in **Table 7** (\$ in thousands):

TABLE 7 – Investment holdings of the University

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

University investment holdings	2022	2021
University managed funds		
Cash and cash equivalents	\$ 54,009	\$ 65,009
Money market and other investments	333,002	332,568
MMDT	262,000	117,000
Fixed income investments	269,203	192,738
Commercial ventures and intellectual property	2,564	5,950
Annuity life income funds	4,041	9,980
Total non-agency funds	924,819	723,245
Foundation agency funds		
Pooled investments – Fund I	777,573	920,212
Pooled investments – Fund II	-	9,419
Short term pool	137,263	150,174
Total Foundation agency funds	914,836	1,079,805
Total investments	\$ 1,839,655	\$ 1,803,050

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

Fund II — represents a portion of the operating cash balances of the University that were transferred to UMF for investment purposes only. This portfolio was previously used by the University as an intermediate term investment vehicle. As part of the University's changing investment strategy, Fund II was liquidated as of June 30, 2022.

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, 2022 and 2021, respectively, are summarized in **Table 8** (\$ in thousands):

TABLE 8 – Investment holdings of the Foundations

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

Fund	2022	2021
Investments of the Foundations		
Cash and cash equivalents	\$ 40,544	\$ 35,055
Money market and other investments	9,195	6,211
Fixed income investments	384	1,579
Pooled investments – Fund I	762,925	778,979
Annuity life income funds	3,404	3,470
Total non-agency funds	816,452	825,294
Foundation agency funds (Detailed in Table 7)	914,836	1,079,805
Total Foundations investments	\$ 1,731,288	\$ 1,905,099

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 \$109.6 million and \$113.0 million, at June 30, 2022 and 2021, respectively.

The University held non-money market investments with a fair market value of \$1.1 billion and \$1.0 billion at June 30, 2022 and 2021, 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, 2022 and 2021, 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 Standard & 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 rated 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 9 – 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
Total debt securities	\$ 48,671	\$ 8,496	\$ 47,183	\$ 75,660	\$ 379	\$ 130,964	\$ 311,353

Table 10 presents the rated debt investments, excluding U.S. Treasury funds, at fair value by credit quality of the University's investment portfolio as of June 30, 2021 (\$ in thousands):

TABLE 10 – S&P Quality Ratings FY2021

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

Debt securities	AAA	AA	A	BBB	BB	Unrated	Total
Government agency bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 869	\$ 869
Asset backed securities	16,130	351	2,211	1,921	-	1,220	21,833
Commercial mortgage-backed securities	14,768	-	-	767	-	2,999	18,534
Government mortgage-backed securities	-	-	-	-	-	11,033	11,033
Non-government backed collateralized mortgage obligations	3,124	365	-	-	-	168	3,657
Corporate bonds	-	1,507	28,490	53,912	615	42	84,566
Municipal and provincial bonds	-	1,424	1,114	379	-	-	2,917
Index linked government bonds	-	-	-	-	-	977	977
Bond funds, including exchange traded funds	-	25	34	1,781	752	112,538	115,130
Total debt securities	\$ 34,022	\$ 3,672	\$ 31,849	\$ 58,760	\$ 1,367	\$ 129,846	\$ 259,516

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 rated debt investments component of the University's investment portfolio by investment maturity as of June 30, 2022 (\$ in thousands):

TABLE 11 – 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
Total debt securities	\$ 34,499	\$ 333,070	\$ 56,874	\$ 10,425	\$ 434,868

Table 12 presents the fair value of the rated debt investments component of the University's investment portfolio by investment maturity as of June 30, 2021 (\$ in thousands):

TABLE 12 – Investment Maturity (in years), FY2021

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

Debt securities	Less than 1	1 to 5	6 to 10	More than 10	Total
U.S. Treasury securities	\$ -	\$ 77,241	\$ 7,314	\$ -	\$ 84,555
Government agency bonds	-	302	567	-	869
Asset backed securities	4,448	14,568	2,817	-	21,833
Commercial mortgage-backed securities	5,304	12,272	958	-	18,534
Government mortgage-backed securities	169	8,824	1,236	804	11,033
Non-government backed collateralized mortgage obligations	932	2,725	-	-	3,657
Corporate bonds	10,269	64,333	9,566	398	84,566
Municipal and provincial bonds	1,137	1,780	-	-	2,917
Index linked government bonds	-	977	-	-	977
Bond funds, including exchange traded funds	-	113,676	1,429	25	115,130
Total debt securities	\$ 22,259	\$ 296,698	\$ 23,887	\$ 1,227	\$ 344,071

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, 2022 and 2021, 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, 2022 (\$ in thousands):

TABLE 13 – 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
Money market funds	\$ -	\$ 424,859	\$ -	\$ -	\$ 424,859
Debt securities					
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
Total debt securities	-	228,677	206,149	42	434,868
Equity securities					
Domestic equities	-	93,934	-	1,635	95,569
International equities	-	29,611	-	-	29,611
Total equity securities	-	123,545	-	1,635	125,180
Alternative investments					
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
Total alternative investments	538,739	-	-	-	538,739
Total investments at fair value	538,739	777,081	206,149	1,677	1,523,646
Cash and cash equivalents	-	-	-	-	54,009
MMDT	-	-	-	-	262,000
Total investments at cost	-	-	-	-	316,009
Total investments	\$ 538,739	\$ 777,081	\$ 206,149	\$ 1,677	\$ 1,839,655

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, 2022 (\$ in thousands):

TABLE 14 – 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	(1)	Not redeemable
Private debt	14,521	9,515	Closed end funds	(1)	Not redeemable
Private real estate	8,021	1,411	Closed end funds	(1)	Not redeemable
Total	\$538,739	\$ 31,117			

(1) 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, 2021 (\$ in thousands):

TABLE 15 – Fair Value Hierarchy of Investments, FY2021

As of June 30, 2021 (\$ 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
Money market funds	\$ -	\$ 621,839	\$ -	\$ -	\$ 621,839
Debt securities					
U.S. Treasury securities	-	84,555	-	-	84,555
Government agency bonds	-	-	869	-	869
Asset backed securities	-	-	21,833	-	21,833
Commercial mortgage-backed securities	-	-	18,534	-	18,534
Government mortgage-backed securities	-	-	11,033	-	11,033
Non-government backed collateralized mortgage obligations	-	-	3,657	-	3,657
Corporate bonds	-	-	84,524	42	84,566
Municipal and provincial bonds	-	-	2,917	-	2,917
Index linked government Bonds	-	-	977	-	977
Bond funds, including exchange traded funds	-	115,130	-	-	115,130
Total debt securities	-	199,685	144,344	42	344,071
Equity securities					
Domestic equities	-	117,864	-	1,635	119,499
International equities	-	27,914	-	-	27,914
Total equity securities	-	145,778	-	1,635	147,413
Alternative investments					
Multi-strategy hedge funds					
Equity	219,855	-	-	-	219,855
Long/short	144,898	-	-	-	144,898
Fixed income	31,261	-	-	-	31,261
Absolute return	15,115	-	-	-	15,115
Real assets	7,405	-	-	-	7,405
Private equity and venture capital	63,243	-	-	-	63,243
Private debt	16,017	-	-	-	16,017
Private real estate	7,355	-	-	-	7,355
Total alternative investments	505,149	-	-	-	505,149
Total investments at fair value	505,149	967,302	144,344	1,677	1,618,472
Cash and cash equivalents	-	-	-	-	67,578
MMDT	-	-	-	-	117,000
Total investments at cost	-	-	-	-	184,578
Total investments	\$ 505,149	\$ 967,302	\$ 144,344	\$ 1,677	\$ 1,803,050

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, 2021 (\$ in thousands):

TABLE 16 – Alternative Investments, FY2021

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

Alternative investments	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Multi-strategy hedge funds					
Equity	\$ 219,855	\$ -	Daily to quarterly	1–90 days	Lock-up provisions range from none to 2 years.
Long/short	144,898	-	Quarterly to annual	45–90 days	Lock-up provisions range from none to 3 years.
Fixed income	31,261	-	Quarterly to semi-annual	60–90 days	Lock-up provisions range from none to 1 year.
Absolute return	15,115	-	Quarterly to annual	45–65 days	No lock-up restrictions
Real assets	7,405	-	Annual	90 days	No lock-up restrictions
Private equity and venture capital	63,243	12,460	Closed end funds	(1)	Not redeemable
Private debt	16,017	10,125	Closed end funds	(1)	Not redeemable
Private real estate	7,355	1,475	Closed end funds	(1)	Not redeemable
Total	\$ 505,149	\$ 24,060			

(1) 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, 2022 and 2021 are presented in **Table 17** (\$ in thousands):

TABLE 17 – Accounts Receivable, Net

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

Accounts receivable	2022	2021
Student tuition and fees	\$ 68,216	\$ 60,329
Student loans	26,731	36,014
Pledges	50,458	30,718
Grants and contracts	129,634	116,980
CWM program	75,374	65,269
UMass Memorial	9,791	17,028
Other	57,239	85,770
Total	417,443	412,108
Less: allowance for doubtful accounts and discount to present value for pledges	(31,886)	(34,513)
Accounts receivable, net	\$ 385,557	\$ 377,595

6. UMass Memorial Medical Center

In 1998, the University entered into an Amended and Restated Definitive Agreement (Definitive Agreement) with certain unaffiliated parties 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, for the remainder of the agreement term provided the University continues to operate a medical school. For the years ending June 30, 2022 and 2021, the inflation adjusted income recognized totaled approximately \$20.4 million and \$19.9 million and was recorded as other operating revenue in the accompanying financial statements.

Other provisions of the Definitive agreement include the University being reimbursed by, and reimbursing UMass Memorial, for shared services, cross-funded employees, and other agreed upon activities provided and purchased. For the years ended June 30, 2022 and 2021, the reimbursements received for services provided to UMass Memorial and recorded as other revenue were \$174.8 million and \$161.6 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 \$109.9 million and \$100.3 million for the years ended June 30, 2022 and 2021, respectively.

As of June 30, 2022 and 2021, the University has recorded a receivable in the amount of \$9.8 million and \$17.0 million, respectively from UMass Memorial which includes \$1.7 million and \$10.0 million, respectively, in payroll and related fringe charges. The University has recorded a payable of \$4.8 million and \$6.4 million at June 30, 2022 and 2021, respectively, primarily for cross-funded payroll.

7. Capital Assets

Table 18 represents the University's capital assets activity for the years ended June 30, 2022 and 2021 (\$ in thousands):

TABLE 18 – Capital Assets Activity

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

Asset	As of 2020	Additions	Retirements / adjustments	As of 2021	Additions*	Retirements / adjustments	As of 2022
Land	\$ 166,024	\$ 4,015	\$ (52)	\$ 169,987	\$ 19,288	\$ (801)	\$ 188,474
Buildings and improvements	7,357,104	376,699	(54,255)	7,679,548	210,606	(23,447)	7,866,707
Software	120,001	6,284	(217)	126,068	2,439	-	128,507
Equipment and furniture	712,513	43,560	(69,414)	686,659	73,091	(42,942)	716,808
Library books	39,618	-	(6,995)	32,623	-	(6,983)	25,640
Right of use assets (note 10)	186,543	968	25,423	212,934	18,780	3,658	235,372
Total	8,581,803	431,526	(105,510)	8,907,819	324,204	(70,515)	9,161,508
Accumulated depreciation/ amortization	(3,547,761)	(320,126)	116,404	(3,751,483)	(358,831)	65,251	(4,045,063)
Total	5,034,042	111,400	10,894	5,156,336	(34,627)	(5,264)	5,116,445
Construction in progress	359,070	287,957	(368,089)	278,938	306,844	(175,165)	410,617
Total capital assets, net	\$ 5,393,112	\$ 399,357	\$ (357,195)	\$5,435,274	\$ 272,217	\$ (180,429)	\$5,527,062

*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, 2022 there were \$45.4 million of deferred outflows of resources remaining associated with the acquisition.

9. Public Private Partnerships (PPP)

On November 8, 2016, the University entered into an agreement whereby the Building Authority sub-leased land on the Boston campus to Provident Commonwealth Educational Resources, Inc. (PCER), a Massachusetts not-for-profit corporation, for a term of 40 years (2056). The land is ground-leased to the Building Authority by the Commonwealth. PCER engaged a contractor to construct a 1,082-bed student housing facility on the site (the Boston Project). The Boston Project reverts to the Building Authority when the lease terminates. Commencing January 1, 2019, the annual rental amount payable to the Building Authority under the ground lease is \$1.0 million.

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 Building 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.

Pursuant to the Dining Facility Sublease dated November 8, 2016 between PCER, as sub-lessor and the Building Authority, as sub-lessee, PCER leased the dining facility, located within the Boston Project, to the Building Authority and the Building Authority shall operate or cause to be operated the dining facility. The University funded the construction costs of the dining facility through debt issued by the Building Authority. This lease only relates to the operations and maintenance of the dining facility. The annual rent payable is \$1.00.

On November 14, 2018, the Building Authority entered into an agreement whereby the Building Authority sub-leased land on the University of Massachusetts Dartmouth campus to Provident Commonwealth Educational Resources II, Inc. (PCER II), a Massachusetts not-for-profit corporation, for a term of 45 years (2064). The land is ground-leased to the Building Authority by the Commonwealth. PCER II engaged a contractor to construct a 1,210-bed student housing facility on the site (the Dartmouth Project). The Dartmouth Project reverts to the Building Authority when the lease terminates. Commencing on January 1, 2021, the annual rental amount payable to the Building Authority under the ground lease was \$625,000, increasing by 3% every five years.

The Dartmouth Project was financed with \$132.2 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. The Building 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.

Pursuant to the Dining Facility sublease dated November 13, 2018, between PCER II, as sub-lessor and the Building Authority, as sub-lessee, PCER II leased the dining facility, located within the Dartmouth Project, to the Building Authority and the Building Authority shall operate or cause to be operated the dining facility. The University funded the construction costs of the dining facility through debt issued by the Building Authority. This lease only relates to the operations and maintenance of the dining facility. The annual rent payable is \$1.00.

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 Building Authority.

10. Leases

Lessee Leases

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. Some 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, 2022, 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.

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 2020	Additions	Remeasurements / terminations	As of 2021	Additions	Remeasurements / terminations	As of 2022
Right of use assets							
Real estate	\$ 186,543	\$ 968	\$ 25,423	\$ 212,934	\$ 18,503	\$ 3,658	\$ 235,095
Equipment	-	-	-	-	277	-	277
Total	186,543	968	25,423	212,934	18,780	3,658	235,372
Accumulated amortization	-	(19,181)	-	(19,181)	(30,475)	2,556	(47,100)
Total right of use assets, net	\$186,543	\$ (18,213)	\$ 25,423	\$193,753	\$ (11,695)	\$ 6,214	\$188,272

Lease Liabilities

Table 20 presents a summary of changes in the related lease liabilities during the year ended June 30, 2022 (\$ in thousands):

TABLE 20 – Lease Liabilities, FY2022

For the years 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
Total	\$ 200,805	\$ 7,269	\$ 6,978	\$ (14,396)	\$ 200,656	\$ 15,047

Table 21 presents a summary of changes in the related lease liabilities during the year ended June 30, 2021 (\$ in thousands):

TABLE 21 – Lease Liabilities, FY2021

For the year ended June 30, 2021 (\$ in thousands)

Liability	As of 2020	Additions	Remeasurements	Deductions	As of 2021	Due in one year
Real estate	\$ 188,900	\$ 968	\$ 25,423	\$ (14,486)	\$ 200,805	\$ 11,322

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

TABLE 22 – Future Annual Lease Payments

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

Fiscal year	Principal	Interest	Total
2023	\$ 15,047	\$ 4,561	\$ 19,608
2024	14,327	4,260	18,587
2025	13,831	3,961	17,792
2026	12,977	3,678	16,655
2027	12,996	3,400	16,396
2028–2032	62,874	12,543	75,417
2033–2037	48,872	5,869	54,741
2038–2042	15,506	1,091	16,597
2043–2047	4,226	171	4,397
Total	\$ 200,656	\$ 39,534	\$ 240,190

For the years ended June 30, 2022 and 2021, the University recognized \$4.7 million and \$3.7 million, respectively, of interest expense related to its operating leases.

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, 2022 (\$ in thousands):

TABLE 23 – 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
Total lease receivable	\$ 291,062	\$ 59,546	\$ 1,710	\$ (18,199)	\$ 334,119	\$ 16,464

Table 24 presents a summary of changes in the related lease receivable during the year ended June 30, 2021 (\$ in thousands):

TABLE 24 – Lease Receivables, FY2021

For the year ended June 30, 2021 (\$ in thousands)

Receivable	As of 2020	Additions	Remeasurements	Deductions	As of 2021	Due in one year
Real estate	\$ 195,941	\$ 2,160	\$ -	\$ (8,733)	\$ 189,368	\$ 8,489
Direct financing arrangement	106,760	-	-	(5,066)	101,694	5,072
Total lease receivable	\$ 302,701	\$ 2,160	\$ -	\$ (13,799)	\$ 291,062	\$ 13,561

For the years ended June 30, 2022 and 2021, the University recognized \$20.7 million and \$18.0 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.

Direct Financing Arrangement

In accordance with the GASB 87 transition guidance, the Building Authority has not restated the underlying assets nor the existing unearned interest income related to its direct financing arrangement.

On October 27, 2009, the Building Authority entered into an agreement to lease its facility located on Morrissey Boulevard in Dorchester, Massachusetts 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 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 fifty-one percent (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 semi-annually through fiscal year 2043.

At June 30, 2022 and 2021, the University recorded gross lease receivable of approximately \$96.6 million and \$101.7 million, respectively, related to the EMKI lease. Also, at June 30, 2022 and 2021, the University recorded unearned interest income of approximately \$25.9 million and \$28.2 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 \$2.3 million and other noncurrent liabilities of approximately \$23.7 million and \$25.9 million as of June 30, 2022 and 2021, respectively.



11. Long-Term Debt

Table 25 represents the outstanding long-term debt as of June 30, 2022, and the related activity during the fiscal year (\$ in thousands):

TABLE 25 – 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
Building Authority							
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	6%	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%	208,725	-	-	208,725
Series 2020-1	200,840	2050	5%	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
Total Building Authority				3,205,465	426,247	(126,044)	3,505,668
MHEFA/MDFA							
Series A	20,000	2030	variable	20,000	-	-	20,000
Total MHEFA/MDFA				20,000	-	-	20,000
WCCC MHEFA/MDFA							
Series 2005-D	99,325	2029	5.0–5.3%	425	-	-	425
Unamortized bond premium				20	-	(5)	15
WCCC MHEFA/MDFA				445	-	(5)	440
MDFA							
Clean renewable energy bonds	1,625	2027	3.50%	572	-	(94)	478
Total bonds payable				3,226,482	426,247	(126,143)	3,526,586
UMG*							
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)
Total notes payable				-	139,286	1,501	140,787
Total long-term debt				\$ 3,226,482	\$ 565,533	\$ (124,642)	\$ 3,667,373

* Includes debt incurred through Brandman University acquisition

Table 26 represents the outstanding long-term debt as of June 30, 2021, and the related activity during the fiscal year (\$ in thousands):

TABLE 26 – Long-Term Debt, FY2021

For the year ended June 30, 2021 (\$ in thousands)

Debt	Original borrowing	Maturity date	Interest rate	As of 2020	Additions	Reductions	As of 2021
Building Authority							
Series 2008-1	\$ 232,545	2038	Variable	\$ 145,515	\$ -	\$ (145,515)	\$ -
Series 2008-A	26,580	2038	Variable	16,050	-	(16,050)	-
Series 2009-2	271,855	2039	6.4–6.6%	16,945	-	-	16,945
Series 2009-3	28,570	2039	5.8–6.2%	23,825	-	(690)	23,135
Series 2010-1	118,985	2020	5.0%	15,900	-	(15,900)	-
Series 2010-2	430,320	2040	3.8–5.5%	430,320	-	-	430,320
Series 2010-3	3,005	2040	6%	2,555	-	(65)	2,490
Series 2011-1	135,040	2034	Variable	122,010	-	(122,010)	-
Series 2011-2	101,700	2034	Variable	92,800	-	(92,800)	-
Series 2013-1	212,585	2043	2.0–5.0%	95,170	-	(81,435)	13,735
Series 2013-2	71,970	2043	0.4–4.3%	58,200	-	(26,190)	32,010
Series 2013-3	24,640	2043	4.0–5.0%	1,380	-	(435)	945
Series 2014-1	293,890	2044	3.0–5.0%	147,675	-	(80,850)	66,825
Series 2014-3	67,635	2029	2.0–5.0%	50,680	-	(22,045)	28,635
Series 2014-4	157,855	2025	0.2–3.4%	30,540	-	(16,675)	13,865
Series 2015-1	298,795	2045	4.0–5.0%	298,795	-	(31,915)	266,880
Series 2015-2	191,825	2036	3.0–5.0%	179,805	-	(22,040)	157,765
Series 2017-1	165,130	2047	4.0–5.3%	165,130	-	-	165,130
Series 2017-2	19,510	2027	1.6–3.4%	16,595	-	(1,495)	15,100
Series 2017-3	187,680	2038	3.0–5.0%	160,015	-	(4,385)	155,630
Series 2018-1	37,650	2043	2.0–2.9%	37,650	-	-	37,650
Series 2019-1	208,725	2039	5%	208,725	-	-	208,725
Series 2020-1	200,840	2050	5%	200,840	-	-	200,840
Series 2020-2	129,830	2050	1.8–3.5%	129,830	-	-	129,830
Series 2020-3	319,345	2044	1.7–3.5%	319,345	-	(1,550)	317,795
Series 2020-4	329,930	2043	0.4%–3.0%	-	329,930	-	329,930
Series 2021-1	312,330	2037	5.0%	-	312,330	(10,060)	302,270
Series 2021-2	46,585	2036	0.2%	-	46,585	-	46,585
Unamortized bond premium				205,039	71,803	(34,412)	242,430
Total Building Authority				3,171,334	760,648	(726,517)	3,205,465
MHEFA/MDFA							
Series A	20,000	2030	Variable	20,000	-	-	20,000
Total MHEFA/MDFA				20,000	-	-	20,000
WCCC MHEFA/MDFA							
Series 2005-D	99,325	2029	5.0–5.3%	475	-	(50)	425
Unamortized bond premium				25	-	(5)	20
Total WCCC MHEFA/MDFA				500	-	(55)	445
MDFA							
Clean renewable energy bonds	1,625	2027	3.50%	669	-	(97)	572
Total bonds payable				3,192,503	760,648	(726,669)	3,226,482
Notes payable				1,486	-	(1,486)	-
Total long-term debt				\$3,193,989	\$ 760,648	\$ (728,155)	\$3,226,482

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, 2022, 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
2023	\$ 112,180	\$ 139,501	\$ (7,224)	\$ -	\$ 763	\$ 5,000	\$ 2,302	\$ 252,522
2024	123,166	133,162	(6,993)	-	754	10,000	1,086	261,175
2025	121,066	128,515	(6,729)	1,655	718	15,000	824	261,049
2026	117,306	123,556	(6,445)	1,690	684	20,000	453	257,244
2027	120,391	118,345	(6,153)	1,725	649	20,100	111	255,168
2028–2032	666,340	507,601	(25,992)	1,760	3,695	84,000	-	1,237,404
2033–2037	670,425	361,359	(15,989)	8,355	2,709	-	-	1,026,859
2038–2042	661,135	206,094	(4,110)	20,110	1,225	-	-	884,454
2043–2047	427,085	90,157	-	2,355	47	-	-	519,644
2048–2052	204,550	27,327	-	-	-	-	-	231,877
2053–2057	23,669	592	-	-	-	-	-	24,261
Total	\$3,247,313	\$1,836,209	\$ (79,635)	\$ 37,650	\$ 11,244	\$ 154,100	\$ 4,776	\$5,211,657

* 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, 2021, and May 1, 2022 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 32.94% and 33.00%, respectively. For fiscal year 2023 through fiscal year 2043, the estimated subsidy reflected in the table above is 33.00%.

Bond Activity

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.

In FY2021, the University issued \$312.3 million of Refunding Revenue Bonds, Series 2021-1 and \$376.5 million of federally taxable Refunding Revenue Bonds, Series 2020-4 and 2021-2. The refunding bonds refunded the 2008-1, 2008-A, 2011-1 and the 2011-2 bonds in the amount of \$358.4 million, the 2013-2 and 2014-1 bonds in the amount of \$26.8 million, and the 2013-1, 2013-2, 2014-1, 2014-3 and 2015-1 bonds in the amount of \$200.1 million. The University escrowed funds sufficient to provide for all future debt service payments on the refunded bonds until the bonds are called. These advanced refunded bonds are considered defeased and, accordingly, the liability for the bonds payable and the assets held to repay the debt are not recorded in the University's financial statements.

In FY2021, the University defeased approximately \$619.0 million of bonds outstanding from refunding activities.

Bond Premium (Discount)

The University amortizes the premiums received as a reduction of interest expense over the life of the respective bond issue. In FY2022 and FY2021, the University received premiums at issuance totaling \$26.3 million and \$71.8 million, respectively.

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.

Interest Rate Swaps

During fiscal year 2021, the University terminated all interest rate swaps. For the year ended June 30, 2021, the Building Authority incurred fees related to its variable rate debt program totaling approximately \$582.0 thousand dollars.

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-A2 are secured by a standby liquidity facility agreement that expired on August 12, 2022 and subsequently rolled with maturity dates through January 26, 2023.

TABLE 28 – Commercial Paper

As of June 30 (\$ in thousands)

Commercial paper	As of June 30, 2020	Additions	Reductions	As of June 30, 2021	Additions	Reductions	As of June 30, 2022
Commercial paper	\$ -	\$ 31,000	\$ -	\$ 31,000	\$ 86,700	\$ (97,700)	\$ 20,000

The University incurred total fees of \$0.7 million in FY2022 and FY2021, respectively, associated with the use of commercial paper.

Line of Credit

During fiscal 2022, the University entered into line of credit agreements 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 agreements had a maturity date of May 10, 2022.

During FY2022, the University amended the line of credit agreement with Bank of America for a maximum loan amount of \$150.0 million and allowed the State Street Bank line of credit to expire. The line of credit has a maturity date of May 1, 2023.

As of June 30, 2022, the outstanding balance on the line of credit was \$0.

12. 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)

Liabilities	As of June 30, 2021	Current portion as of June 30, 2021	As of June 30, 2022	Current portion as of June 30, 2022
Compensated absences*	\$ 121,440	\$ 97,562	\$ 129,152	\$ 104,112
Workers' compensation*	18,538	2,541	19,656	3,544
Unearned revenues	142,951	96,685	180,763	120,833
Advances and deposits	19,734	5,441	19,262	5,232
Other liabilities	136,675	70,396	139,995	82,066

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

13. Fringe Benefits

During the years ended June 30, 2022 and 2021, the Commonwealth paid \$430.9 million and \$364.9 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 \$158.0 million and \$119.3 million during the years ended June 30, 2022 and 2021, respectively. The remaining portion is included in revenue as state appropriations.



14. 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 are presented 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 \$178.9 million and \$141.7 million for the years ended June 30, 2022 and 2021, respectively. Annual covered payroll was 76.9% and 78.3% of annual total payroll for the University for the years ended June 30, 2022 and 2021, 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, 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. The net pension liability measured as of June 30, 2021 was determined based on a measurement date of June 30, 2020 from an actuarial valuation as of January 1, 2020 rolled forward to June 30, 2020. 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, 2022 and 2021, the University reported a liability of \$276.3 million and \$644.9 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, 2021 and 2020 was 2.65% and 3.76%, respectively.

For the fiscal years ended June 30, 2022 and 2021, the University recognized a net pension benefit of \$5.3 million and net pension expense of \$100.9 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, 2022 and 2021 as presented in **Tables 31** and **32** (\$ in thousands):

TABLE 31 – 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
Total	\$ 115,027	\$ 266,206

TABLE 32 – University's Proportionate Share of MSERS, FY2021

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

Pension resource	Deferred outflows of resources	Deferred inflows of resources
Changes of assumptions	\$ 36,564	\$ -
Changes in proportion due to internal allocation	60,820	12,552
Employer contributions after measurement date	31,495	-
Differences between expected and actual experience	20,519	4,173
Net difference between projected and actual investment earnings on pension plan investments	35,450	-
Changes in proportion from Commonwealth	487	1,572
Total	\$ 185,335	\$ 18,297

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
2023	\$ (43,520)
2024	(42,752)
2025	(49,171)
2026	(60,746)
Total	\$ (196,189)

Actuarial Assumptions

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

TABLE 34 – Actuarial Assumptions

Assumption	June 30, 2021	June 30, 2020
Investment rate of return	7.00%	7.15%
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-2016 **
Post-retirement	RP-2014 Blue Collar Healthy Annuitant Scale MP-2020 **	RP-2014 Blue Collar Healthy Annuitant Scale MP-2016 **
Disability	RP-2014 Blue Collar Healthy Annuitant Scale MP-2020 ***	RP-2014 Blue Collar Healthy Annuitant Scale MP-2016 **

* 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, 2021 and 2020 are summarized in **Tables 35** and **36**:

TABLE 35 – 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%
Total	100.00%	

TABLE 36 – Target Asset Allocation as of June 30, 2020

Asset class	Target allocation	Long-term expected real rate of return
Global equity	39.00%	4.80%
Core fixed income	15.00%	0.70%
Private equity	13.00%	8.20%
Portfolio completion strategies	11.00%	3.20%
Real estate	10.00%	3.50%
Value added fixed income	8.00%	4.20%
Timber / natural resources	4.00%	4.10%
Total	100.00%	

Discount Rate

The discount rate used to measure the total pension liability was 7.00% and 7.15% at June 30, 2021 and 2020, respectively. 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, 2022 and 2021 (\$ in thousands):

TABLE 37 – 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	\$ 422,938	\$ 276,313	\$ 155,799
June 30, 2021	849,667	644,879	476,558

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, 2022 and 2021, there were 2,191 and 2,057 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 \$8.9 million and \$8.5 million in 2022 and 2021, respectively. University employees contributed \$21.3 million and \$19.6 million in 2022 and 2021, 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, 2022 and 2021, the plan assets of the Gap Plan were \$8.8 million and \$9.4 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 the University matches their contributions. UMG's total contribution to the plan was \$2.8 million for the period from September 1, 2022 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 is therefore not presented.

15. 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, 2022 and 2021, 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, 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. The total OPEB liability as of June 30, 2021 was determined based on a measurement date of June 30, 2020 from an actuarial valuation as of January 1, 2020 rolled forward to June 30, 2020. 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, 2022 and 2021, the University reported a liability of \$485.1 million and \$829.8 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, 2021 and 2020 was 3.03% and 4.01%, respectively.

For the fiscal years ended June 30, 2022 and 2021, the University recognized a net OPEB benefit of \$35.3 million and a net OPEB expense of \$40.5 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, 2022, as shown in **Tables 38** and **39** (\$ in thousands):

TABLE 38 – 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
Net difference between projected and actual investment earnings on OPEB plan investments	-	5,896
Changes in proportion from Commonwealth	544	2,107
Total	\$ 156,858	\$ 542,728

TABLE 39 – University's Proportionate Share of OPEB, FY2021

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

OPEB resources	Deferred outflows of resources	Deferred inflows of resources
Changes of assumptions	\$ 68,336	\$ 80,198
Changes in proportion due to internal allocation	128,426	234,735
Employer contributions after measurement date	16,539	-
Differences between expected and actual experience	22,901	20,482
Net difference between projected and actual investment earnings on OPEB plan investments	2,399	-
Changes in proportion from Commonwealth	1,258	2,818
Total	\$ 239,859	\$ 338,233

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
2023	\$ (91,194)
2024	(81,254)
2025	(80,638)
2026	(78,302)
2027	(75,573)
Total	\$ (406,961)

Actuarial Assumptions

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 41** for annual healthcare cost trend rates.

TABLE 41 – 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 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	60.0%	0.0%
HMO	12.0%	4.0%

Significant actuarial assumptions used at the 2020 measurement date are as follows:

Long-term rate of return on investment: 7.15%

Annual healthcare cost trend rates:

Developed based on the most recent published GAO-Getzen trend rate model, version 2020_b.

Short-term: Based on review of the plan's historical trend rates during fiscal years 2019 and 2020, along with industry surveys, separately for non-Medicare and Medicare benefits. 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 2024 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
2020	4.90%	6.70%
2021	4.80%	6.60%
2022	4.70%	6.50%
2023	4.60%	6.40%
2024	4.70%	6.20%
2030	5.18%	5.18%
2040	5.18%	5.18%
2050	5.18%	5.18%
2060	4.84%	4.84%
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-2016 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 later.
- 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.
- 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 Participation Rates

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, 2021 and 2020 are summarized in **Tables 45** and **46**:

TABLE 45 – 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%
Total	100.00%	

TABLE 46 – Target Asset Allocation as of June 30, 2020

Asset class	Target allocation	Long-term expected real rate of return
Global equity	39.00%	4.80%
Core fixed income	15.00%	0.70%
Private equity	13.00%	8.20%
Portfolio completion strategies	11.00%	3.20%
Real estate	10.00%	3.50%
Value added fixed income	8.00%	4.20%
Timber / natural resources	4.00%	4.10%
Total	100.00%	

Discount Rate

The discount rates used to measure the total OPEB liability as of June 30, 2021 and 2020 were 2.77% and 2.28%, respectively. These rates were based on a blend of the Bond Buyer Index rates of 2.16% and 2.21%, respectively, as of the measurement dates June 30, 2021 and 2020 and the long term rate of return on Plan investments of 7.00% and 7.15%, respectively. 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, 2021 and 2020.

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, 2021 and 2020 (\$ in thousands)

Fiscal year ended	1% Decrease	Current discount rate	1% Increase
June 30, 2021	\$ 576,343	\$ 485,141	\$ 411,679
June 30, 2020	934,562	829,808	697,550

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, 2021 and 2020 (\$ in thousands)

Fiscal year ended	1% Decrease	Current discount rate	1% Increase
June 30, 2021	\$ 397,231	\$ 485,141	\$ 599,717
June 30, 2020	673,996	829,808	1,036,817



16. 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, 2022 (\$ in thousands):

TABLE 49 – 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
Educational and general						
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
Auxiliary enterprises	141,473	179,062	-	-	-	320,535
Other expenditures						
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
Total operating expenses and interest	\$ 2,075,569	\$ 1,074,146	\$ 121,334	\$ 330,715	\$ 117,244	\$ 3,719,008



Table 50 summarizes the University's operating expenses and interest by natural and functional classification for the year ended June 30, 2021 (\$ in thousands):

TABLE 50 – Operating Expenses and Interest, FY2021

For the year ended June 30, 2021 (\$ in thousands)

Expense / interest	Compensation and benefits	Supplies and services	Scholarships and fellowships	Depreciation and amortization	Interest	Total
Educational and general						
Instruction	\$ 837,583	\$ 97,125	\$ -	\$ -	\$ -	\$ 934,708
Research	325,462	225,131	-	-	-	550,593
Public service	70,992	17,778	-	-	-	88,770
Academic support	147,941	51,515	-	-	-	199,456
Student services	118,152	22,955	-	-	-	141,107
Institutional support	199,746	111,883	-	-	-	311,629
Operation and maintenance of plant	115,842	105,908	-	-	-	221,750
Depreciation and amortization	-	-	-	318,828	-	318,828
Scholarships and fellowships	-	-	85,500	-	-	85,500
Auxiliary enterprises	120,690	92,809	-	-	-	213,499
Other expenditures						
Independent operations	24,101	29,384	-	-	-	53,485
Public service activities	95,425	165,272	-	-	-	260,697
Total operating expenses	\$ 2,055,934	\$ 919,760	\$ 85,500	\$ 318,828	\$ -	\$ 3,380,022
Interest expense	-	-	-	-	109,144	109,144
Total operating expenses and interest	\$ 2,055,934	\$ 919,760	\$ 85,500	\$ 318,828	\$ 109,144	\$ 3,489,166

17. 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, 2022 and 2021 (\$ in thousands):

TABLE 51 – Unrestricted Net Position

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

Unrestricted resources	2022	2021
Unexpended plant and facilities	\$ 418,477	\$ 264,704
Auxiliary enterprises	89,237	104,751
Education and general	410,252	394,833
Quasi-endowment	379,143	475,167
Stabilization	152,667	144,684
Other unrestricted	30,023	84,424
Subtotal	1,479,799	1,468,563
Unfunded portion of pension liabilities	(427,492)	(477,841)
Unfunded portion of postretirement benefits other than pension liabilities	(871,010)	(928,182)
Total unrestricted net position	\$ 181,297	\$ 62,540

18. 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.

As of June 30, 2022, pursuant to the agreement, the Developer has made deposits totaling \$11.0 million into an escrow account that will be applied to the initial fixed rent payment at closing. As of June 30, 2022, the \$11.0 million in funds would only be returned to the Developer if the University failed to perform at closing.

In October 2022, the \$11.0 million became a fully non-refundable deposit that has been withdrawn from escrow and released to the University without conditions. Additionally, 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, 2022 and 2021 of \$181.5 million and \$162.8 million, respectively. The University has entered an energy performance contract that is being managed by the Commonwealth's Division of Capital Asset Management and Maintenance (DCAMM) under its Clean Energy Investment Program. This project includes 32 energy conservation measures. The University has a commitment to the Commonwealth for Clean Energy Investment Program funds used through June 30, 2022 and 2021 of \$36.4 million and \$41.2 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.

19. Blended Component Units

Condensed information for the University's blended component units, the Building Authority, WCCC and UMG as of June 30, 2022 is presented in **Tables 52, 53 and 54** (\$ in thousands):

TABLE 52 – 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	-
Total net position	\$1,210,471	\$ (25,037)	\$ 205,988	\$ -	\$ (64,365)	\$ -

TABLE 53 – 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)
Increase (decrease) in net position	\$ 13,343	\$ (16,283)	\$ 22,813	\$ -	\$ (16,538)	\$ 420

TABLE 54 – 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)	-
Change in cash and cash equivalents	\$ 88,319	\$ (16,283)	\$ 2,607	\$ -	\$ (26,724)	\$ 420

Condensed information for the University's blended component units, the Building Authority and WCCC as of June 30, 2021 is presented in **Tables 55, 56** and **57** (\$ in thousands):

TABLE 55 – Condensed Information from the Statements of Net Position, FY2021

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

Condensed Information from the Statements of Net Position	Building Authority	Eliminations	WCCC	Eliminations
Capital assets, net	\$ 3,817,026	\$ (450,458)	\$ 372,320	\$ -
Lease receivable	161,854	(8,926)	103,414	-
Other assets	525,874	166,039	151,604	(2,544)
Deferred outflows	119,261	(941)	8,764	-
Total assets and deferred outflows	4,624,015	(294,286)	636,102	(2,544)
Debt, including commercial paper	3,236,465	(234,002)	329,798	-
Lease liability	22,320	-	-	-
Other liabilities	109,632	(29,662)	24,981	(2,544)
Deferred inflows	58,470	(3,803)	137,648	-
Total liabilities and deferred inflows	3,426,887	(267,467)	492,427	(2,544)
Total net position	\$ 1,197,128	\$ (26,819)	\$ 143,675	\$ -

TABLE 56 – Condensed Information from the Statements of Revenues, Expenses, and Changes in Net Position, FY2021

For the year ended June 30, 2021 (\$ in thousands)

Condensed Information from the Statements of Revenues, Expenses, and Changes in Net Position	Building Authority	Eliminations	WCCC	Eliminations
Other revenues	\$ 226,638	\$ (121,893)	\$ 104,756	\$ (53,591)
Total revenues	226,638	(121,893)	104,756	(53,591)
Operation and maintenance of capital assets	4,711	(5,033)	25,834	(23,782)
Depreciation	158,488	(19,510)	29,195	-
Interest expense	109,213	(104,534)	6,636	-
Other expenses	10,064	(9,821)	19,619	(29,809)
Total expenses	282,476	(138,898)	81,284	(53,591)
Increase in net position	\$ (55,838)	\$ 17,005	\$ 23,472	\$ -

TABLE 57 – Condensed Information from the Statements of Cash Flows, FY2021

For the year ended June 30, 2021 (\$ in thousands)

Condensed Information from the Statements of Cash Flows	Building Authority	Eliminations	WCCC	Eliminations
Net cash provided by (used in) operating activities	118,497	\$ 17,005	\$ 4,976	\$ -
Net cash provided by (used in) investing activities	8,381	-	(51,428)	-
Net cash provided by (used in) capital and other financing activities	(250,177)	-	47,861	-
Change in cash and cash equivalents	\$ (123,299)	\$ 17,005	\$ 1,409	\$ -

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.

20. 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 non-University agency investments in the amount of \$20.5 million and \$28.4 million as of June 30, 2022 and 2021. This note does not include investment information for UMDF assets not held by UMF given the immaterial nature of UMDF's balances and activities.

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, 2022 and 2021, 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 Standard & Poor's (S&P) assign credit ratings to security issues and issuers that indicate a measure of potential credit risk to investors.

Table 58 presents the unrated debt investments at fair value by credit quality of UMF's non-agency investment portfolio as of June 30, 2022 (\$ in thousands):

TABLE 58 – Debt Investments by Credit Quality, FY2022

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

Debt securities	2022	S&P rating
U.S. Treasury securities	\$ 67,367	AAA
Bond funds, including exchange traded funds	2,046	Not Rated
Total debt securities	\$ 69,413	

Table 59 presents the unrated debt investments at fair value by credit quality of UMF's non-agency investment portfolio as of June 30, 2021 (\$ in thousands):

TABLE 59 – Debt Investments by Credit Quality, FY2021

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

Debt securities	2021	S&P rating
U.S. Treasury securities	\$ 47,550	AAA
Total debt securities	\$ 47,550	

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 unrated debt investments of UMF’s non-agency investment portfolio as of June 30, 2022 (\$ in thousands):

TABLE 60 – 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
Total debt securities	\$ 40	\$ 43,270	\$ 21,381	\$ 4,722	\$ 69,413

Table 61 presents the fair value by investment maturity of the unrated debt investments of UMF’s non-agency investment portfolio as of June 30, 2021 (\$ in thousands):

TABLE 61 – Debt Investments by Maturity, FY2021

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

Debt securities	2021	Investment maturity
U.S. Treasury securities	\$ 47,550	1 to 5 years
Total debt securities	\$ 47,550	



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, 2022 (\$ in thousands):

TABLE 62 – 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
Money market funds	\$ -	65,637	\$ -	\$ -	\$ 65,637
Debt securities					
U.S. Treasury securities	-	67,367	-	-	67,367
Bond funds, including exchange traded funds	-	2,046	-	-	2,046
Total debt securities	-	69,413	-	-	69,413
Equity securities					
Domestic equities	-	65,685	-	-	65,685
International equities	-	29,907	-	-	29,907
Total equity securities	-	95,592	-	-	95,592
Alternative investments					
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
Total alternative investments	564,908	-	-	-	564,908
Total investments	\$ 564,908	\$ 230,642	\$ -	\$ -	\$ 795,550

Table 63 summarizes the fair value of UMF's non-agency investments by type as of June 30, 2021 (\$ in thousands):

TABLE 63 – Fair Value Hierarchy of Non-Agency Investments, FY2021

As of June 30, 2021 (\$ 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
Money market funds	\$ -	\$ 45,536	\$ -	\$ -	\$ 45,536
Debt securities					
U.S. Treasury securities	-	47,550	-	-	47,550
Total debt securities	-	47,550	-	-	47,550
Equity securities					
Domestic equities	-	85,997	-	554	86,551
International equities	-	30,690	-	-	30,690
Total equity securities	-	116,687	-	554	117,241
Alternative investments					
Multi-strategy hedge funds					
Equity	255,591	-	-	-	255,591
Long/short	167,262	-	-	-	167,262
Fixed income	35,282	-	-	-	35,282
Absolute return	17,588	-	-	-	17,588
Real assets	8,061	-	-	-	8,061
Private equity	71,503	-	-	-	71,503
Private debt	17,644	-	-	-	17,644
Private real estate	8,558	-	-	-	8,558
Annuity & life income pooled funds	3,470	-	-	-	3,470
Total alternative investments	584,959	-	-	-	584,959
Total investments	\$ 584,959	\$ 209,773	\$ -	\$ 554	\$ 795,286



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, 2022 (\$ in thousands):

TABLE 64 – 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
Total	\$564,908	\$ 32,430			

* 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, 2021 (\$ in thousands):

TABLE 65 – Alternative Non-Agency Investments, FY2021

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

Alternative investments	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Multi-strategy hedge funds					
Equity	\$ 255,591	\$ -	Daily to quarterly	1-90 days	Lock-up provisions range from none to 2 years.
Long/short	167,262	-	Quarterly to annual	45–90 days	Lock-up provisions range from none to 3 years.
Fixed income	35,282	-	Quarterly	**	Lock-up provisions range from none to 1 year.
Absolute return	17,588	-	Quarterly to annual	45–65 days	No lock-up restrictions
Real assets	8,061	-	Annual	90 days	No lock-up restrictions
Private equity and venture capital	71,503	14,498	Closed end funds	*	Not redeemable
Private debt	17,644	11,657	Closed end funds	*	Not redeemable
Private real estate	8,558	1,716	Closed end funds	*	Not redeemable
Annuity & life income pooled funds	3,470	-	Daily		No lock-up restrictions
Total	\$584,959	\$ 27,871			

* 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.

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.

Subsequent Events

On July 7, 2022, the University entered into a public-private partnership agreement with Mass Ave Housing Partners LLC, to carry out the design, construction, financing, operation, management and maintenance of a portion of the Student Housing Project consisting of approximately 600 beds of undergraduate apartment-style housing and related infrastructure, including residential dining commons and parking and approximately 200 beds of graduate student apartment-style housing and related infrastructure, including parking.

The estimated cost of construction of the Student Housing Project is \$250.0 million.

Mass Ave Housing Partners LLC will also manage, maintain, and operate the Student Housing Facilities for a term of 65-years.

For purposes of determining the effects of subsequent events on these financial statements, management has evaluated events subsequent to June 30, 2022 and through December 15, 2022, the date on which 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	2021	2020	2019	2018	2017	2016	2015	2014
University's proportion of the net pension liability	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	\$ 276,313	\$ 644,879	\$ 526,739	\$ 409,319	\$ 420,234	\$ 429,871	\$ 408,418	\$ 237,134
University's covered-employee payroll	\$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	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	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	2022	2021	2020	2019	2018	2017	2016	2015
Contractually required contribution	\$ 45,010	\$ 31,495	\$ 40,617	\$ 35,843	\$ 28,292	\$ 25,618	\$ 22,386	\$ 22,386
Contributions in relation to the contractually required contribution	(45,010)	(31,495)	(40,617)	(35,843)	(28,292)	(25,618)	(22,386)	(22,386)
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
University's covered-employee payroll	\$1,318,298	\$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	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	2021	2020	2019	2018 (restated)	2017
University's proportion of the net OPEB	3.03%	4.01%	5.43%	4.82%	4.67%
University's proportionate share of the net OPEB	\$ 485,141	\$ 829,808	\$ 992,991	\$ 895,669	\$ 817,357
University's covered-employee payroll	\$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	39.87%	65.60%	79.62%	72.08%	69.94%
Plan fiduciary net position as a percentage of total OPEB liability	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	2022	2021	2020	2019	2018
Contractually required contribution	\$ 21,091	\$ 16,538	\$ 21,040	\$ 26,137	\$ 21,421
Contributions in relation to the contractually required contribution	(21,091)	(16,538)	(21,040)	(26,137)	(21,421)
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -
University's covered-employee payroll	\$1,318,298	\$1,216,914	\$1,264,971	\$1,247,098	\$1,242,525
Contributions as a percentage of covered-employee payroll	1.60%	1.36%	1.66%	2.10%	1.72%



UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2022

Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
Research and Development Cluster					
Agency for International Development					
National Academy of Sciences	98.001	2000009509	USAID Foreign Assistance for Programs Overseas	\$ 22,461	118,629
Inclusive Development Partners	98.012	AID-7200AA18CA00009	USAID Development Partnerships for University Cooperation and Development	-	57,262
Management Sciences for Health Inc	98.U01	72030620CA00006	United States Agency for International Development Contracts	-	257,403
Management Systems International (MIS)	98.U02	720-306-19-C-00004	United States Agency for International Development Contracts	-	65,476
Agency for International Development Total				<u>22,461</u>	<u>498,770</u>
Department of Agriculture					
Agricultural Research Service	10.001	Direct	Agricultural Research-Basic and Applied Research	-	337,548
U.S. Department of Agriculture	10.001	Direct	Agricultural Research-Basic and Applied Research	-	31,910
Civilian Research & Development Foundation	10.001	59-0210-8-184	Agricultural Research-Basic and Applied Research	-	5,077
Civilian Research & Development Foundation	10.001	DAA3-19-6574-1	Agricultural Research-Basic and Applied Research	-	79,568
CRDF Global	10.001	59-0210-6-004	COVID-19 Agricultural Research-Basic and Applied Research	-	8,878
CRDF Global	10.001	R-202109-68108	Agricultural Research-Basic and Applied Research	-	65,368
Agricultural Research-Basic and Applied Research Total				<u>-</u>	<u>528,349</u>
Animal and Plant Health Inspection Serv	10.025	Direct	Plant and Animal Disease, Pest Control, and Animal Care	-	435,598
MA Dept of Agricultural Resources	10.156	015458-00002 AM190100XXXXG060	Federal-State Marketing Improvement Program	-	(12,238)
Center for Produce Safety	10.170	2019CPS13	Specialty Crop Block Grant Program - Farm Bill	11,077	11,077
MA Dept of Agricultural Resources	10.170	015901-00002	Specialty Crop Block Grant Program - Farm Bill	-	22,405
MA Dept of Agricultural Resources	10.170	016765-00002	Specialty Crop Block Grant Program - Farm Bill	-	2,679
MA Dept of Agricultural Resources	10.170	118-1541	Specialty Crop Block Grant Program - Farm Bill	-	1,401
MA Dept of Agricultural Resources	10.170	119-1663 015338-00002	Specialty Crop Block Grant Program - Farm Bill	-	45,165
MA Dept of Agricultural Resources	10.170	119-1668	Specialty Crop Block Grant Program - Farm Bill	-	4,795
MA Dept of Agricultural Resources	10.170	21SCBPMA1011 16768	Specialty Crop Block Grant Program - Farm Bill	-	936
Specialty Crop Block Grant Program - Farm Bill Total				<u>11,077</u>	<u>88,458</u>
Natl Institute of Food and Agriculture	10.202	Direct	Cooperative Forestry Research	-	400,884
U.S. Department of Agriculture	10.202	Direct	Cooperative Forestry Research	-	868
Cooperative Forestry Research Total				<u>-</u>	<u>401,752</u>
Natl Institute of Food and Agriculture	10.203	Direct	Payments to Agricultural Experiment Stations Under the Hatch Act	-	2,472,256
U.S. Department of Agriculture	10.203	Direct	Payments to Agricultural Experiment Stations Under the Hatch Act	-	253,990
Payments to Agricultural Experiment Stations Under the Hatch Act Total				<u>-</u>	<u>2,726,246</u>
University of Vermont	10.205	20193864029877	Payments to 1890 Land-Grant Colleges and Tuskegee University	-	3,009
Natl Institute of Food and Agriculture	10.207	Direct	Animal Health and Disease Research	-	14,662
Rensselaer Polytechnic Institute	10.215	20185864028415	Sustainable Agriculture Research and Education	-	552
University of Connecticut	10.215	2017-38640-26915	Sustainable Agriculture Research and Education	-	10,001
University of Vermont	10.215	2017-38640-26915	Sustainable Agriculture Research and Education	-	8,290
University of Vermont	10.215	2018-38640-28415	Sustainable Agriculture Research and Education	-	1,819
University of Vermont	10.215	20182864028415	Sustainable Agriculture Research and Education	-	8,490
University of Vermont	10.215	20183864028415	Sustainable Agriculture Research and Education	-	23,868
University of Vermont	10.215	20193864029877	Sustainable Agriculture Research and Education	14,998	69,763
University of Vermont	10.215	20203864031520	Sustainable Agriculture Research and Education	-	121,748
University of Vermont	10.215	GNE20-229-34268	Sustainable Agriculture Research and Education	-	2,633
University of Vermont	10.215	LNE18-365-32231	Sustainable Agriculture Research and Education	15,194	19,694
Sustainable Agriculture Research and Education Total				<u>30,192</u>	<u>266,858</u>
University of Maryland	10.250	58600000052	Agricultural and Rural Economic Research, Cooperative Agreements and Collaborations	-	4,229
University of Georgia	10.303	SUB00002423	Integrated Programs	-	11,155
Cornell University	10.304	80289-10778	Homeland Security-Agricultural	-	(2,331)
University of Florida	10.304	20163762025850	Homeland Security-Agricultural	-	15,450
University of Florida	10.304	20213762135791	Homeland Security-Agricultural	-	33,045
Homeland Security-Agricultural Total				<u>-</u>	<u>46,164</u>
Cornell University	10.309	20205118132197	Specialty Crop Research Initiative	-	20,398
Rutgers University	10.309	2018-51181-28383	Specialty Crop Research Initiative	-	108,689
University of Minnesota	10.309	20215118135861	Specialty Crop Research Initiative	-	1,166
Specialty Crop Research Initiative Total				<u>-</u>	<u>130,253</u>

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2022

Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
Natl Institute of Food and Agriculture	10.310	Direct	Agriculture and Food Research Initiative (AFRI)	192,504	2,075,781
U.S. Department of Agriculture	10.310	Direct	Agriculture and Food Research Initiative (AFRI)	13,197	246,152
Cornell University	10.310	20216701535235	Agriculture and Food Research Initiative (AFRI)	-	3,103
CT Agricultural Experiment Station	10.310	015702-00002 CAES-2020-23016-1	Agriculture and Food Research Initiative (AFRI)	-	22,567
CT Agricultural Experiment Station	10.310	CAES-2020-23000-1	Agriculture and Food Research Initiative (AFRI)	-	76,255
Harvard forest	10.310	20216800834102	Agriculture and Food Research Initiative (AFRI)	-	39,710
Iowa State University	10.310	020682B	Agriculture and Food Research Initiative (AFRI)	-	6,671
Louisiana State University	10.310	LSU PO 0000019947	Agriculture and Food Research Initiative (AFRI)	-	6,814
North Carolina State University	10.310	2015-68004-23179	Agriculture and Food Research Initiative (AFRI)	-	(1)
North Carolina State University	10.310	2019-0644-01	Agriculture and Food Research Initiative (AFRI)	-	49,330
Ohio State University	10.310	20156800632555	Agriculture and Food Research Initiative (AFRI)	-	17,741
Pennsylvania State University	10.310	20196702329346	Agriculture and Food Research Initiative (AFRI)	-	15,421
Tufts University	10.310	AG0032/PO# EP0210330	Agriculture and Food Research Initiative (AFRI)	-	17,995
University of Connecticut	10.310	20216701734027	Agriculture and Food Research Initiative (AFRI)	-	26,329
University of Maryland	10.310	2018-67032-27697	Agriculture and Food Research Initiative (AFRI)	-	15,563
University of Rhode Island	10.310	0008733/07262021A	Agriculture and Food Research Initiative (AFRI)	-	45,979
University of Wisconsin Madison	10.310	20196702329637	Agriculture and Food Research Initiative (AFRI)	-	30,057
West Virginia University	10.310	20206701430901	Agriculture and Food Research Initiative (AFRI)	-	15,361
World Farmers	10.310	2018701728601	Agriculture and Food Research Initiative (AFRI)	-	1,004
Agriculture and Food Research Initiative (AFRI) Total				205,701	2,711,832
World Farmers	10.311	20214940035643	Beginning Farmer and Rancher Development Program	-	44
Natl Institute of Food and Agriculture	10.318	Direct	Women and Minorities in Science, Technology, Engineering, and Mathematics Fields	4,670	49,541
Natl Institute of Food and Agriculture	10.328	Direct	National Food Safety Training, Education, Extension, Outreach, and Technical Assistance	-	206,956
University of Vermont	10.328	2018-70020-28878	National Food Safety Training, Education, Extension, Outreach, and Technical Assistance	-	2,759
University of Vermont	10.328	20207002032264	National Food Safety Training, Education, Extension, Outreach, and Technical Assistance	-	9,045
National Food Safety Training, Education, Extension, Outreach, and Technical Assistance Competitive Grants Program Total				-	218,760
Natl Institute of Food and Agriculture	10.329	Direct	Crop Protection and Pest Management Competitive Grants Program	6,472	529,472
Cornell University	10.329	2018700062882	Crop Protection and Pest Management Competitive Grants Program	-	5,790
Crop Protection and Pest Management Competitive Grants Program Total				6,472	535,262
Nuestras Raices, Inc.	10.443	UM-2738	Outreach and Assistance for Socially Disadvantaged and Veteran Farmers and Ranchers	-	6,289
University of Delaware	10.500	20187002728588	Cooperative Extension Service	17,500	68,237
University of New Hampshire	10.500	20204640132797	Cooperative Extension Service	-	2,814
Cooperative Extension Service Total				17,500	71,051
Natl Institute of Food and Agriculture	10.515	Direct	Renewable Resources Extension Act and National Focus Fund Projects	-	20,224
U.S. Forest Service	10.608	Direct	Food for Education	-	13,090
U.S. Forest Service	10.652	Direct	Forestry Research	-	(8,553)
MA Dept of Conservation and Recreation	10.664	4CTDCR3760CUMASSUNIV	Cooperative forestry Assistance	-	8,625
Berkshire Regional Planning Commission	10.678	20DC11094200275	Forest Stewardship Program	-	36,818
U.S. Forest Service	10.680	Direct	Forest Health Protection	-	83,562
U.S. Forest Service	10.699	Direct	Partnership Agreements	-	167,160
U.S. Forest Service	10.707	Direct	Research Joint Venture and Cost Reimbursable Agreements	-	736,632
Natural Resources Conserv Services	10.902	Direct	Soil and Water Conservation	-	168,117
Indiana University of Pennsylvania	10.902	NR203A750023C016	Soil and Water Conservation	-	42,992
Soil and Water Conservation Total				-	211,109
Natural Resources Conserv Services	10.903	Direct	Soil Survey	-	140,845
U.S. Department of Agriculture	10.912	Direct	Environmental Quality Incentives Program	-	18,035
American Farmland Trust	10.912	NR213A750013G009	Environmental Quality Incentives Program	-	17,892
Environmental Quality Incentives Program Total				-	35,927
MA Dept of Agricultural Resources	10.931	2511-0972	Agricultural Conservation Easement Program	-	635
Agricultural Research Service	10.U01	59-8010-9-002	Department of Agriculture Contracts	-	33,867
Cape Cod Cranberry Growers' Assoc	10.U02	198043	Department of Agriculture Contracts	-	7,228
MA Dept of Agricultural Resources	10.U03	015902-00002	Department of Agriculture Contracts	-	19,434
Natural Resources Conserv Services	10.U04	NR193A750023C007	Department of Agriculture Contracts	9,165	10,808
U.S. Forest Service	10.U05	FS 18-JV-11242307-083 MOD 004	Department of Agriculture Contracts	-	26,902
University of Maryland	10.U06	IR4 11811	Department of Agriculture Contracts	-	6,925
Department of Agriculture Total				284,777	9,788,512

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2022

Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
Department of Commerce					
National Oceanic and Atmospheric Admin	11.011	Direct	Ocean Exploration	-	(133)
NE Reg Assoc of Coastal Ocean Observ Sys	11.012	A008-005	Integrated Ocean Observing System (IOOS)	-	251,406
NE Reg Assoc of Coastal Ocean Observ Sys	11.012	A009-005	Integrated Ocean Observing System (IOOS)	-	118,138
Rutgers University	11.012	1226	Integrated Ocean Observing System (IOOS)	-	49,074
Rutgers University	11.012	6170	Integrated Ocean Observing System (IOOS)	-	12,715
University of Delaware	11.012	UDR0000122	Integrated Ocean Observing System (IOOS)	-	63,311
Integrated Ocean Observing System (IOOS) Total				-	494,644
National Oceanic and Atmospheric Admin	11.417	Direct	Sea Grant Support	-	67,200
Massachusetts Institute of Technology	11.417	NA18OAR4170105	Sea Grant Support	-	(4,823)
Massachusetts Institute of Technology	11.417	NA22OAR4170126	Sea Grant Support	-	10,051
Massachusetts Institute of Technology	11.417	S447 / PO 150170	Sea Grant Support	-	3
Massachusetts Institute of Technology	11.417	s5648/720804	Sea Grant Support	-	5,448
University of Maine	11.417	UMS1232	Sea Grant Support	-	60,256
University of Puerto Rico	11.417	NA18OAR4170089	Sea Grant Support	-	17,748
Woods Hole Oceanographic Institution	11.417	A101382	Sea Grant Support	-	4,494
Woods Hole Oceanographic Institution	11.417	NA18OAR4170104	Sea Grant Support	-	35,876
Woods Hole Oceanographic Institution	11.417	NA22OAR4170122	Sea Grant Support	-	3,181
Sea Grant Support Total				-	199,434
Coonamessett Farm Foundation, Inc.	11.427	18GAR022-46	Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program	-	4,428
Gulf of Maine Research Institute	11.427	10-SKMSE-17 SMAST	Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program	-	18,036
Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program Total				-	22,464
National Oceanic and Atmospheric Admin	11.431	Direct	Climate and Atmospheric Research	-	232,313
Columbia University	11.431	4GG012355	Climate and Atmospheric Research	-	5,936
Columbia University	11.431	NA20OAR4310147A	Climate and Atmospheric Research	-	11,965
Gulf of Maine Research Institute	11.431	10-COCAMS-17 UMassD	Climate and Atmospheric Research	-	5,421
Gulf of Maine Research Institute	11.431	10-COCAST-19 SMAST	Climate and Atmospheric Research	-	2,111
Woods Hole Oceanographic Institution	11.431	A101376	Climate and Atmospheric Research	-	5,427
Climate and Atmospheric Research Total				-	263,173
Gulf of Maine Research Institute	11.432	10-CODMSE-21-SMAST	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	-	79
Woods Hole Oceanographic Institution	11.432	A101442/37007427	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	-	36,097
Woods Hole Oceanographic Institution	11.432	A101442/37077401	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	-	15,309
Woods Hole Oceanographic Institution	11.432	A101442/37077402	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	-	48,357
Woods Hole Oceanographic Institution	11.432	A101442/37077404	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	-	231,307
Woods Hole Oceanographic Institution	11.432	A101442/37077405	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	-	209,932
Woods Hole Oceanographic Institution	11.432	A101442/37077406	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	-	166,672
Woods Hole Oceanographic Institution	11.432	A101442/37077407	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	-	6,082
Woods Hole Oceanographic Institution	11.432	A101442/37077408	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	-	3,298
Woods Hole Oceanographic Institution	11.432	A101442/37077409	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	-	46,096
Woods Hole Oceanographic Institution	11.432	A101442/37077410	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	-	26,304
Woods Hole Oceanographic Institution	11.432	A101442/37077411	National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	-	8,165
National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes Total				-	797,698
New England Fishery Management Council	11.441	21-06	Regional Fishery Management Councils	-	35,025
National Oceanic and Atmospheric Admin	11.454	Direct	Unallied Management Projects	-	49,418
National Oceanic and Atmospheric Admin	11.459	Direct	Weather and Air Quality Research	-	51,006
University of California Los Angeles	11.459	NA18OAR4590396	Weather and Air Quality Research	-	32,677
Weather and Air Quality Research Total				-	83,683
National Oceanic and Atmospheric Admin	11.463	Direct	Habitat Conservation	-	537
National Oceanic and Atmospheric Admin	11.472	Direct	Unallied Science Program	40,965	112,566
Atlantic States Marine Fisheries Commiss	11.472	NA18NMF4720321	Unallied Science Program	-	49,062
Gulf of Maine Research Institute	11.472	10-CCBFT-19 SMAST	Unallied Science Program	-	3,081
MA Division of Marine Fisheries	11.472	DMF-20014	Unallied Science Program	-	4,107
New England Aquarium	11.472	2717	Unallied Science Program	-	9,951
Unallied Science Program Total				40,965	178,767

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NE Reg Assoc of Coastal Ocean Observ Sys	11.478	A010-005	Center for Sponsored Coastal Ocean Research-Coastal Ocean Program	-	35,160
National Institute of Standards and Tech	11.609	Direct	Measurement and Engineering Research and Standards	-	232,592
University of Delaware	11.619	Agreement 2.7.22	Arrangements for Interdisciplinary Research Infrastructure	-	161,167
University of Delaware	11.619	COVID19-1.01	COVID-19 Arrangements for Interdisciplinary Research Infrastructure	-	63,899
University of Delaware	11.619	70NANB17H0002	Arrangements for Interdisciplinary Research Infrastructure	-	(158)
University of Delaware	11.619	NII MBL - P AA F O R P C4 .1-1 38	Arrangements for Interdisciplinary Research Infrastructure	-	88,512
University of Delaware	11.619	NIIMBL PAA ARP-09	Arrangements for Interdisciplinary Research Infrastructure	-	6,758
University of Delaware	11.619	PC2.1-036	Arrangements for Interdisciplinary Research Infrastructure	-	217,237
University of Delaware	11.619	PC2.2-160 PAA	Arrangements for Interdisciplinary Research Infrastructure	-	18,261
University of Delaware	11.619	PC4.1-138	Arrangements for Interdisciplinary Research Infrastructure	-	32,828
University of Delaware	11.619	UDR0000052	Arrangements for Interdisciplinary Research Infrastructure	-	351,580
University of Delaware	11.619	UDR0000057	COVID-19 Arrangements for Interdisciplinary Research Infrastructure	-	146,283
Arrangements for Interdisciplinary Research Infrastructure Total				-	1,086,367
Association of US Delegates to the Gulf	11.999	GOMA NA21NOS9990124	Marine Debris Program	-	11,111
Global Science and Technology, Inc.	11.U01	ST-1330-17-CQ-0050	Department of Commerce & NOAA Contracts	-	58,339
Department of Commerce Total				40,965	3,548,279
Department of Defense					
Defense Logistics Agency	12.002	Direct	Procurement Technical Assistance for Business Firms	-	478,374
Air force Research Laboratory	12.300	Direct	Basic and Applied Scientific Research	107,331	237,388
Office of Naval Research	12.300	Direct	Basic and Applied Scientific Research	1,543,724	6,822,522
Boston University	12.300	4500002614	Basic and Applied Scientific Research	-	(489)
Carnegie Mellon University	12.300	1140207-403544	Basic and Applied Scientific Research	-	259,816
Carnegie Mellon University	12.300	1140217-442599	Basic and Applied Scientific Research	-	103,688
Stony Brook University	12.300	1172044/2/93083	Basic and Applied Scientific Research	-	270,775
Stony Brook University	12.300	89481/2/1164365	Basic and Applied Scientific Research	-	1,636,578
University of California Irvine	12.300	2021-1507	Basic and Applied Scientific Research	-	23,679
University of Miami	12.300	N000142112550	Basic and Applied Scientific Research	-	110,794
Basic and Applied Scientific Research Total				1,651,055	9,464,751
University of California Berkeley	12.351	HDTRA12210005	Scientific Research - Combating Weapons of Mass Destruction	-	265
Department of The Army Medical Division	12.420	Direct	Military Medical Research and Development	-	39,344
U.S. Army Medical Research	12.420	Direct	Military Medical Research and Development	9,795	888,853
U.S. Department of Defense	12.420	Direct	Military Medical Research and Development	506,565	4,929,079
U.S. Department of Defense	12.420	Direct/W81XWH-21-1-0029/PR200620	COVID-19 Military Medical Research and Development	-	796,080
Brown University	12.420	00001459	Military Medical Research and Development	-	107,755
Charles River Analytics	12.420	SC1915101	Military Medical Research and Development	-	134,189
Columbia University	12.420	2(GG017452-04)	Military Medical Research and Development	-	33,192
Harvard School of Public Health	12.420	W81XWH-17-0692	Military Medical Research and Development	-	159,583
Henry M. Jackson Foundation	12.420	857395 PO: 3170	Military Medical Research and Development	-	166,843
Massachusetts General Hospital	12.420	W81XWH-17-1-0212	Military Medical Research and Development	-	(723)
University of Pittsburgh	12.420	W81XWH-21-1-0352	Military Medical Research and Development	-	65,077
VA Connecticut Research Education Found	12.420	UMA2202EAS	Military Medical Research and Development	-	8,701
Military Medical Research and Development Total				516,360	7,327,973
Army Research Lab	12.431	Direct	Basic Scientific Research	-	555,742
Office of Naval Research	12.431	Direct	Basic Scientific Research	-	3,428
U.S. Army Cdc Soldier Center	12.431	Direct	Basic Scientific Research	-	262,532
U.S. Army Cdc Soldier Center	12.431	Direct	Naval Medical Research and Development	-	60,375
U.S. Army Research Office	12.431	Direct	Basic Scientific Research	513,619	1,707,238
Colorado School of Mines	12.431	401300-5801 PO# 180471	Basic Scientific Research	-	(382)
Duke University	12.431	313-0589	Basic Scientific Research	-	60,009
Duke University	12.431	W911NF1510358	Basic Scientific Research	-	228,236
H F Webster Engineering Services, Inc.	12.431	W911NF-15-2-0034	Basic Scientific Research	-	(3,374)
North Carolina State University	12.431	W911NF2110283	Basic Scientific Research	-	7,837
University of Arizona	12.431	W911NF2110325	Basic Scientific Research	-	142,294
University of Maryland	12.431	W911NF1810146	Basic Scientific Research	-	192,102
University of Pittsburgh	12.431	W911NF2120208	Basic Scientific Research	-	431,380
University of Southern California	12.431	112635750	Basic Scientific Research	-	281,563
Worcester Polytechnic Institute	12.431	11077-GR	Basic Scientific Research	-	7,232
Worcester Polytechnic Institute	12.431	16-TMP-00-215461	Basic Scientific Research	-	295
Worcester Polytechnic Institute	12.431	W911NF1920108	Basic Scientific Research	-	140,871
Basic Scientific Research Total				513,619	4,077,378

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Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
U.S. Department of Defense	12.617	Direct	Economic Adjustment Assistance for State Governments	-	577,870
Air force Office of Scientific Research	12.630	Direct	Basic, Applied, and Advanced Research in Science and Engineering	85,456	267,145
Army Research Lab	12.630	Direct	Basic, Applied, and Advanced Research in Science and Engineering	39,275	513,165
U.S. Army Cdc Soldier Center	12.630	Direct	Basic, Applied, and Advanced Research in Science and Engineering	663,636	6,320,455
Advanced Functional Fabrics of America	12.630	Exhibit 1-G PO 808	Basic, Applied, and Advanced Research in Science and Engineering	-	364,437
IBM Corporation	12.630	PO 5005129637	Basic, Applied, and Advanced Research in Science and Engineering	-	128,346
Notch, Inc	12.630	AFFOAPC2P3NOTCH	Basic, Applied, and Advanced Research in Science and Engineering	-	80,204
Notch, Inc	12.630	AFFOASTTRP2NOTCH	Basic, Applied, and Advanced Research in Science and Engineering	-	79,798
University of Delaware	12.630	59129	Basic, Applied, and Advanced Research in Science and Engineering	-	7,091
University of Illinois	12.630	088831-16647	Basic, Applied, and Advanced Research in Science and Engineering	-	1,886,579
Worcester Polytechnic Institute	12.630	10574-GR	Basic, Applied, and Advanced Research in Science and Engineering	-	29,317
Basic, Applied, and Advanced Research in Science and Engineering Total				<u>788,367</u>	<u>9,676,537</u>
Air force Office of Scientific Research	12.800	Direct	Air Force Defense Research Sciences Program	94,435	1,523,799
Air force Research Laboratory	12.800	Direct	Air Force Defense Research Sciences Program	-	159,685
Boeing Aircraft Corporation	12.800	PC #1830245	Air Force Defense Research Sciences Program	-	6,069
Brown University	12.800	FA95501810214	Air Force Defense Research Sciences Program	-	45,638
Brown University	12.800	FA95502110354	Air Force Defense Research Sciences Program	-	221,963
Florida A and M University	12.800	C-5131	Air Force Defense Research Sciences Program	-	8,804
General Dynamics Mission Systems, Inc.	12.800	22-SC-0003	Air Force Defense Research Sciences Program	-	56,995
Lockheed Martin	12.800	PO 4104566134	Air Force Defense Research Sciences Program	52,023	67,926
Nextflex	12.800	AGMT 11.08.2021	Air Force Defense Research Sciences Program	-	247,813
Raytheon Company	12.800	PO 4202138290	Air Force Defense Research Sciences Program	-	(16,327)
State University of N.Y. at Binghamton	12.800	85442	Air Force Defense Research Sciences Program	-	29,446
State University of N.Y. at Binghamton	12.800	87599	Air Force Defense Research Sciences Program	-	9,952
University of Arkansas System	12.800	UA2020-120	Air Force Defense Research Sciences Program	-	80,785
University of California Santa Barbara	12.800	KK2033	Air Force Defense Research Sciences Program	-	158,440
University of Southern California	12.800	FA95501910213	Air Force Defense Research Sciences Program	-	29,610
Air Force Defense Research Sciences Program Total				<u>146,458</u>	<u>2,630,598</u>
National Security Agency	12.900	Direct	Language Grant Program	-	1,773
Defense Adv Research Projects Agency	12.910	Direct	Research and Technology Development	239,111	2,078,529
Naval Information Warfare Center Pacific	12.910	Direct	Research and Technology Development	7,491	134,671
California Institute of Technology	12.910	75-1097879	Research and Technology Development	-	86,698
Massachusetts Institute of Technology	12.910	26991	Research and Technology Development	-	36,638
State University of N.Y. at Binghamton	12.910	93780	Research and Technology Development	-	485
University of Pennsylvania	12.910	FA87501820117	Research and Technology Development	-	637,170
University of Southern California	12.910	N660011924032	Research and Technology Development	-	259,060
Research and Technology Development Total				<u>246,602</u>	<u>3,233,251</u>
ABT Associates Inc.	12.U01	53129	Department of Defense Contracts	-	29,571
ABT Associates Inc.	12.U02	52486	Department of Defense Contracts	-	41,610
Air force Research Laboratory	12.U03	FA9453-18-C-0056	Department of Defense Contracts	-	405,328
Ailon Science and Technology	12.U04	SCR1158132	Department of Defense Contracts	-	99,995
American Lightweight Matts Manufact Inst	12.U05	N000142190010	Department of Defense Contracts	-	136,471
Antennasys, Inc	12.U06	FA875020C1008	Department of Defense Contracts	-	46
Antrust LLC.	12.U07	H9823021C0301	Department of Defense Contracts	-	293,862
Applied Nanofemto Technologies LLC.	12.U08	34478	Department of Defense Contracts	-	26,724
Applied Nanofemto Technologies LLC.	12.U09	36594	Department of Defense Contracts	-	42,986
Applied Nanotech, Inc.	12.U10	ANI PO 93631	Department of Defense Contracts	-	1,780
Applied Research Associates, Inc.	12.U11	FA865020C1132	Department of Defense Contracts	-	150,466
Arctos, LLC.	12.U12	165852-18F5828-19-19-C1	Department of Defense Contracts	-	22,346
Bae Systems	12.U13	HR001121C0133	Department of Defense Contracts	-	211,045
Beth Israel Deaconess Medical Center	12.U14	01062417	Department of Defense Contracts	-	83,684
Boston College	12.U15	5107822-1	Department of Defense Contracts	-	(31,392)
Charles River Analytics	12.U16	HR001120C0031	Department of Defense Contracts	-	323,684
Charles River Analytics	12.U17	SC1623301	Department of Defense Contracts	-	13,748
Defense Adv Research Projects Agency	12.U18	HR00112190041	Department of Defense Contracts	-	542,848
Defense Adv Research Projects Agency	12.U19	HR00112190049	Department of Defense Contracts	216,887	502,933
Defense Logistics Agency	12.U20	SP4701-19-C-0064	Department of Defense Contracts	-	232,334
FTL Labs Corporation	12.U21	W81XWH19C0078	Department of Defense Contracts	-	5,130
FTL Labs Corporation	12.U22	N6833521C0238	Department of Defense Contracts	-	74,709
FTL Labs Corporation	12.U23	W81XWH18C0324	Department of Defense Contracts	-	(398)

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Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
Gearjump Technologies LLC.	12.U24	W81XWH1920028	Department of Defense Contracts	-	72,906
Government of Israel	12.U25	PO 4440863603	Department of Defense Contracts	-	58,643
Henry M. Jackson Foundation	12.U26	W81XWH20C0031	Department of Defense Contracts	-	90,562
Jacobs Technology Inc.	12.U27	N0017318D2002N0017321F2014	Department of Defense Contracts	-	9,665
Johns Hopkins University	12.U28	W911QY2090012	COVID-19 Miscellaneous Department of Defense	-	145,803
Kri at Northeastern University, LLC.	12.U29	W911QY1990011	Department of Defense Contracts	-	533,302
Lowell Digisonde International, LLC.	12.U30	LDI20151027-1	Department of Defense Contracts	-	25
MA Development Finance Agency	12.U31	MOU Dated 10/16/2017	Miscellaneous Department of Defense	-	15,000
MIT Lincoln Laboratory	12.U32	FA870215D0001	Department of Defense Contracts	-	55,580
MIT Lincoln Laboratory	12.U33	PO 7000475731	Department of Defense Contracts	-	(92)
Nanocomp Technologies, Inc.	12.U34	N6893621C0019	Department of Defense Contracts	-	350,790
National Center for Manufacturing Science	12.U35	HQ00341520007	Department of Defense Contracts	-	546,949
Naval Air Warfare Center Aircraft Divisi	12.U36	N6893621P0392	Department of Defense Contracts	-	69,606
Naval Research Laboratory	12.U37	N0017320P0579	Department of Defense Contracts	-	92,247
Naval Research Laboratory	12.U38	N00173-19-P-7134	Department of Defense Contracts	-	2,144
Nextflex	12.U39	FA8650-15-2-5401	Department of Defense Contracts	-	(3,183)
NP Photonics, Inc.	12.U40	35223	Department of Defense Contracts	-	222,051
Optowares Incorporated	12.U41	STTR Funding Agreement dated 1/15/2020	Department of Defense Contracts	-	(6,511)
Physical Sciences Incorporated	12.U42	HR001121C0032	Department of Defense Contracts	-	148,175
Pison Technology, Inc.	12.U43	LSC2020-0000100	Department of Defense Contracts	-	152,351
Raywatch	12.U44	FA8051-17-C-0003	Department of Defense Contracts	-	(29,900)
Rowan University	12.U45	W911NF1920152	Department of Defense Contracts	-	473,432
Sensimetrics Corporation	12.U46	W81XWH19C0087	Department of Defense Contracts	-	46,850
Silicon Space Technology	12.U47	FA9453-09-C0029	Miscellaneous Department of Defense	-	2,447
Soar Technology, Inc.	12.U48	SC-20-031	Department of Defense Contracts	-	291,854
Spectral Sciences, Inc.	12.U49	3583-001-47	Department of Defense Contracts	-	34,791
State University of N.Y. at Binghamton	12.U50	82004f1148148-3	Department of Defense Contracts	-	(1,940)
Stevens Institute of Technology	12.U51	2103140-20	Department of Defense Contracts	-	824
Stevens Institute of Technology	12.U52	HQ003419D0003	Department of Defense Contracts	-	99,978
Stevens Institute of Technology	12.U53	W15KKN18D0040	Department of Defense Contracts	-	107,002
Strategic Environ Research and Dev Prog	12.U54	W912HQ20P0027	Department of Defense Contracts	517	58,362
Technical Data Analysis, Inc.	12.U55	N6833520C0244	Department of Defense Contracts	-	3,168
Tipd, LLC.	12.U56	35686	Department of Defense Contracts	-	58,191
Triton Systems, Inc.	12.U57	TSI-2580-19-108911	Department of Defense Contracts	-	19,145
Triton Systems, Inc.	12.U58	TSI-2625-19-2020031	Department of Defense Contracts	-	16,444
Two Six Technologies	12.U59	HR00112190125	Department of Defense Contracts	-	158,726
U.S. Department of Defense	12.U60	W912HQ20P0109	Department of Defense Contracts	17,852	153,836
U.S. Department of The Army	12.U61	W50NH921C0015	Department of Defense Contracts	-	4,024,973
U.S. Department of The Army	12.U62	W911W5-16-C-0006	Department of Defense Contracts	-	1,381,020
University of Illinois	12.U63	HR00112290063	Department of Defense Contracts	-	48,531
University of Southern California	12.U64	201919051600007	Department of Defense Contracts	-	456,205
University of Southern California	12.U65	89341790	Department of Defense Contracts	-	(2,310)
University of Southern California	12.U66	94671240	Department of Defense Contracts	-	185,246
University of Washington	12.U67	UWSC13444 BPO 62560	Department of Defense Contracts	-	23,040
Wichita State University	12.U68	22-00952	Department of Defense Contracts	-	4,609
Winchester Technologies, LLC.	12.U69	HR00112190064	COVID-19 Department of Defense Contracts	-	(1,553)
Woods Hole Oceanographic Institution	12.U70	W912HQ19C0040	Department of Defense Contracts	4,772	4,772
Yale University	12.U71	HR00112190136	Department of Defense Contracts	-	90,680
Department of Defense Total				4,102,489	50,942,716
Department of Education					
MA Dept of Elementary & Secondary Ed	84.002	340-377606-2021-1255	Adult Education - Basic Grants to States	-	61,051
University of Georgia	84.017	P017A170020	International Research and Studies	-	281
U.S. Department of Education	84.021	Direct	Overseas Program- Group Projects Abroad	-	60,043
Association on Higher ED and Disability	84.116	P116D150005	Fund for the Improvement of Postsecondary Education	-	6,898
U.S. Department of Education	84.133	Direct	National Institute on Disability and Rehabilitation Research	-	6
U.S. Department of Education	84.200	Direct	Graduate Assistance in Areas of National Need	-	92,705
Nebraska Department of Education	84.235	H235N15004	Rehabilitation Services Demonstration and Training Programs	-	(1)
U.S. Department of Education	84.299B	Direct	Professional Development Grants	-	235,185
U.S. Department of Education	84.305	Direct	Education Research, Development and Dissemination	40,767	333,204
Pennsylvania State University	84.305	R305T210087	Education Research, Development and Dissemination	-	8,488
University of South Florida	84.305	1776-1058-00-A	Education Research, Development and Dissemination	-	198,640
University of Southern California	84.305	104806502	Education Research, Development and Dissemination	-	47,184

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WestEd	84.305	R305A190256	Education Research, Development and Dissemination	-	313,419
Education Research, Development and Dissemination Total				<u>40,767</u>	<u>900,935</u>
U.S. Department of Education	84.324A	Direct	Exploring How Transfer-of-Rights and Guardianship Discussions May Affect Transition Outcomes for Students with Intellectual Disabilities	37,943	512,414
U.S. Department of Education	84.324B	Direct	Special Education - Research and Innovation to Improve Services and Results for Children with Disabilities	-	53,736
University of California Regents	84.324	S001031	Research in Special Education	-	167,765
University of Connecticut	84.324	146642408	Research in Special Education	-	170,373
Research in Special Education Total				<u>-</u>	<u>338,138</u>
U.S. Department of Education	84.325	Direct	Special Education - Personnel Development to Improve Services and Results for Children with Disabilities	-	621,268
Arizona State University	84.325	ASUB00000969	Special Education - Personnel Development to Improve Services and Results for Children with Disabilities	-	62,164
Special Education - Personnel Development to Improve Services and Results for Children with Disabilities Total				<u>-</u>	<u>683,432</u>
U.S. Department of Education	84.325K	Direct	Special Education - Personnel Development to Improve Services and Results for Children with Disabilities: Interdisciplinary Preparation in Special Education, Early Intervention, and Related Services for Personnel Serving Children	-	803,396
U.S. Department of Education	84.335	Direct	Child Care Access Means Parents in School	-	232,619
U.S. Department of Education	84.407B	Direct	Coordinating Center for Transition and Postsecondary Programs for Students with Intellectual Disabilities	32,716	204,700
U.S. Department of Education	84.407C	Direct	Transition Programs for Students With Intellectual Disabilities Into Higher Education	-	482,400
National Writing Project	84.411A	U411A160004	Education Innovation and Research Grants - Expansion Grants	-	15,546
Department of Education Total				<u>111,426</u>	<u>4,683,484</u>
Department of Energy					
Argonne National Labs	81.036	Direct	Inventions and Innovations	-	25,246
U.S. Department of Energy	81.049	Direct	Office of Science Financial Assistance Program	441,349	5,442,723
Boston University	81.049	DESC0022194	Office of Science Financial Assistance Program	-	6,688
Luna Labs USA, LLC.	81.049	3779-DOE-1S/UML	Office of Science Financial Assistance Program	-	271
Luna Labs USA, LLC.	81.049	389601UMASS	Office of Science Financial Assistance Program	-	41,534
Maat Energy Company	81.049	Agmt03312021	Office of Science Financial Assistance Program	-	48,757
Marine Biological Laboratory	81.049	DE-SC0021093	Office of Science Financial Assistance Program	-	80,002
Massachusetts Institute of Technology	81.049	DE-SC0020181	Office of Science Financial Assistance Program	-	34,753
Stanford University	81.049	DE-SC0020205	Office of Science Financial Assistance Program	-	26,846
Texas Tech University	81.049	21E083-01	Office of Science Financial Assistance Program	-	46,567
The Remade Institute	81.049	Subaward dated 9/1/2019	Office of Science Financial Assistance Program	-	(15)
University of Delaware	81.049	DE-SC0001004	Office of Science Financial Assistance Program	-	203,472
University of Delaware	81.049	DESC0021166	Office of Science Financial Assistance Program	-	95,678
University of Nevada	81.049	117GC000056	Office of Science Financial Assistance Program	-	1,015
University of North Carolina	81.049	DE-SC0015376-002	Office of Science Financial Assistance Program	-	52,404
University of Pennsylvania	81.049	578218	Office of Science Financial Assistance Program	-	70,079
University of Pennsylvania	81.049	DE-SC0022238	Office of Science Financial Assistance Program	-	106,750
University of South Carolina	81.049	DE-SC0021655	Office of Science Financial Assistance Program	-	6,632
Office of Science Financial Assistance Program Total				<u>441,349</u>	<u>6,264,156</u>
U.S. Department of Energy	81.057	Direct	University Coal Research	-	20,382
U.S. Department of Energy	81.086	Direct	Conservation Research and Development	160,081	900,723
Inventwood LLC.	81.086	SRA_DOE_1.6.22	Conservation Research and Development	-	34,394
University of Central Florida	81.086	16226A14	Conservation Research and Development	-	60,846
Conservation Research and Development Total				<u>160,081</u>	<u>995,963</u>
U.S. Department of Energy	81.087	Direct	Renewable Energy Research and Development	6,971	888,402
NY State Energy Res and Dev Authority	81.087	DE-EE0008930	Renewable Energy Research and Development	-	231,846
The Remade Institute	81.087	20-01-MM-4130	Renewable Energy Research and Development	-	251,669
University of South Carolina	81.087	20-4038	Renewable Energy Research and Development	-	98,723
University of Wisconsin Madison	81.087	DEEE0009285	Renewable Energy Research and Development	-	73,798
Renewable Energy Research and Development Total				<u>6,971</u>	<u>1,544,438</u>

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U.S. Department of Energy	81.117	Direct	Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance	-	330,737
Pace University	81.117	DE-EE0008277	Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance	-	213,958
Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance Total				-	<u>544,695</u>
U.S. Department of Energy	81.121	Direct	Nuclear Energy Research, Development and Demonstration	172,954	495,867
UHV Technologies, Inc.	81.135	Subaward dated 8/30/2017	Advanced Research Projects Agency - Energy	-	(281)
University of Michigan	81.135	DE-AR0001413	Advanced Research Projects Agency - Energy	-	22,075
Advanced Research Projects Agency - Energy Total				-	<u>21,794</u>
ABT Associates Inc.	81.U01	Professional Services Agreement No. 51787	Department of Energy Contracts	-	(20)
Argonne National Labs	81.U02	0F-60013	Department of Energy Contracts	-	968
Bechtel Marine Propulsion Corp	81.U03	PO# 7013868	Department of Energy Contracts	-	27,727
Brookhaven National Laboratory	81.U04	357998	Department of Energy Contracts	-	176,291
Brookhaven National Laboratory	81.U05	382748	Department of Energy Contracts	-	(11,249)
Brookhaven National Laboratory	81.U06	PO# 349004	Department of Energy Contracts	-	9,728
Brookhaven National Laboratory	81.U07	390038	Department of Energy Contracts	-	623,545
Brookhaven National Laboratory	81.U08	402350	Department of Energy Contracts	-	6,701
Brookhaven National Laboratory	81.U09	233969	Department of Energy Contracts	-	456,445
Honeywell Aerospace	81.U10	PO N000338943	Department of Energy Contracts	-	26,280
Jefferson National Accelerator Facility	81.U11	PO 20-D1030	Department of Energy Contracts	-	18,920
Lawrence Berkeley Natl Lab U-California	81.U12	7457694	Department of Energy Contracts	-	113,544
Lawrence Berkeley Natl Lab U-California	81.U13	7557409	Department of Energy Contracts	-	424
Lawrence Livermore Natl Lab U-California	81.U14	B640690	Department of Energy Contracts	-	49,159
Nanocomp Technologies, Inc.	81.U15	RSA dated 1/29/2020	Department of Energy Contracts	-	6,624
National Nuclear Security Administration	81.U16	256732	Department of Energy Contracts	-	178,510
National Renewable Energy Lab	81.U17	SUB-2020-10137	Department of Energy Contracts	-	(3,880)
National Renewable Energy Lab	81.U18	SUB-2019-10008	Department of Energy Contracts	-	83,509
National Renewable Energy Lab	81.U19	2021-10593	Department of Energy Contracts	-	9,777
National Renewable Energy Lab	81.U20	SUB-2020-10275	Department of Energy Contracts	-	9,913
Pacific Northwest National Laboratory	81.U21	457681	Department of Energy Contracts	-	24,677
Sandia National Labs	81.U22	PO# 2172799	Department of Energy Contracts	-	26,804
Sandia National Labs	81.U23	PO# 2230645	Department of Energy Contracts	-	101,550
Sandia National Labs	81.U24	PO#2312723	Department of Energy Contracts	-	19,639
Sandia National Labs	81.U25	Standard PO 1770246	Department of Energy Contracts	-	(155)
Triton Systems, Inc.	81.U26	TSI-2486-17-106117	Department of Energy Contracts	-	22,344
Triton Systems, Inc.	81.U27	TSI-2654-20-20201244	Department of Energy Contracts	-	(6,432)
Department of Energy Total				<u>781,355</u>	<u>11,883,884</u>
Department of Health and Human Services					
Centers for Disease Control & Prevention	93.068	Direct	Chronic Diseases: Research, Control, and Prevention	-	94,643
MA Dept of Developmental Services	93.072	HHS-2010-AOA-LR-1018	Lifespan Respite Care Program	-	3
MA Department of Public Health	93.073	HH2500224084	Birth Defects and Developmental Disabilities - Prevention and Surveillance	-	2,377
Boston Children's Hospital	93.080	GENFD0002095156	Blood Disorder Program: Prevention, Surveillance, and Research	-	18,837
Harvard Pilgrim Health Care, Inc.	93.084	U54CK000484	Prevention of Disease, Disability, and Death by Infectious Diseases	-	1,509
Massachusetts General Hospital	93.084	239664	Prevention of Disease, Disability, and Death by Infectious Diseases	-	34,451
Prevention of Disease, Disability, and Death by Infectious Diseases Total				-	<u>35,960</u>
MA Dept of Agricultural Resources	93.103	016662-00002	Food and Drug Administration-Research	-	56,720
MA Dept of Agricultural Resources	93.103	U18FD005904	Food and Drug Administration-Research	-	278
Massachusetts Institute of Technology	93.103	R01FD007480	Food and Drug Administration-Research	-	44,688
Massachusetts Institute of Technology	93.103	S5505	Food and Drug Administration-Research	-	2,670
Food and Drug Administration-Research Total				-	<u>104,356</u>
Health Resources Service Administration	93.107	Direct	Area Health Education Centers	554,549	840,376
Health Resources Service Administration	93.107	Direct/1 T1K HP391910100	COVID-19 Area Health Education Centers	5,778	6,240
Area Health Education Centers Total				<u>560,327</u>	<u>846,616</u>
Health Resources Service Administration	93.110	Direct	Maternal and Child Health Federal Consolidated Programs	222,873	802,642
Icahn School of Medicine at Mount Sinai	93.110	0253-6540-4609	Maternal and Child Health Federal Consolidated Programs	-	28,865
Langston University	93.110	LU 5-17047-1 / P0176651	Maternal and Child Health Federal Consolidated Programs	-	2,318
Maternal and Child Health Federal Consolidated Programs Total				<u>222,873</u>	<u>833,825</u>

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National Institutes of Health	93.113	Direct	Environmental Health	76,266	1,672,765
Wayne State University	93.113	R01ES028298	Environmental Health	-	68,771
Wayne State University	93.113	R01ES030942	Environmental Health	-	111,186
Wayne State University	93.113	WSU2204	Environmental Health	-	80,118
Environmental Health Total				<u>76,266</u>	<u>1,932,840</u>
National Institutes of Health	93.121	Direct	Oral Diseases and Disorders Research	16,220	1,361,521
Crealy Microtech, Inc.	93.121	CRE-UMA-01	Oral Diseases and Disorders Research	-	9,872
George Washington University	93.121	18-M45	Oral Diseases and Disorders Research	-	83,169
New York University	93.121	F1838-02	Oral Diseases and Disorders Research	-	26,877
Ohio State University	93.121	R01DE025447	Oral Diseases and Disorders Research	-	(39)
Rand Corporation	93.121	SCON-00000369	Oral Diseases and Disorders Research	-	89,951
University of Colorado	93.121	1558985	Oral Diseases and Disorders Research	-	171,822
Oral Diseases and Disorders Research Total				<u>16,220</u>	<u>1,742,973</u>
Centers for Disease Control & Prevention	93.135	Direct	Centers for Research and Demonstration for Health Promotion and Disease Prevention	525,145	1,233,927
Centers for Disease Control & Prevention	93.135	Direct/6 U48DP006381-02-02	COVID-19 Centers for Research and Demonstration for Health Promotion and Disease Prevention	-	348,309
Centers for Research and Demonstration for Health Promotion and Disease Prevention Total				<u>525,145</u>	<u>1,582,236</u>
Centers for Disease Control & Prevention	93.136	Direct	Injury Prevention and Control Research and State and Community Based Programs	-	87,279
Johns Hopkins University	93.136	2004991191	Injury Prevention and Control Research and State and Community Based Programs	-	36,050
MA Department of Public Health	93.136	INTF4107H78500224100_VO_POS 15970	COVID-19 Injury Prevention and Control Research and State and Community Based Programs	-	8,574
MA Department of Public Health	93.136	INTF6410H78500224086	Injury Prevention and Control Research and State and Community Based Programs	-	7,014
MA Department of Public Health	93.136	INTF6410H78500224094	Injury Prevention and Control Research and State and Community Based Programs	-	33,886
Injury Prevention and Control Research and State and Community Based Programs Total				<u>-</u>	<u>172,803</u>
Boston Public Health Commission	93.137	FY22023244	COVID-19 Community Programs to Improve Minority Health Grant Program	-	185,712
National Institutes of Health	93.142	Direct	NIEHS Hazardous Waste Worker Health and Safety Training	583,205	1,345,127
National Institutes of Health	93.142	Direct/2U45ES006172-30S1, 3U45ES006172-29S2, -31S1	COVID-19 NIEHS Hazardous Waste Worker Health and Safety Training	210,366	307,985
NIEHS Hazardous Waste Worker Health and Safety Training Total				<u>793,571</u>	<u>1,653,112</u>
National Institutes of Health	93.143	Direct	NIEHS Superfund Hazardous Substances-Basic Research and Education	45,000	216,327
Health Resources Service Administration	93.145	Direct	HIV-Related Training and Technical Assistance	1,765,418	2,421,262
Health Resources Service Administration	93.145	Direct/H1LHA37345-01-00	COVID-19 HIV-Related Training and Technical Assistance	17,366	17,366
HIV-Related Training and Technical Assistance Total				<u>1,782,784</u>	<u>2,438,628</u>
Lawrence Berkeley Natl Lab U-California	93.172	Direct	Human Genome Research	-	49,274
National Institutes of Health	93.172	Direct	Human Genome Research	816,790	2,796,114
Boston Children's Hospital	93.172	GENFD000209156	Human Genome Research	-	17,427
The Broad Institute	93.172	5000273-5500000908	Human Genome Research	-	(636)
University of Illinois	93.172	0114840-18572	Human Genome Research	-	32,469
Human Genome Research Total				<u>816,790</u>	<u>2,894,648</u>
National Institutes of Health	93.173	Direct	Research Related to Deafness and Communication Disorders	38,612	1,425,618
Massachusetts Eye & Ear Infirmary	93.173	530819	Research Related to Deafness and Communication Disorders	-	125,863
University of Wisconsin Madison	93.173	0000001799	Research Related to Deafness and Communication Disorders	-	109,289
Research Related to Deafness and Communication Disorders Total				<u>38,612</u>	<u>1,660,770</u>
Centers for Disease Control & Prevention	93.185	Direct	Immunization Research, Demonstration, Public Information and Education-Training and Clinical Skills Improvement Projects	31,060	830,525
Centers for Disease Control & Prevention	93.185	Direct/6U01IP001122-05	COVID-19 Immunization Research, Demonstration, Public Information and Education-Training and Clinical Skills Improvement Projects	-	(21,227)
Immunization Research, Demonstration, Public Information and Education-Training and Clinical Skills Improvement Projects Total				<u>31,060</u>	<u>809,298</u>
National Institutes of Health	93.213	Direct	Research and Training in Complementary and Integrative Health	-	436,194
Boston Medical Center	93.213	01_UMM_05378	Research and Training in Complementary and Integrative Health	-	5,450
Brightoutcome	93.213	AT010460-S1	Research and Training in Complementary and Integrative Health	-	(45)

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Brown University	93.213	1 UH2 at008145-02	Research and Training in Complementary and Integrative Health	-	1,124
Case Western Reserve University	93.213	RESS15758	Research and Training in Complementary and Integrative Health	-	57,302
Miriam Hospital	93.213	7147232	Research and Training in Complementary and Integrative Health	-	70,195
Physical Sciences Incorporated	93.213	10-02897-8049-46	Research and Training in Complementary and Integrative Health	-	616
Rush University Medical Center	93.213	R01 AT009680-01A1	Research and Training in Complementary and Integrative Health	-	14,923
Yale University	93.213	4 UH3 AT 009758-03	Research and Training in Complementary and Integrative Health	-	17,597
Yale University	93.213	GR110377 (CON-80002483)	Research and Training in Complementary and Integrative Health	-	25,010
Research and Training in Complementary and Integrative Health Total				-	<u>628,366</u>
Agency for Healthcare Research & Quality	93.226	Direct	Research on Healthcare Costs, Quality and Outcomes	45,433	1,165,253
Boston Children's Hospital	93.226	U18HS025299	Research on Healthcare Costs, Quality and Outcomes	-	4,939
Boston Medical Center	93.226	7437	Research on Healthcare Costs, Quality and Outcomes	-	8,369
Boston University	93.226	1R01HS026495-01	Research on Healthcare Costs, Quality and Outcomes	-	(2,122)
Harvard Medical School	93.226	153372.5112648.0002	Research on Healthcare Costs, Quality and Outcomes	-	21,946
Harvard Medical School	93.226	153372.5120748.0005	Research on Healthcare Costs, Quality and Outcomes	-	100,306
Massachusetts General Hospital	93.226	5R01HS025718-02	Research on Healthcare Costs, Quality and Outcomes	-	22,117
Yale University	93.226	5U18HS016978-12	Research on Healthcare Costs, Quality and Outcomes	-	(101)
Yale University	93.226	CON-80003358 (GR114879)	Research on Healthcare Costs, Quality and Outcomes	-	112,562
Yale University	93.226	GR107652 (CON-80001941)	Research on Healthcare Costs, Quality and Outcomes	-	(19)
Yale University	93.226	GR111680 (CON-800012816)	Research on Healthcare Costs, Quality and Outcomes	-	189,193
Yale University	93.226	U18HS016978	Research on Healthcare Costs, Quality and Outcomes	-	245
Research on Healthcare Costs, Quality and Outcomes Total				<u>45,433</u>	<u>1,622,688</u>
National Institutes of Health	93.233	Direct	National Center on Sleep Disorders Research	151,944	702,816
National Institutes of Health	93.242	Direct	Mental Health Research Grants	1,862,032	11,570,931
U.S. Dept of Health and Human Services	93.242	Direct	Mental Health Research Grants	53,383	(6,022)
Adaptive Testing Technologies	93.242	R44MH118780	Mental Health Research Grants	-	314,203
Boston Medical Center	93.242	03_UMASS MS_04141	Mental Health Research Grants	-	9,591
Boston Medical Center	93.242	05_UMASS_04764	Mental Health Research Grants	-	74,342
Boston Medical Center	93.242	R01MH121599-01	Mental Health Research Grants	-	36,144
Boston University School of Public Hlth	93.242	1R01MG119193-01A1	Mental Health Research Grants	-	49,844
Brigham and Women's Hospital	93.242	124807	Mental Health Research Grants	-	91,872
Feinstein Institute for Medical Research	93.242	R01 MH 120313-01	Mental Health Research Grants	-	22,454
Icahn School of Medicine at Mount Sinai	93.242	R01MH106056	Mental Health Research Grants	-	117,108
Lawrence Berkeley Natl Lab U-California	93.242	7446241	Mental Health Research Grants	-	84,923
Mclean Hospital	93.242	401677	Mental Health Research Grants	-	4,389
Michigan State University	93.242	RC108066UMASS	Mental Health Research Grants	-	16,031
Microbrightfield, Inc.	93.242	MH126934-01	Mental Health Research Grants	-	24,836
Oregon Health and Science University	93.242	1014994_UMASS	Mental Health Research Grants	-	7,350
Praxis, Inc.	93.242	SRA-Byatt	Mental Health Research Grants	-	124,720
Rand Corporation	93.242	R01MH121256	Mental Health Research Grants	-	4,102
University of Michigan	93.242	K00011457	Mental Health Research Grants	-	29,874
University of Michigan	93.242	PO 3008335634/SUBK00014265	Mental Health Research Grants	-	38,055
University of Michigan	93.242	SUBK00014976	Mental Health Research Grants	-	22,688
University of North Carolina	93.242	5 U01 MH110925-03	Mental Health Research Grants	-	690
University of North Carolina	93.242	516171	Mental Health Research Grants	-	32,269
Mental Health Research Grants Total				<u>1,915,415</u>	<u>12,670,494</u>
Substance Abuse and Mental Health Serv	93.243	Direct	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	571,780	1,730,724
Baystate Medical Center, Inc.	93.243	21219-1	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	16,149
Baystate Medical Center, Inc.	93.243	21220-1	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	4,320
Baystate Medical Center, Inc.	93.243	U79 SM063204	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	6,853
Executive Office of the Trial Court	93.243	H79TI081925	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	66,084
Franklin County Sheriff's Office	93.243	21UMASSSAMCONFY21-23	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	113,960
Franklin County Sheriff's Office	93.243	FCSO 118-1929	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	18,382

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Franklin County Sheriff's Office	93.243	H79T1084139	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	52,214
MA Department of Public Health	93.243	INTF4107H78500224088	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	11,619
University of California Regents	93.243	1647 G UA158	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	40,196
Washington State Health Care Authority	93.243	H79SM061705	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	2
Substance Abuse and Mental Health Services-Projects of Regional and National Significance Total				<u>571,780</u>	<u>2,060,503</u>
Health Resources Service Administration	93.247	Direct	Advanced Nursing Education Workforce Grant Program	686,044	869,471
Centers for Disease Control & Prevention	93.262	Direct	Occupational Safety and Health Program	(1,640)	118,571
Natl Inst for Occupational Safety&Health	93.262	Direct	Occupational Safety and Health Program	564,094	1,689,207
The Center for Construction Resear & Train	93.262	3001-1109	Occupational Safety and Health Program	-	5
The Center for Construction Resear & Train	93.262	3001-1209	Occupational Safety and Health Program	-	67,063
The Center for Construction Resear & Train	93.262	3001-1309	Occupational Safety and Health Program	-	159,933
The Mary Imogene Bassett Hospital	93.262	5U54OH007542 UML5	Occupational Safety and Health Program	-	29,001
The Mary Imogene Bassett Hospital	93.262	5U54OH007542 UML6	Occupational Safety and Health Program	-	159,244
University of Connecticut Health Center	93.262	UCHC7-152428898; P0568370	Occupational Safety and Health Program	-	274,867
Occupational Safety and Health Program Total				<u>562,454</u>	<u>2,497,891</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	-	219,560
National Institutes of Health	93.273	Direct	Alcohol Research Programs	190,098	3,213,018
Beth Israel Deaconess Medical Center	93.273	01061881	Alcohol Research Programs	-	(1,660)
Michigan State University	93.273	RC111989B	Alcohol Research Programs	-	63,899
Praxis, Inc.	93.273	R42AA026751	Alcohol Research Programs	-	250,399
Praxis, Inc.	93.273	SMELSON	Alcohol Research Programs	-	(407)
Rhode Island Hospital	93.273	7017137290	Alcohol Research Programs	-	4,203
University of Wisconsin Madison	93.273	0000001875	Alcohol Research Programs	-	50,524
University of Wisconsin Madison	93.273	R34 AA025675-01	Alcohol Research Programs	-	26,947
Alcohol Research Programs Total				<u>190,098</u>	<u>3,606,923</u>
National Institutes of Health	93.279	Direct	Drug Abuse and Addiction Research Programs	46,573	2,799,734
Albert Einstein College of Medicine	93.279	321012	Drug Abuse and Addiction Research Programs	-	13,618
Baystate Medical Center, Inc.	93.279	18207	Drug Abuse and Addiction Research Programs	-	26,641
Baystate Medical Center, Inc.	93.279	19142	Drug Abuse and Addiction Research Programs	-	216,628
Continueyou, LLC.	93.279	1R44DA046151	Drug Abuse and Addiction Research Programs	-	(869)
Continueyou, LLC.	93.279	4 R44 DA046151-02	Drug Abuse and Addiction Research Programs	-	103,723
Florida International University	93.279	000218	Drug Abuse and Addiction Research Programs	-	14,350
George Mason University	93.279	E2056602	Drug Abuse and Addiction Research Programs	7,805	259,368
Hennepin Healthcare Research Institute	93.279	15390-14	Drug Abuse and Addiction Research Programs	-	13,286
Kaiser Foundation Research Institute	93.279	RNG210715-MPCI	Drug Abuse and Addiction Research Programs	-	11,857
Oregon Social Learning Center, Inc.	93.279	1-R24-DA051950-01	Drug Abuse and Addiction Research Programs	-	27,123
Oregon Social Learning Center, Inc.	93.279	R01DA041425	Drug Abuse and Addiction Research Programs	-	220,769
Q2i, LLC.	93.279	4 R42 DA049448-03	Drug Abuse and Addiction Research Programs	-	255,806
Tufts Medical Center	93.279	5021813_SERV	Drug Abuse and Addiction Research Programs	-	8,720
University of Wisconsin Madison	93.279	7R01DA041641-02	Drug Abuse and Addiction Research Programs	-	3,246
Virginia Polytechnic Inst and State Univ	93.279	432096-19340	Drug Abuse and Addiction Research Programs	-	17,847
Drug Abuse and Addiction Research Programs Total				<u>54,378</u>	<u>3,991,847</u>
National Institutes of Health	93.286	Direct	Discovery and Applied Research for Technological Innovations to Improve Human Health	3,490,755	7,345,246
National Institutes of Health	93.286	Direct/3 U54 HL143541-02S1	COVID-19 Discovery and Applied Research for Technological Innovations to Improve Human Health	769,717	4,776,943
National Institutes of Health	93.286	Direct/3 U54 HL143541-02S2	COVID-19 Discovery and Applied Research for Technological Innovations to Improve Human Health	11,569,920	44,962,459
University of Memphis	93.286	5-40926	Discovery and Applied Research for Technological Innovations to Improve Human Health	-	85,228
Worcester Polytechnic Institute	93.286	18-211110-01	Discovery and Applied Research for Technological Innovations to Improve Human Health	-	14,527
Discovery and Applied Research for Technological Innovations to Improve Human Health Total				<u>15,830,392</u>	<u>57,184,403</u>

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National Institutes of Health	93.307	Direct	Minority Health and Health Disparities Research	264,527	784,226
National Institutes of Health	93.307	Direct/R01 MD016883-02	COVID-19 Minority Health and Health Disparities Research	26,252	704,632
New York University School of Medicine	93.307	R01 MD013769-01	Minority Health and Health Disparities Research	-	83,573
Rand Corporation	93.307	R01MD014722	Minority Health and Health Disparities Research	-	25,015
University of New Mexico	93.307	3RJK6	Minority Health and Health Disparities Research	-	34,806
University of North Carolina	93.307	5115466	Minority Health and Health Disparities Research	-	3,921
Minority Health and Health Disparities Research Total				290,779	1,636,173
National Institutes of Health	93.310	Direct	Trans-NIH Research Support	1,612,280	5,944,871
Harvard Medical School	93.310	150280.5116406.0603	Trans-NIH Research Support	-	221,285
Harvard Pilgrim Health Care, Inc.	93.310	PH000615E	Trans-NIH Research Support	-	57,717
Henry ford Health System	93.310	B11170UMMS	Trans-NIH Research Support	1,142,911	1,449,554
Medical College of Wisconsin	93.310	5 U24HG010423-03	Trans-NIH Research Support	-	646,835
University of Missouri-Kansas City	93.310	00000000/00072663	COVID-19 Trans-NIH Research Support	-	38,004
University of North Carolina	93.310	5106194	Trans-NIH Research Support	-	356,739
University of North Carolina	93.310	5120926	COVID-19 Trans-NIH Research Support	-	13,276
University of Southern California	93.310	109717882	Trans-NIH Research Support	-	167,579
Trans-NIH Research Support Total				2,755,191	8,895,860
Centers for Disease Control & Prevention	93.318	Direct	Protecting and Improving Health Globally: Building and Strengthening Public Health Impact, Systems, Capacity and Security	-	(795)
University of Florida	93.326	SUB00003031	COVID-19 Strengthening Public Health through Surveillance, Epidemiologic Research, Disease Detection and Prevention	-	128,356
National Institutes of Health	93.350	Direct	National Center for Advancing Translational Sciences	288,801	6,879,793
Boston Medical Center	93.350	1 U01 TR002070-03	National Center for Advancing Translational Sciences	-	49,814
Boston Medical Center	93.350	7594	National Center for Advancing Translational Sciences	-	12,272
Boston University	93.350	4500003372	National Center for Advancing Translational Sciences	-	60,723
Rithim Biologics, Inc.	93.350	UMASS-01	National Center for Advancing Translational Sciences	-	2,055
University of Colorado	93.350	FY22.1126.063	National Center for Advancing Translational Sciences	-	93,614
University of Pittsburgh	93.350	AWD00000243/134445-12	National Center for Advancing Translational Sciences	-	1,532
National Center for Advancing Translational Sciences Total				288,801	7,099,803
National Institutes of Health	93.351	Direct	Research Infrastructure Programs	183,598	2,268,830
National Institutes of Health	93.351	Direct/3 P40 OD028116-01S1	COVID-19 Research Infrastructure Programs	153,553	154,685
National Institutes of Health	93.351	Direct/3 R24 OD026440-03S1	COVID-19 Research Infrastructure Programs	-	282,680
Research Infrastructure Programs Total				337,151	2,706,195
Geisinger Medical Center	93.353	646018UOM02	21st Century Cures Act - Beau Biden Cancer Moonshot	-	30,228
Tufts Univ Cummings Sch of Vet Med	93.353	4U01CA224153	21st Century Cures Act - Beau Biden Cancer Moonshot	-	37,654
Wake forest University	93.353	P50CA244693	21st Century Cures Act - Beau Biden Cancer Moonshot	-	365,531
21st Century Cures Act - Beau Biden Cancer Moonshot Total				-	373,413
U.S. Dept of Health and Human Services	93.360	Direct	Biomedical Advanced Research and Development Authority (BARDA), Biodefense	-	38,676
National Institutes of Health	93.361	Direct	Medical Countermeasure Development	82,208	893,403
Brigham and Women's Hospital	93.361	NR017034-03	Nursing Research	-	(179)
Dana Farber Cancer Institute	93.361	3R01NR016720-04S1	Nursing Research	-	14,517
New York University	93.361	F1526-02	Nursing Research	-	46,850
Nursing Research Total				82,208	954,591
University of Washington	93.387	UWSC12645	National and State Tobacco Control Program	-	82,621
National Institutes of Health	93.393	Direct	Cancer Cause and Prevention Research	1,383,007	4,938,448
Boston University	93.393	4500003666	Cancer Cause and Prevention Research	-	10,077
Massachusetts General Hospital	93.393	239377	Cancer Cause and Prevention Research	-	54,438
University of Wisconsin	93.393	173405330	Cancer Cause and Prevention Research	-	15,462
Cancer Cause and Prevention Research Total				1,383,007	5,018,425
National Institutes of Health	93.394	Direct	Cancer Detection and Diagnosis Research	325,917	835,842
National Institutes of Health	93.394	Direct/1 U01 CA261276-01	COVID-19 Cancer Detection and Diagnosis Research	-	888,950
Ge Global Research	93.394	401124937	Cancer Detection and Diagnosis Research	-	68,605
Memorial Sloan-Kettering Cancer Center	93.394	BD526731	Cancer Detection and Diagnosis Research	-	54,012
Tufts University	93.394	104318-00001	Cancer Detection and Diagnosis Research	-	3,962
University of Arkansas System	93.394	51599	Cancer Detection and Diagnosis Research	-	59,952
Cancer Detection and Diagnosis Research Total				325,917	1,911,323

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National Institutes of Health	93.395	Direct	Cancer Treatment Research	386,804	1,406,693
American College of Radiology	93.395	1821	Cancer Treatment Research	-	599,045
American College of Radiology	93.395	1822	Cancer Treatment Research	-	1,029,187
Children's Hospital of Philadelphia	93.395	A4LL1131	Cancer Treatment Research	-	29,516
Ernest Pharmaceuticals LLC.	93.395	UM Reference # 443	Cancer Treatment Research	-	37,986
Massachusetts General Hospital	93.395	234120	Cancer Treatment Research	-	201,843
Northwestern University	93.395	CA219013	Cancer Treatment Research	-	7,568
Pennsylvania State University	93.395	S002223-DHHS	Cancer Treatment Research	-	44,018
Pennsylvania State University	93.395	U01CA265709	Cancer Treatment Research	-	28,428
University of Virginia	93.395	5 R01 CA234478-04	Cancer Treatment Research	-	174,661
Cancer Treatment Research Total				<u>386,804</u>	<u>3,558,935</u>
National Institutes of Health	93.396	Direct	Cancer Biology Research	582,917	4,320,691
Boston Children's Hospital	93.396	1R01CA233671-01A1	Cancer Biology Research	-	(26,511)
Boston Children's Hospital	93.396	5R01CA233671-02	Cancer Biology Research	-	33,387
Carnegie Mellon University	93.396	1090703-454413	Cancer Biology Research	-	10,637
Dana Farber Cancer Institute	93.396	1172202	Cancer Biology Research	-	5,582
Dana Farber Cancer Institute	93.396	1172203	Cancer Biology Research	-	61,591
Duke University	93.396	A032494	Cancer Biology Research	-	254,091
Massachusetts General Hospital	93.396	229519	Cancer Biology Research	-	4,284
Texas A&M University	93.396	U01CA225566	Cancer Biology Research	-	145,126
University of Miami	93.396	OS00000128	Cancer Biology Research	-	15,952
Cancer Biology Research Total				<u>582,917</u>	<u>4,825,030</u>
National Institutes of Health	93.397	Direct	Cancer Centers Support Grants	-	1,297,526
Beth Israel Deaconess Medical Center	93.397	01063012	Cancer Centers Support Grants	-	11,615
Indiana University	93.397	8674	Cancer Centers Support Grants	-	25,847
Oregon Health and Science University	93.397	1010517-009-UMASS	Cancer Centers Support Grants	-	10,232
Cancer Centers Support Grants Total				<u>-</u>	<u>1,345,220</u>
National Institutes of Health	93.398	Direct	Cancer Research Manpower	-	1,072,527
Dana Farber Cancer Institute	93.398	R25CA214256	Cancer Research Manpower	-	26,278
Cancer Research Manpower Total				<u>-</u>	<u>1,098,805</u>
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	-	129,484
National Foundation for CDC & Prevention	93.421	41404	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	-	73,830
National Assoc of Chronic Disease Directors	93.421	1112020	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	-	72,764
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	-	123,045
NH 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	-	126,821
Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health Total				<u>-</u>	<u>525,944</u>
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	55,340	583,576
Administration for Community Living	93.433	Direct	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	72,011	1,112,493
U.S. Dept of Health and Human Services	93.433	Direct	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	179,686	1,121,310
Boston University	93.433	4500003701	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	207,807
Brandeis University	93.433	404244	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	10,305
Brandeis University	93.433	90DPGE0001-01-03-00	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	4,117
Elder Services of The Merrimack Valley	93.433	90ADPI0056-01-01	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	31,047
Langston University	93.433	LU 5-17045-1	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	110,926

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Langston University	93.433	LU 5-17045-1 / P0170680 (RRTC Y3)	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	55,943
Langston University	93.433	LU 5-17045-1 / P0170680 (RRTC)	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	(531)
Langston University	93.433	LU 5-17048-1 / P0176739	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	5,275
University of Illinois at Chicago	93.433	18180	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	37,259
University of Minnesota	93.433	74486 Subaward A007250503	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	87,398
ACL National Institute on Disability, Independent Living, and Rehabilitation Research Total				<u>251,697</u>	<u>2,783,349</u>
Elder Services of The Merrimack Valley	93.470	90ADPI0065	Alzheimer's Disease Program Initiative (ADPI)	-	47,125
Florida Development Disabilities Council	93.630	1022EM19H	Developmental Disabilities Basic Support and Advocacy Grants	-	5
Texas Council Developmental Disabilities	93.630	20139	Developmental Disabilities Basic Support and Advocacy Grants	102,582	131,327
Texas Council Developmental Disabilities	93.630	20213	Developmental Disabilities Basic Support and Advocacy Grants	120,051	131,044
Developmental Disabilities Basic Support and Advocacy Grants Total				<u>222,633</u>	<u>262,376</u>
U.S. Dept of Health and Human Services Administration for Community Living	93.631	Direct	Developmental Disabilities Projects of National Significance	-	(4)
	93.632	Direct/90DDDC005009-01-03	COVID-19 University Centers for Excellence in Developmental Disabilities Education, Research, and Service	-	33,659
U.S. Dept of Health and Human Services	93.632	Direct	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	53,134	582,745
Boston Children's Hospital	93.632	90DDUC0059-01-00	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	-	(66)
University Centers for Excellence in Developmental Disabilities Education, Research, and Service Total				<u>53,134</u>	<u>616,338</u>
Centers for Medicare & Medicaid Services	93.638	Direct	ACA-Transforming Clinical Practice Initiative: Practice Transformation Networks (PTNs)	(1,390)	(1,390)
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)	-	48,010
MA Dept of Public Health, Bsas	93.788	INTF2400H78500224399	Opioid STR	-	(2,582)
Massachusetts General Hospital	93.817	6 HITEP180042-01-04	Hospital Preparedness Program (HPP) Ebola Preparedness and Response Activities	-	42,585
National Institutes of Health	93.837	Direct	Cardiovascular Diseases Research	825,104	5,553,706
Augusta University	93.837	32623-2	Cardiovascular Diseases Research	-	113,516
Augusta University	93.837	36183-2	Cardiovascular Diseases Research	-	6,266
Boston Children's Hospital	93.837	GENFD0001858268	Cardiovascular Diseases Research	-	152,138
Boston University	93.837	4500002295	Cardiovascular Diseases Research	-	39,320
Boston University	93.837	4500002987	Cardiovascular Diseases Research	-	212,395
Boston University	93.837	4500003030	Cardiovascular Diseases Research	-	372,474
Brigham and Women's Hospital	93.837	113892	Cardiovascular Diseases Research	-	3,080
Harvard Medical School	93.837	150247-5113691-0008	Cardiovascular Diseases Research	-	229,466
Illinois Institute of Technology	93.837	A21-0003-S001	Cardiovascular Diseases Research	-	345,782
Massachusetts General Hospital	93.837	230189	Cardiovascular Diseases Research	-	309
Massachusetts General Hospital	93.837	236261	Cardiovascular Diseases Research	-	559
Massachusetts Institute of Technology	93.837	S4581/PO 164251	Cardiovascular Diseases Research	-	(4,632)
Miriam Hospital	93.837	710-7147188	Cardiovascular Diseases Research	-	9,336
New England Research Institute, Inc.	93.837	CT1500024	Cardiovascular Diseases Research	-	18,963
Northwestern University	93.837	60058632 UMMS	Cardiovascular Diseases Research	-	17,754
Rush University Medical Center	93.837	18052902-Sub02	Cardiovascular Diseases Research	-	7,416
Smith College	93.837	636076-01	Cardiovascular Diseases Research	-	7,897
The General Hospital Corporation	93.837	R01HL143070	Cardiovascular Diseases Research	-	65,047
University of Arizona	93.837	639661	Cardiovascular Diseases Research	-	91,251
University of Texas at Arlington	93.837	020GC0400	Cardiovascular Diseases Research	-	26,313
University of Vermont	93.837	AWD00000483SUB00000227	Cardiovascular Diseases Research	-	27,074
University of Wisconsin	93.837	830K513	Cardiovascular Diseases Research	-	475,910
Washington University	93.837	WU-18-434	Cardiovascular Diseases Research	-	39,169
Yale University	93.837	GR100590	Cardiovascular Diseases Research	-	26,591
Cardiovascular Diseases Research Total				<u>825,104</u>	<u>7,837,100</u>

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National Institutes of Health	93.838	Direct	Lung Diseases Research	535,760	4,936,489
Baystate Medical Center, Inc.	93.838	FED705-17120-1	Lung Diseases Research	-	18,139
Boston Medical Center	93.838	02_IMMS_06033	COVID-19 Lung Diseases Research	-	94,627
Columbia University Medical Center	93.838	4 UH3 HL40177-02	Lung Diseases Research	-	2,144
New York University School of Medicine	93.838	0T2HL156812	COVID-19 Lung Diseases Research	-	13,188
Wayne State University	93.838	WSU18011-A2	Lung Diseases Research	-	(689)
Lung Diseases Research Total				<u>535,760</u>	<u>5,063,898</u>
National Institutes of Health	93.839	Direct	Blood Diseases and Resources Research	837,510	2,235,116
Boston Children's Hospital	93.839	GENFD0001790235	Blood Diseases and Resources Research	-	275,667
Boston Children's Hospital	93.839	GENFD0001918940	Blood Diseases and Resources Research	-	228,911
Boston Children's Hospital	93.839	GENFD0001982611	Blood Diseases and Resources Research	-	225,801
Boston Medical Center	93.839	04-UMASS-04309	Blood Diseases and Resources Research	-	152,627
Oregon Health and Science University	93.839	5R01HL146549-02	Blood Diseases and Resources Research	-	54,944
University of Illinois	93.839	092352-18088	Blood Diseases and Resources Research	-	285,738
University of Pennsylvania	93.839	579833	Blood Diseases and Resources Research	-	90,404
Blood Diseases and Resources Research Total				<u>837,510</u>	<u>3,549,208</u>
National Institutes of Health	93.840	Direct	Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	754,585	1,331,053
Baystate Medical Center, Inc.	93.840	21-114-2	Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	-	102,011
Harvard School of Public Health	93.840	111267-5108404	Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	-	86,088
Health Strategy and Policy Institute	93.840	5 U01 HL138631	Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	-	149,766
Northwestern University	93.840	R01HL146884	Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	-	20,204
Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders Total				<u>754,585</u>	<u>1,689,122</u>
National Institutes of Health	93.846	Direct	Arthritis, Musculoskeletal and Skin Diseases Research	126,621	2,523,992
Boston University	93.846	4500003240	Arthritis, Musculoskeletal and Skin Diseases Research	-	16,621
Brigham and Women's Hospital	93.846	2019A018315	Arthritis, Musculoskeletal and Skin Diseases Research	-	20,816
Northwestern University	93.846	60058648 UMMS	Arthritis, Musculoskeletal and Skin Diseases Research	-	46,007
Purdue University	93.846	4102-85217	Arthritis, Musculoskeletal and Skin Diseases Research	-	34,776
Tufts Medical Center	93.846	5020891_SERV	Arthritis, Musculoskeletal and Skin Diseases Research	-	52,273
University of Colorado	93.846	FY21.1012.003	Arthritis, Musculoskeletal and Skin Diseases Research	-	13,897
Arthritis, Musculoskeletal and Skin Diseases Research Total				<u>126,621</u>	<u>2,708,382</u>
National Institutes of Health	93.847	Direct	Diabetes, Digestive, and Kidney Diseases Extramural Research	1,312,730	14,187,369
Boston Children's Hospital	93.847	PO#GENFD0001992893	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	34,521
Boston Medical Center	93.847	5P30DK046200-27S1	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	4,377
Boston University	93.847	4500003441	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	26,872
Boston University	93.847	4500003442	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	14,423
Boston University	93.847	4500004238	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	8,609
Brigham and Women's Hospital	93.847	120966	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	87,406
Duke University	93.847	A033213	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	34,273
Harvard University	93.847	1 DP3 DK111898	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	(3,875)
Jackson Laboratory	93.847	210357-1121-02	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	52,738
Kaiser Foundation Research Institute	93.847	OOS030228UMASS	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	12,354
Research Foundation - Cury	93.847	CM00005412-00	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	38,285
Temple University	93.847	261778-UMASS	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	69,721
Tulane University	93.847	TUL-HSC-558016-20/21	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	33,248
University of Alabama	93.847	1U01DK120379	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	25,173
University of Illinois at Chicago	93.847	18365	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	63,164
University of North Carolina	93.847	5114984	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	54,237
University of Pennsylvania	93.847	576045	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	173,114
University of Wisconsin Madison	93.847	5U54DK104310-07	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	29,655
University of Wisconsin Madison	93.847	5U54DK104310-08	Diabetes, Digestive, and Kidney Diseases Extramural Research	-	84,653
Diabetes, Digestive, and Kidney Diseases Extramural Research Total				<u>1,312,730</u>	<u>15,030,317</u>
Auburn University	93.852	R01 NS093941	National Syndromic Surveillance Program Community of Practice (NSSP CoP)	-	2,072
National Institutes of Health	93.853	Direct	Extramural Research Programs in the Neurosciences and Neurological Disorders	1,272,643	12,736,565

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Focalcool LLC.	93.853	R44NS095573	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	166,094
Gentuly, LLC.	93.853	RNS100163B	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	282
Massachusetts General Hospital	93.853	233020	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	5,576
Medical College of Wisconsin	93.853	PO#6188305	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	21,342
Nationwide Childrens Hospital	93.853	5 R33 NS1011166	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	20,141
New York University	93.853	F1067-02	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	62,348
Northwestern University	93.853	R01NS115571	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	254,745
Research Foundation of Suny	93.853	1169527-91875	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	144,928
Research Foundation of Suny	93.853	R21NS125845	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	29,689
Rutgers University	93.853	0818	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	47,436
The Broad Institute	93.853	5001355-5500001678	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	7,707
University of Cincinnati	93.853	010785-133390	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	170
University of Cincinnati	93.853	011266-133390	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	2,051
University of Cincinnati	93.853	012044-133390	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	3,964
University of Cincinnati	93.853	012765-133390	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	11,187
University of Illinois at Chicago	93.853	18211	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	52,295
University of Michigan	93.853	U01NS099046	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	25,786
Vanderbilt University	93.853	UNIV61473	Extramural Research Programs in the Neurosciences and Neurological Disorders	-	54,564
Extramural Research Programs in the Neurosciences and Neurological Disorders Total				<u>1,272,643</u>	<u>13,646,870</u>
National Institutes of Health	93.855	Direct	Allergy and Infectious Diseases Research	5,231,358	35,991,862
National Institutes of Health	93.855	Direct/ 3 R01 AI148784-03S1/COVID	COVID-19 Allergy and Infectious Diseases Research	-	21,467
National Institutes of Health	93.855	Direct/ 5 R01 AI159182-02	COVID-19 Allergy and Infectious Diseases Research	-	396,439
Benaroya Research Institute at Vm	93.855	5UM1AI109565	Allergy and Infectious Diseases Research	-	192,411
Beth Israel Deaconess Medical Center	93.855	01062298	Allergy and Infectious Diseases Research	-	69,876
Beth Israel Deaconess Medical Center	93.855	01063071	Allergy and Infectious Diseases Research	-	82,414
Beth Israel Deaconess Medical Center	93.855	01063717	Allergy and Infectious Diseases Research	-	109,628
Beth Israel Deaconess Medical Center	93.855	01063938/PO# 2220010039	Allergy and Infectious Diseases Research	-	7,320
Boston Children's Hospital	93.855	GEND0002110010	Allergy and Infectious Diseases Research	-	62,290
Boston Children's Hospital	93.855	GENFD0001945252	Allergy and Infectious Diseases Research	-	107,398
Boston Children's Hospital	93.855	HHSN272201400052C	Allergy and Infectious Diseases Research	-	(341)
Boston Children's Hospital	93.855	RSTFD0000678743	Allergy and Infectious Diseases Research	-	10,247
Boston College	93.855	A21AI150090	Allergy and Infectious Diseases Research	-	42,672
Brigham and Women's Hospital	93.855	119509	Allergy and Infectious Diseases Research	-	67,553
Brown University	93.855	00001168	Allergy and Infectious Diseases Research	-	151,525
Dana Farber Cancer Institute	93.855	1055118	Allergy and Infectious Diseases Research	-	115,718
Dartmouth College	93.855	R1525	Allergy and Infectious Diseases Research	-	26,638
Duke University	93.855	2 R01 AI125045-06	Allergy and Infectious Diseases Research	-	148,754
Emory University	93.855	A240843	Allergy and Infectious Diseases Research	-	545
Emory University	93.855	A455429	Allergy and Infectious Diseases Research	-	52,873
Epivax, Inc	93.855	Epivax/Research Agreement	Allergy and Infectious Diseases Research	-	72,826
Harvard Pilgrim Health Care, Inc.	93.855	U01AI153005-AH763	Allergy and Infectious Diseases Research	-	72,366
Hasentech LLC.	93.855	213173	Allergy and Infectious Diseases Research	-	60,252
Icahn School of Medicine at Mount Sinai	93.855	0255-A651-4609	Allergy and Infectious Diseases Research	-	155,405
Johns Hopkins University	93.855	2005246131	Allergy and Infectious Diseases Research	-	349,274
Massachusetts General Hospital	93.855	R56AI155505	Allergy and Infectious Diseases Research	-	29,583
Michigan Technological University	93.855	190600921	Allergy and Infectious Diseases Research	-	82,093
Microbiotx	93.855	PopBUMAmherst2020	Allergy and Infectious Diseases Research	-	133,699
Miriam Hospital	93.855	7147108SR	Allergy and Infectious Diseases Research	-	1,661
Miriam Hospital	93.855	7147205SR	Allergy and Infectious Diseases Research	-	134,847
Oregon Health and Science University	93.855	1017567_UMMS	Allergy and Infectious Diseases Research	-	67,580
Planet Biotechnology, Inc.	93.855	4R44AI147930-02 SUB UMASS	Allergy and Infectious Diseases Research	-	166,841
Rutgers University	93.855	1R01AI143760-01A1	Allergy and Infectious Diseases Research	-	44,667
Rutgers University	93.855	2078	Allergy and Infectious Diseases Research	-	23,632
Rutgers University	93.855	2111	Allergy and Infectious Diseases Research	-	164,942
Sigmovir Biosystems, Inc.	93.855	5 R44 AI109926-05	Allergy and Infectious Diseases Research	-	206,808
Texas A&M University	93.855	M1803703	Allergy and Infectious Diseases Research	-	320,362
The Scripps Research Institute	93.855	5-2732	Allergy and Infectious Diseases Research	-	293,447
University of California Santa Cruz	93.855	A20-0263-S001	Allergy and Infectious Diseases Research	-	123,868
University of California San Francisco	93.855	10249sc	Allergy and Infectious Diseases Research	-	44,383
University of California San Francisco	93.855	12552sc	Allergy and Infectious Diseases Research	-	72,439
University of Georgia	93.855	SUB00002456	Allergy and Infectious Diseases Research	-	147,568
University of Missouri	93.855	C00070624-1	Allergy and Infectious Diseases Research	-	1,242

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University of Pittsburgh	93.855	CNVA00056812 (136461-12)	Allergy and Infectious Diseases Research	-	127,456
University of Rochester	93.855	SUB00000003/URFAO:GR530075	Allergy and Infectious Diseases Research	-	48,827
University of Rochester	93.855	SUB00000153/URFAO: GR531577	Allergy and Infectious Diseases Research	-	63,549
University of Texas at San Antonio	93.855	100002233	Allergy and Infectious Diseases Research	-	73,732
University of Texas at San Antonio	93.855	100004632	Allergy and Infectious Diseases Research	-	6,755
Veterans Medical Research Foundation	93.855	09473001-318542	Allergy and Infectious Diseases Research	-	32,249
Washington University	93.855	WU-21-340	Allergy and Infectious Diseases Research	-	334,820
Washington University	93.855	WU-21-404	Allergy and Infectious Diseases Research	-	207,424
Weill Cornell Medical College	93.855	200543-6	Allergy and Infectious Diseases Research	-	307,776
Weill Cornell Medical College	93.855	200682	Allergy and Infectious Diseases Research	-	333,767
Weill Cornell Medical College	93.855	211027-2	Allergy and Infectious Diseases Research	-	128,072
Weill Cornell Medical College	93.855	211594	Allergy and Infectious Diseases Research	-	293,065
Weill Cornell Medical College	93.855	220225-6	Allergy and Infectious Diseases Research	-	298,151
Weill Cornell Medical College	93.855	R01A46180	Allergy and Infectious Diseases Research	-	326,709
Weill Cornell Medical College	93.855	3 R01AI137198-04S1	Allergy and Infectious Diseases Research	-	71,926
Weill Cornell Medical College	93.855	CON-80003080 (GR113389)	Allergy and Infectious Diseases Research	-	180,140
Yale University	93.855	CON-80003080 (GR113389)	Allergy and Infectious Diseases Research	-	180,140
Allergy and Infectious Diseases Research Total				<u>5,231,358</u>	<u>43,261,492</u>
National Institutes of Health	93.859	Direct	Biomedical Research and Research Training	906,050	32,529,427
Brigham and Women's Hospital	93.859	120184	Biomedical Research and Research Training	-	70,763
Cornell University	93.859	78565-10975	Biomedical Research and Research Training	-	(435)
Emory University	93.859	R01GM123136	Biomedical Research and Research Training	-	124,491
Emory University	93.859	R01GM113887	Biomedical Research and Research Training	-	1,659
Ohio State University	93.859	UMMS-UESGM139190	Biomedical Research and Research Training	-	22,577
The American Society for Cell Biology	93.859	1K12GM133314-01	Biomedical Research and Research Training	-	56,884
Tufts University	93.859	A18-0909-S001	Biomedical Research and Research Training	-	46,377
University of California Davis	93.859	AWD102126	Biomedical Research and Research Training	-	306,741
University of Chicago	93.859	F218389-1	Biomedical Research and Research Training	-	1,276
University of Maryland	93.859	8U54AI150470	Biomedical Research and Research Training	-	96,832
University of Michigan	93.859	5211	Biomedical Research and Research Training	-	12,712
University of Puerto Rico	93.859	878K651	Biomedical Research and Research Training	-	56,501
University of Wisconsin	93.859	10622-GR	Biomedical Research and Research Training	-	14,980
Worcester Polytechnic Institute	93.859	11046-GR	Biomedical Research and Research Training	-	81,374
Worcester Polytechnic Institute	93.859	11046-GR	Biomedical Research and Research Training	-	81,374
Biomedical Research and Research Training Total				<u>906,050</u>	<u>33,421,659</u>
Olive View Ucla Education Research Inst	93.860	20-17 R1	COVID-19 Emerging Infections Sentinel Networks	-	108,754
National Institutes of Health	93.865	Direct	Child Health and Human Development Extramural Research	1,515,093	10,502,982
Boston Medical Center	93.865	02_UMMS_03288	Child Health and Human Development Extramural Research	-	150,391
Brandeis University	93.865	403519	Child Health and Human Development Extramural Research	-	7,856
Brandeis University	93.865	GR404243_UMMS	Child Health and Human Development Extramural Research	-	1,466
Florida State University	93.865	R01D093055	Child Health and Human Development Extramural Research	-	223,005
Harvard Pilgrim Health Care, Inc.	93.865	AH000630	Child Health and Human Development Extramural Research	-	10,659
Marist College	93.865	FD064-NIH	Child Health and Human Development Extramural Research	-	5,714
Massachusetts General Hospital	93.865	1R01HD091211-01A1	Child Health and Human Development Extramural Research	-	191
Massachusetts General Hospital	93.865	231218	Child Health and Human Development Extramural Research	-	48,096
New York University	93.865	F1578-01	Child Health and Human Development Extramural Research	-	62,916
Northwestern University	93.865	82324	Child Health and Human Development Extramural Research	-	17,587
Northwestern University	93.865	82328_UMass_Y2	Child Health and Human Development Extramural Research	-	6,563
University of Alabama	93.865	000526572-SC002	Child Health and Human Development Extramural Research	-	8,791
University of California San Francisco	93.865	12475c	Child Health and Human Development Extramural Research	-	25,420
University of Minnesota	93.865	1U54HD093540-01	Child Health and Human Development Extramural Research	-	240
University of North Carolina	93.865	5108779	Child Health and Human Development Extramural Research	-	42,782
University of Southern California	93.865	SC0N-00003172	Child Health and Human Development Extramural Research	-	8,228
University of Wisconsin - Milwaukee	93.865	203405448	Child Health and Human Development Extramural Research	-	10,676
University of Wisconsin - Milwaukee	93.865	223405549	Child Health and Human Development Extramural Research	-	4,657
Weill Cornell Medical College	93.865	1R01HD088571-01A1	Child Health and Human Development Extramural Research	-	115,718
Child Health and Human Development Extramural Research Total				<u>1,515,093</u>	<u>11,254,138</u>
National Institutes of Health	93.866	Direct	Aging Research	1,756,154	15,739,898
National Institutes of Health	93.866	Direct/5 R33 AG057806-05	COVID-19 Aging Research	502,810	1,085,627
Albert Einstein College of Medicine	93.866	311108	Aging Research	-	4,599
Arizona State University	93.866	ASUB00000634	Aging Research	-	1,011,679
Beth Israel Deaconess Medical Center	93.866	01062856	Aging Research	-	190,253

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Brigham and Women's Hospital	93.866	120969	Aging Research	-	19,119
Brigham and Women's Hospital	93.866	123965	Aging Research	-	82,284
Brown University	93.866	US4AG063546	Aging Research	-	57,137
Clemson University	93.866	1R03AG065637-01	Aging Research	-	20,495
Columbia University Medical Center	93.866	1(GG17425-01)	Aging Research	-	143,359
Hebrew Senior Life	93.866	90083	Aging Research	-	18,139
Kaiser Foundation Research Institute	93.866	OH-14-1994-H_10	Aging Research	-	20,938
Leadingage	93.866	R21AG069019	Aging Research	-	31,412
Massachusetts General Hospital	93.866	226821	Aging Research	-	74,600
Massachusetts General Hospital	93.866	239567	Aging Research	-	210,433
North CA Institute for Research and Ed	93.866	R24AG064025	Aging Research	-	41,442
Purdue University	93.866	1R56AG062767-01	Aging Research	-	5,234
State University of N.Y. at Buffalo Suny	93.866	R1272675	Aging Research	-	2,469
State University of N.Y. at Buffalo Suny	93.866	R1293036	Aging Research	-	11,876
The American Geriatrics Society	93.866	1R25AG071488-01-MA	Aging Research	-	59,382
University of Alabama	93.866	A19-0473-S001	Aging Research	-	91,570
University of California Santa Barbara	93.866	KK2267	Aging Research	-	18,898
University of Connecticut Health Center	93.866	UCHC7-137277511	Aging Research	-	24,356
University of Pennsylvania	93.866	5R56AG06913002	Aging Research	-	109,479
University of Pittsburgh	93.866	AWD00003000 (135310-8)	Aging Research	-	258,817
University of Washington	93.866	UWSC10987	Aging Research	-	130,887
Aging Research Total				<u>2,258,964</u>	<u>19,464,382</u>
National Institutes of Health	93.867	Direct	Vision Research	252,679	2,579,077
Brigham and Women's Hospital	93.867	119243	Vision Research	-	(1,609)
Montana State University	93.867	G341-20-W8265	Vision Research	-	20,210
Schepens Eye Research Institute	93.867	533483	Vision Research	-	58,427
University of Maryland	93.867	98910-Z0407201	Vision Research	-	79,469
Vision Research Total				<u>252,679</u>	<u>2,735,574</u>
National Institutes of Health	93.879	Direct	Medical Library Assistance	600,228	2,902,972
Medical Library Assistance Total				<u>600,228</u>	<u>2,902,972</u>
Harvard University	93.884	158269.5098234.0505	Primary Care Training and Enhancement	-	6,283
Mayo Clinic Rochester	93.884	UMA-268163/PO #68340439	Primary Care Training and Enhancement	-	19,579
Primary Care Training and Enhancement Total				<u>-</u>	<u>25,862</u>
Health Resources Service Administration	93.918	Direct	Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	-	448,774
Health Resources Service Administration	93.918	Direct/1 H7 CHA36799-01-00	COVID-19 Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	-	(14,525)
MA Department of Public Health	93.918	INTF4944MM3181926039	Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	-	901,662
MA Department of Public Health	93.918	INTF4944MM3181926039	Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	-	(8,536)
Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease Total				<u>-</u>	<u>1,327,375</u>
Health Resources Service Administration	93.928	Direct	Special Projects of National Significance	624,694	994,753
Boston University	93.928	4500003358	Special Projects of National Significance	-	53,363
Boston University	93.928	4500003404	Special Projects of National Significance	-	18,349
Special Projects of National Significance Total				<u>624,694</u>	<u>1,066,465</u>
New York University	93.936	18-A0-00-1001556	National Institutes of Health Acquired Immunodeficiency Syndrome Research Loan Repayment Program	-	143,487
National Institutes of Health	93.989	Direct	International Research and Research Training	226,923	443,386
Hanoi Medical University	93.989	1D43TW011394-01	International Research and Research Training	-	59,745
National Center for Tuberculosis and Lung Disease	93.989	03/02/2020	International Research and Research Training	-	(411)
International Research and Research Training Total				<u>226,923</u>	<u>502,720</u>
MA Department of Public Health	93.991	INTF3401M03181228065	Preventive Health and Health Services Block Grant	-	78,159
MA Department of Public Health	93.994	INTF3054M03182122021	Maternal and Child Health Services Block Grant to the States	-	2,044
Centers for Disease Control & Prevention	93.U01	75D30121P10027	COVID-19 Department of Health and Human Services Contracts	-	297,337
Centers for Disease Control & Prevention	93.U02	19IPA1905156	Department of Health and Human Services Contracts	-	23,009

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Children's Research Institute	93.U03	Site Agmt#: 30004438	Miscellaneous Department of Health and Human Services	-	(82,744)
Duke University	93.U04	226749	Department of Health and Human Services Contracts	-	41,435
Duke University	93.U05	SA-D401-02	COVID-19 Department of Health and Human Services Contracts	-	190,533
Harvard Medical School	93.U06	149880.5109492.0208	Miscellaneous Department of Health and Human Services	-	157,493
Harvard Pilgrim Health Care, Inc.	93.U07	200-2011-42037	Department of Health and Human Services Contracts	-	19,926
Harvard Pilgrim Health Care, Inc.	93.U08	HHSF22320140030I	Department of Health and Human Services Contracts	-	(1,724)
Harvard Pilgrim Health Care, Inc.	93.U09	W01026	Department of Health and Human Services Contracts	-	43,217
Harvard School of Public Health	93.U10	109786.5110785	COVID-19 Department of Health and Human Services Contracts	-	608,121
Harvard School of Public Health	93.U11	109786.5110783	Department of Health and Human Services Contracts	-	421,303
Health Research, Inc.	93.U12	6177-02	Department of Health and Human Services Contracts	-	220,391
Imiad LLC	93.U13	HHSN271201800039C	Department of Health and Human Services Contracts	-	(1,162)
Johns Hopkins University	93.U14	PO 2001837780	Miscellaneous Department of Health and Human Services	-	(1,793)
Langston University	93.U15	LU 5-17044-1	Department of Health and Human Services Contracts	-	(1)
Leidos Biomedical Research, Inc.	93.U16	20CTA-DC005	Department of Health and Human Services Contracts	-	38,090
Leidos Biomedical Research, Inc.	93.U17	20CTA-DM00027	COVID-19 Department of Health and Human Services Contracts	-	168,413
Leidos, Inc.	93.U18	21X131F	Department of Health and Human Services Contracts	3,000	14,049
Mathematica Policy Research	93.U19	HHSF23337038T	Department of Health and Human Services Contracts	-	41,718
Nicolaide R&D LLC.	93.U20	75N91019C00054	Department of Health and Human Services Contracts	-	(14,940)
National Institutes of Health	93.U21	HHSN311201700307P	Department of Health and Human Services Contracts	-	3,262
National Institutes of Health	93.U22	1 R01 HD083311-01A1	Department of Health and Human Services Contracts	-	2,013
National Institutes of Health	93.U23	75N92019P00408	Department of Health and Human Services Contracts	-	(904)
National Institutes of Health	93.U24	75N93019C00064	Department of Health and Human Services Contracts	433,685	1,101,769
National Institutes of Health	93.U25	75N93020C00049	Department of Health and Human Services Contracts	822,945	1,194,155
PPD Investigator Services, LLC.	93.U26	ACTIV-2/A5401 IND#151193	COVID-19 Department of Health and Human Services Contracts	-	7,117
Research Triangle Institute	93.U27	40-312-0214780-66515L	Department of Health and Human Services Contracts	-	36,432
Seattle Children's Hospital	93.U28	12755SUB	Department of Health and Human Services Contracts	-	10,410
Swedish Medical Center	93.U29	SMC- 223004 B.01	Department of Health and Human Services Contracts	-	54,266
The Broad Institute	93.U30	5000854-5500001511	Department of Health and Human Services Contracts	-	198,107
University of Alabama	93.U31	HHSN26800001	COVID-19 Department of Health and Human Services Contracts	-	49,125
University of New Mexico	93.U32	3RJK7	Department of Health and Human Services Contracts	-	191,819
University of North Carolina	93.U33	5118984	COVID-19 Department of Health and Human Services Contracts	-	2,290
University of North Carolina	93.U34	5115233	Department of Health and Human Services Contracts	-	7,438
University of Wisconsin Madison	93.U35	75N93021C00004	Department of Health and Human Services Contracts	-	255,482
MA Department of Public Health	93.U36	MEDISERVICESORGM2M00014	Department of Health and Human Services Contracts	-	22,953
MA Department of Public Health	93.U37	MEDISERVICESORGM2M00014	COVID-19 Department of Health and Human Services Contracts	-	83,216
Department of Health and Human Services Total				50,471,347	319,082,557
Department of Homeland Security					
MA Emergency Management Agency	97.039	ISACDAH437905UM821A	Hazard Mitigation Grant	-	16,267
U.S. Department of Homeland Security	97.044	Direct	Assistance to Firefighters Grant	3,898	146,276
U.S. Department of Homeland Security	97.108	Direct	Homeland Security, Research, Testing, Evaluation, and Demonstration of Technologies	-	19,220
Department of Homeland Security Total				3,898	181,763
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	-	28,089
Town of Chester	14.228	016366-00002	Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii	-	86,465
Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii Total				-	114,554
U.S. Dept of Housing & Urban Development	14.906	Direct	Healthy Homes Technical Studies Grants	40,405	215,377
Department of Housing and Urban Development Total				40,405	329,931
Department of Justice					
North American Indian Center of Boston, Inc	16.016	2015-UW-AX-0009	Culturally and Linguistically Specific Services Program	-	(4,327)
U.S. Department of Justice	16.543	Direct	Missing Children's Assistance	-	171,200
Fox Valley Technical College	16.543	2019MCFXK064	Missing Children's Assistance	-	26,636
Missing Children's Assistance Total				-	197,836
National Institute of Justice	16.560	Direct	National Institute of Justice Research, Evaluation, and Development Project Grants	120,057	295,552
Cuny City College	16.560	2017-VT-BX-0002	National Institute of Justice Research, Evaluation, and Development Project Grants	-	3,252
Development Services Group, Inc	16.560	DSG - UML 2020-01	National Institute of Justice Research, Evaluation, and Development Project Grants	-	80,855

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Texas A&M University	16.560	TAMU-2021-420376-01	National Institute of Justice Research, Evaluation, and Development Project Grants	-	23,078
National Institute of Justice Research, Evaluation, and Development Project Grants Total				<u>120,057</u>	<u>402,737</u>
MA Office for Victim Assistance	16.575	015784-00002	Crime Victim Assistance	-	64,125
MA Office for Victim Assistance	16.575	ISAVWAVOCA0000EVWC21AA	Crime Victim Assistance	-	128,382
MA Office for Victim Assistance	16.575	VOCA 2018-V2-GX-0064	COVID-19 Crime Victim Assistance	-	22
MA Office for Victim Assistance	16.575	VOCA2020EVWCEMRGNCY 15718	Crime Victim Assistance	-	171
Crime Victim Assistance Total				<u>-</u>	<u>192,700</u>
Mass General Brigham Incorporated	16.582	120708	Crime Victim Assistance/Discretionary Grants	-	(3,247)
Town of Amherst	16.590	015940-00002	Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program	-	69,819
Town of Belchertown	16.590	015942-00002	Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program	-	53,195
Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program Total				<u>-</u>	<u>123,014</u>
U.S. Department of Justice	16.602	Direct	Corrections-Research and Evaluation and Policy formulation	58,757	115,669
Fox Valley Technical College	16.608	D2020010054	Tribal Justice Systems and Alcohol and Substance Abuse	-	19,570
City of Chelsea	16.610	2018-181	Regional Information Sharing Systems	-	43,060
U.S. Department of Justice	16.710	Direct	Public Safety Partnership and Community Policing Grants	-	4,537
U.S. Department of Justice	16.726	Direct	Juvenile Mentoring Program	-	10,573
National 4-H Council	16.726	2019-MU-FX-0002	Juvenile Mentoring Program	-	8,779
National 4-H Council	16.726	2020-JU-FX-0031	Juvenile Mentoring Program	-	53,723
Juvenile Mentoring Program Total				<u>-</u>	<u>73,075</u>
City of Lowell	16.738	PO # 18000093-00	Edward Byrne Memorial Justice Assistance Grant Program	-	31,449
City of Lowell	16.745	PO# 21100627	Criminal and Juvenile Justice and Mental Health Collaboration Program	-	34,144
City of Lowell	16.754	PO # 18000212-00	Harold Rogers Prescription Drug Monitoring Program	-	29,567
Executive Office of The Trial Court	16.812	BJA-2016-9197	Second Chance Act Reentry Initiative	-	50,751
City of Lowell	16.838	PO# 21100628	Comprehensive Opioid, Stimulant, and Substance Abuse Program	-	52,479
Federal Bureau of Investigation	16.U01	15F06721F0001320	Department of Justice Contracts	-	374,821
Federal Bureau of Investigation	16.U02	15F06721P0003689	Department of Justice Contracts	-	147,828
Federal Bureau of Investigation	16.U03	15F06721P0003624	Department of Justice Contracts	122,566	657,194
Federal Bureau of Investigation	16.U04	15F06720P0001744	Department of Justice Contracts	22,886	190,089
Department of Justice Total				<u>324,266</u>	<u>2,732,946</u>
Department of Labor					
MA Executive Office of Elder Affairs	17.235	ISAELD91101073UMB21A	Senior Community Service Employment Program	-	24,798
Council of State Governments	17.U01	21-A1-053-280	COVID-19 Department of Health and Human Services Contracts	-	22,748
Council of State Governments	17.U02	20-SA-053-2801	Department of Labor Contracts	-	42,899
Department of Labor Total				<u>-</u>	<u>90,445</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	-	27,275
Global Fund To End Modern Slavery	19.019	Service Agreement dated 9/4/19	International Programs to Combat Human Trafficking	149,738	229,255
New York University	19.019	S1471-02	International Programs to Combat Human Trafficking	-	3,079
New York University	19.019	S1472-02	International Programs to Combat Human Trafficking	-	6,895
New York University	19.019	S1646-01/ A22-0337-S001	International Programs to Combat Human Trafficking	-	4,148
University of Georgia Research Foundation, Inc.	19.019	Award 33006	International Programs to Combat Human Trafficking	-	127,266
International Programs to Combat Human Trafficking Total				<u>149,738</u>	<u>397,918</u>
Department of State Total				<u>149,738</u>	<u>398,800</u>
Department of the Interior					
MA Department of Fish & Game	15.634	F20AP00243	State Wildlife Grants	-	65,081
U.S. Fish and Wildlife Service	15.670	Direct	Adaptive Science	-	62,852
Wildlife Management Institute	15.670	F20AC00356	Adaptive Science	-	142,027
Adaptive Science Total				<u>-</u>	<u>204,879</u>
U.S. Fish and Wildlife Service	15.678	Direct	Cooperative Ecosystem Studies Units	-	4,250
U.S. Geological Survey	15.805	Direct	Assistance to State Water Resources Research Institutes	78,664	119,643
U.S. Geological Survey	15.807	Direct	Earthquake Hazards Program Assistance	-	103,628
Southern California Earthquake Center	15.807	SCON-00002303	Earthquake Hazards Program Assistance	-	29,851
Earthquake Hazards Program Assistance Total				<u>-</u>	<u>133,479</u>

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Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
U.S. Geological Survey	15.808	Direct	U.S. Geological Survey- Research and Data Collection	296,944	884,108
U.S. Geological Survey	15.812	Direct	Cooperative Research Units	-	520,945
U.S. Geological Survey	15.820	Direct	National and Regional Climate Adaptation Science Centers	370,258	1,294,686
National Park Service	15.945	Direct	Cooperative Research and Training Programs Resources of the National Park System	-	128,569
Richard Grubb and Associates, Inc.	15.946	140P1319FO201	Cultural Resources Management	-	(1,136)
U.S. Department of Interior	15.954	Direct	National Park Service Conservation, Protection, Outreach, and Education	-	(4)
National Writing Project	15.954	P18AC1307	National Park Service Conservation, Protection, Outreach, and Education	-	2
National Park Service Conservation, Protection, Outreach, and Education Total				-	(2)
MA Division of Fisheries and Wildlife	15.U01	ISAFWE6008FILMUMA16A	Department of the Interior Contracts	-	8,113
Triton Systems, Inc.	15.U02	TSI-2646-20-2021046	Department of the Interior Contracts	-	(1,483)
U.S. Geological Survey	15.U03	140G0118C0010 / PO# 0040362221	Department of the Interior Contracts	-	189,642
Department of the Interior Total				745,866	3,550,774
Department of Transportation					
Federal Aviation Administration	20.108	Direct	Aviation Research Grants	-	49,460
Federal Highway Administration	20.215	Direct	Highway Training and Education	-	10,819
MA Department of Transportation	20.505	INTF00X02020A0109600	Metropolitan Transportation Planning and State and Non-Metropolitan Planning and Research	-	3,142,339
Pioneer Valley Transit Authority	20.530	HOPE PROGRAM	Public Transportation Innovation	-	30,119
Pioneer Valley Transit Authority	20.530	MA20210120100	Public Transportation Innovation	-	73,665
Public Transportation Innovation Total				-	103,784
National Safety Council	20.614	26524	National Highway Traffic Safety Administration (NHTSA) Discretionary Safety Grants and Cooperative Agreements	-	45,941
University of Iowa Health Care	20.701	69A3551747131	University Transportation Centers Program	-	140,315
University of Maine	20.701	UMS-1183	University Transportation Centers Program	-	310,477
University Transportation Centers Program Total				-	450,792
Dunlap and Associates, Inc.	20.U01	DTNH2211D00225L	Department of Transportation Contracts	-	20,530
Dunlap and Associates, Inc.	20.U02	DTNH2211D00225L/0006	Department of Transportation Contracts	-	11,652
Dunlap and Associates, Inc.	20.U03	DTNH2217D000031	Department of Transportation Contracts	-	21,209
Federal Railroad Administration	20.U04	RR ADMIN 693JU619C000021	Department of Transportation Contracts	15,476	90,161
Maine Department of Transportation	20.U05	015947-00002	Department of Transportation Contracts	-	47,896
Department of Transportation Total				15,476	3,994,583
Department of Veterans Affairs					
Department of Veterans Affairs	64.054	Direct	Research and Development	-	221,710
Minneapolis VA Health Care System	64.054	Direct	Research and Development	-	(463)
Research and Development Total				-	221,247
Department of Veterans Affairs	64.U01	PO 671D12005 : 36C24E19C0020 Amendment P00002	Department of Veterans Affairs Contracts	-	72,885
Department of Veterans Affairs Total				-	294,132
Environmental Protection Agency					
U.S. Environmental Protection Agency	66.110	Direct	Healthy Communities Grant Program	-	28,193
U.S. Environmental Protection Agency	66.129	Direct	Southeast New England Coastal Watershed Restoration	48,882	132,210
University of Connecticut	66.437	432205	Long Island Sound Program	-	19,986
MA Dept of Environmental Protection	66.456	EPA#CE-00A00623	National Estuary Program	-	7,230
MA Office of Coastal Zone Mngmnt	66.456	EPA#CE-00A00860	National Estuary Program	-	6,040
National Estuary Program Total				-	13,270
U.S. Environmental Protection Agency	66.461	Direct	Regional Wetland Program Development Grants	-	105,631
MA Dept of Environmental Protection	66.461	ISAEQE22309702UMS20C	Regional Wetland Program Development Grants	-	68,386
Regional Wetland Program Development Grants Total				-	174,017
U.S. Environmental Protection Agency	66.509	Direct	Science To Achieve Results (STAR) Research Program	-	251,083
Dartmouth College	66.509	R953	Science To Achieve Results (STAR) Research Program	-	22,133
Science To Achieve Results (STAR) Research Program Total				-	273,216

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Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
U.S. Environmental Protection Agency	66.511	Direct	Office of Research and Development Consolidated Research/Training/Fellowships	24,643	159,792
Health Effects Institute	66.511	CR63998101	Office of Research and Development Consolidated Research/Training/Fellowships	-	19,773
Office of Research and Development Consolidated Research/Training/Fellowships Total				<u>24,643</u>	<u>179,565</u>
Assoc State Drinking Water Administrator	66.521	84024301	Innovative Water Technology Grant Program	-	26,642
MA Dept of Environmental Protection	66.605	ISA/BRP-RFR-2019-07-319 15537	Performance Partnership Grants	-	(952)
MA Dept of Agricultural Resources	66.700	00A00863 016738-00002	Consolidated Pesticide Enforcement Cooperative Agreements	-	75,483
MA Dept of Agricultural Resources	66.700	119-0027	Consolidated Pesticide Enforcement Cooperative Agreements	-	9,957
MA Dept of Agricultural Resources	66.700	15455-00002	Consolidated Pesticide Enforcement Cooperative Agreements	-	(1,949)
MA Dept of Agricultural Resources	66.700	ISAAGR25110310UMS21A	Consolidated Pesticide Enforcement Cooperative Agreements	-	120,123
Consolidated Pesticide Enforcement Cooperative Agreements Total				<u>-</u>	<u>203,614</u>
U.S. Environmental Protection Agency	66.708	Direct	Pollution Prevention Grants Program	27,383	31,733
Extension Foundation	66.716	8369801	Research, Development, Monitoring, Public Education, Outreach, Training, Demonstrations, and Studies	-	14,155
Battelle Energy Alliance, LLC.	66.U01	241747	Environmental Protection Agency Contracts	-	26,017
The Cadmus Group, Inc.	66.U02	WA1-91 / 022-UMassLowell-1	Environmental Protection Agency Contracts	-	(200)
Environmental Protection Agency Total				<u>100,908</u>	<u>1,121,466</u>
Institute of Museum and Library Services					
Institute of Museum & Library Services	45.312	Direct	National Leadership Grants	-	19,429
Institute of Museum and Library Services Total				<u>-</u>	<u>19,429</u>
Millennium Challenge Corporation					
Millenium Challenge Corporation	85.002	Direct	MCC Foreign Assistance for Overseas Programs	106,503	256,273
Millennium Challenge Corporation Total				<u>106,503</u>	<u>256,273</u>
National Aeronautics and Space Administration					
Jet Propulsion Laboratory	43.001	Direct	Science	-	74,676
NASA Goddard Space Flight Center	43.001	Direct	Science	11,301	1,117,322
National Aero and Space Administration	43.001	Direct	Science	520,027	2,605,618
Brown University	43.001	00001490	Science	-	137,936
California Institute of Technology	43.001	1664193	Science	-	13,050
California Institute of Technology	43.001	1667510	Science	-	12,650
California Institute of Technology	43.001	80NNM0018D0004	Science	-	167,260
California Institute of Technology	43.001	80NNM0018D0004	Science	-	82
Hampton University	43.001	HU-180001	Science	-	24,501
Michigan Technological University	43.001	80NSSC19M0107	Science	-	3,090
Ohio State University	43.001	PORF01614931 Award 60078490	Science	-	57,546
Purdue University	43.001	12000289-06	Science	-	31,162
SETI Institute	43.001	80NSSC19K1230	Science	-	5,027
SETI Institute	43.001	80NSSC21K1103	Science	-	8,479
SETI Institute	43.001	80NSSC21K1480	Science	-	11,317
Smithsonian Astrophysical Observatory	43.001	NAS8-03060	Science	-	8,856
Southwest Research Institute	43.001	M99017N	Science	-	6,386
Space Telescope Science Institute	43.001	HST-GO-15116.005-A	Science	-	4,782
Space Telescope Science Institute	43.001	HST-GO-15330.001-A	Science	-	6,508
Space Telescope Science Institute	43.001	HST-HF2-51484.001-A	Science	-	96,740
Space Telescope Science Institute	43.001	NASS-26555	Science	-	4,453
Space Telescope Science Institute	43.001	NASS-26555	Science	-	369,445
Space Telescope Science Institute	43.001	NASS-26555/NASS-03127	Science	-	17,698
SRI International	43.001	PO36825	Science	-	108,574
Universities Space Research Association	43.001	NNA17BF53C	Science	-	57,326
University of California Irvine	43.001	80NSSC17K0698	Science	-	49,508
University of California Los Angeles	43.001	80NSSC20K1340	Science	-	70,017
University of Maryland	43.001	80NSSC21K0967	Science	-	25,863
University of North Carolina	43.001	80NSSC18M0099	Science	-	39,673
University of Toledo	43.001	80NSSC19K0591	Science	-	35,816
Woods Hole Oceanographic Institution	43.001	23114202	Science	-	37,053
Science Total				<u>531,328</u>	<u>5,208,414</u>

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Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
NASA Langley Research Center	43.002	Direct	Aeronautics	-	92,071
National Aero and Space Administration	43.002	Direct	Aeronautics	46,381	216,785
Aeronautics Total				<u>46,381</u>	<u>308,856</u>
National Aero and Space Administration	43.007	Direct	Space Operations	-	329,299
National Aero and Space Administration	43.008	Direct	Office of Stem Engagement (OSTEM)	91,778	221,657
Delaware State University	43.008	17-014HEH	Office of Stem Engagement (OSTEM)	-	30,298
Office of Stem Engagement (OSTEM) Total				<u>91,778</u>	<u>251,955</u>
National Aero and Space Administration	43.009	Direct	Safety, Security and Mission Services	-	30
NASA Stennis Space Center	43.012	Direct	Space Technology	-	19,494
National Aero and Space Administration	43.012	Direct	Space Technology	9,632	190,306
Space Technology Total				<u>9,632</u>	<u>209,800</u>
California Institute of Technology	43.U01	1486198	National Aeronautics and Space Administration Contracts	-	24,027
Katabasis Engineering LLC.	43.U02	Agreement dated 12/11/2019	National Aeronautics and Space Administration Contracts	-	84,706
Space Telescope Science Institute	43.U03	HST-GO-15693.002-A	National Aeronautics and Space Administration Contracts	-	4,611
Universities Space Research Association	43.U04	NNA17BF53C	National Aeronautics and Space Administration Contracts	-	72,385
University of New Hampshire	43.U05	L0138	National Aeronautics and Space Administration Contracts	-	1,391
National Aeronautics and Space Administration Total				<u>679,119</u>	<u>6,495,474</u>
National Endowment for the Arts					
National Endowment for The Arts	45.024	Direct	Promotion of the Arts-Grants to Organizations and Individuals	-	17,264
National Endowment for the Arts Total				<u>-</u>	<u>17,264</u>
National Endowment for the Humanities					
National Endowment for The Humanities	45.149	Direct	Promotion of the Humanities-Division of Preservation and Access	20,624	44,070
City of Boston	45.149	PW-264199-19	Promotion of the Humanities-Division of Preservation and Access	-	2,000
Promotion of the Humanities-Division of Preservation and Access Total				<u>20,624</u>	<u>46,070</u>
National Endowment for The Humanities	45.160	Direct	Promotion of the Humanities-Fellowships and Stipends	-	118,638
National Endowment for The Humanities	45.161	Direct	Promotion of the Humanities-Research	-	43,335
National Endowment for The Humanities	45.163	Direct	Promotion of the Humanities-Professional Development	-	271,858
National Endowment for the Humanities Total				<u>20,624</u>	<u>479,901</u>
National Science Foundation					
National Science Foundation	47.041	Direct	Engineering Grants	213,568	7,566,058
National Science Foundation	47.041	Direct/2029371	COVID-19 Engineering Grants	-	27,808
National Science Foundation	47.041	Direct/Grant ID: 2031153	COVID-19 Engineering Grants	-	(879)
Advisory Aerospace Osc LLC.	47.041	2036546	Engineering Grants	-	40,187
American Soc. for Engineering Education	47.041	2127509	Engineering Grants	-	96,052
Ernest Pharmaceuticals LLC.	47.041	015988-00002	Engineering Grants	-	109,212
Georgia Institute of Technology	47.041	RJ378-GI	Engineering Grants	-	25,104
Harvard University	47.041	168002-5111737	Engineering Grants	-	168,667
Johns Hopkins University	47.041	2004594343	Engineering Grants	-	28,710
Johns Hopkins University	47.041	2004987934	Engineering Grants	-	41,557
Johns Hopkins University	47.041	2004987947	Engineering Grants	-	82,201
Johns Hopkins University	47.041	2005450358	Engineering Grants	-	4,913
Johns Hopkins University	47.041	2005450426	Engineering Grants	-	3,635
Johns Hopkins University	47.041	2005450435	Engineering Grants	-	22,254
Leonine Technologies, Inc.	47.041	18-550	Engineering Grants	-	3
Massachusetts Institute of Technology	47.041	S5486 PO#646363	Engineering Grants	-	76,074
Northeastern University	47.041	1907250	Engineering Grants	-	39,428
Northeastern University	47.041	502981-78050	Engineering Grants	-	24,974
Optical Waters LLC.	47.041	2136341	Engineering Grants	-	5,294
Research Foundation - Cuny	47.041	CM00007255-00	Engineering Grants	-	7,969
Simplyvital Health	47.041	2026461	Engineering Grants	-	63,118
Tufts University	47.041	118-1746p1	Engineering Grants	-	9,586
University of Arizona	47.041	1941583	Engineering Grants	-	155,513
University of Missouri	47.041	C00065788-1	Engineering Grants	-	38,361
University of New Hampshire	47.041	13-027	Engineering Grants	-	2

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Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
University of Rhode Island Engineering Grants Total	47.041	0008544/11092020	Engineering Grants	-	19,167
				<u>213,568</u>	<u>8,654,968</u>
National Science Foundation	47.049	Direct	Mathematical and Physical Sciences	605,015	9,671,464
National Science Foundation	47.049	Direct/2028589	COVID-19 Mathematical and Physical Sciences	-	23,846
National Science Foundation	47.049	Direct/2029416	COVID-19 Mathematical and Physical Sciences	-	44,379
Brandeis University	47.049	2011846	Mathematical and Physical Sciences	-	145,806
Columbia University	47.049	1948993	Mathematical and Physical Sciences	-	187,525
East Carolina University	47.049	AWD-21-0858-S002	Mathematical and Physical Sciences	-	9,102
Kansas State University	47.049	S16117	Mathematical and Physical Sciences	-	(2,551)
Massachusetts Institute of Technology	47.049	2034306	Mathematical and Physical Sciences	-	183,490
National Radio Astronomy Observatory	47.049	1519126	Mathematical and Physical Sciences	-	52,288
Smithsonian Astrophysical Observatory	47.049	AST 1935980	Mathematical and Physical Sciences	-	364,895
Smithsonian Astrophysical Observatory	47.049	SAO SV5-85007 AMEND 2	Mathematical and Physical Sciences	-	108,182
Suffolk University	47.049	1807480	Mathematical and Physical Sciences	-	41,920
Texas A&M University	47.049	2037904	Mathematical and Physical Sciences	-	782
University of California Davis	47.049	A19-1887-S002	Mathematical and Physical Sciences	-	18,077
University of Pennsylvania	47.049	2134715	Mathematical and Physical Sciences	-	9,439
University of Pittsburgh	47.049	005794 1 (012021-3)	Mathematical and Physical Sciences	-	9,107
University of Texas at Austin	47.049	1812747	Mathematical and Physical Sciences	-	25,083
Mathematical and Physical Sciences Total				<u>605,015</u>	<u>10,892,834</u>
National Science Foundation	47.050	Direct	Geosciences	61,730	3,211,185
Columbia University	47.050	1450528	Geosciences	-	759
Cornell University	47.050	1660923	Geosciences	-	10,624
Marine Biological Laboratory	47.050	OCE-1637630 / 52682	Geosciences	-	57,277
University of Maryland	47.050	SA07523110 PO85907	Geosciences	-	2,818
University of Texas at Austin	47.050	17-000314	Geosciences	-	7,171
Woods Hole Oceanographic Institution	47.050	AGS-1518503	Geosciences	-	1
Woods Hole Oceanographic Institution	47.050	OCE-1655686	Geosciences	-	67,001
Geosciences Total				<u>61,730</u>	<u>3,356,836</u>
National Science Foundation	47.070	Direct	Computer and Information Science and Engineering	589,021	12,105,397
National Science Foundation	47.070	Direct/ISO2032072/COVID-19	COVID-19 Computer and Information Science and Engineering	-	66,422
Arizona State University	47.070	1951928	Computer and Information Science and Engineering	-	3,922
Columbia University	47.070	1916585	Computer and Information Science and Engineering	-	25,000
Computing Research Association	47.070	2021CfF-UMass-58	Computer and Information Science and Engineering	-	56,701
Computing Research Association	47.070	2030859	Computer and Information Science and Engineering	-	242,617
Computing Research Association	47.070	2127309	Computer and Information Science and Engineering	-	19,692
Cornell University	47.070	72954-10599-01	Computer and Information Science and Engineering	-	36,760
Georgia Inst of Tech Research Inst	47.070	2112633	Computer and Information Science and Engineering	-	189,182
Millimeter Wave Systems, LLC.	47.070	NSF SBIR Phase 2	Computer and Information Science and Engineering	-	159,576
Ohio State University	47.070	2112471	Computer and Information Science and Engineering	-	60,818
University of Illinois at Chicago	47.070	18347	Computer and Information Science and Engineering	-	22,431
University of Michigan	47.070	1617998	Computer and Information Science and Engineering	-	27,959
University of Utah	47.070	10045119-UMAmherst	Computer and Information Science and Engineering	-	27,846
Woodwell Climate Research Center, Inc.	47.070	2125409	Computer and Information Science and Engineering	-	7,411
Worcester Polytechnic Institute	47.070	10051-GR	Computer and Information Science and Engineering	-	5,200
Computer and Information Science and Engineering Total				<u>589,021</u>	<u>13,056,934</u>
National Science Foundation	47.074	Direct	Biological Sciences	132,480	5,498,888
Arizona State University	47.074	ASUB00000219	Biological Sciences	-	2,704
Cold Spring Harbor Laboratory	47.074	2129189	Biological Sciences	-	46,816
Cold Spring Harbor Laboratory	47.074	525 70115-1	Biological Sciences	-	45,897
Dartmouth College	47.074	R1340	Biological Sciences	-	37,229
Harvard University	47.074	2101884	Biological Sciences	-	15,757
Michigan State University	47.074	1946007	Biological Sciences	-	15,381
New York Botanical Garden	47.074	1802034-01-UMASS	Biological Sciences	-	2,343
Syracuse University	47.074	2134215	Biological Sciences	-	61,997
Univ of CA -Riverside	47.074	S-001211	Biological Sciences	-	7,948
University of Denver	47.074	2030753	Biological Sciences	-	7,971
University of Georgia	47.074	RC3 71-289/S001134 -2	Biological Sciences	-	81,811
University of Pittsburgh	47.074	AWD00004485 (012686-3)	Biological Sciences	-	23,435

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University of Tennessee	47.074	1814520	Biological Sciences	-	96,798
Washington University	47.074	1947609	Biological Sciences	-	118,562
Biological Sciences Total				<u>132,480</u>	<u>6,063,537</u>
National Science Foundation	47.075	Direct	Social, Behavioral, and Economic Sciences	212,455	2,533,659
Harvard University	47.075	2051196	Social, Behavioral, and Economic Sciences	-	30,600
Syracuse University	47.075	1917908	Social, Behavioral, and Economic Sciences	-	59,832
University of California Irvine	47.075	2147011	Social, Behavioral, and Economic Sciences	-	21,984
University of Central Florida	47.075	16206076	Social, Behavioral, and Economic Sciences	-	65,359
University of Minnesota	47.075	PO# A005162201	Social, Behavioral, and Economic Sciences	-	8,729
Williams College	47.075	2020-NSF1947464-UMASS	Social, Behavioral, and Economic Sciences	-	22,539
Woods Hole Oceanographic Institution	47.075	A101459	Social, Behavioral, and Economic Sciences	-	17,812
Social, Behavioral, and Economic Sciences Total				<u>212,455</u>	<u>2,760,514</u>
National Science Foundation	47.076	Direct	Education and Human Resources	828,615	7,216,230
American Chemical Society	47.076	1806607	Education and Human Resources	-	12,957
City College of New York	47.076	1723209	Education and Human Resources	-	8,268
Council for Opportunity In Education	47.076	1759163	Education and Human Resources	-	2,949
Council for Opportunity In Education	47.076	1759163-4	Education and Human Resources	-	57,616
Education Development Center, Inc.	47.076	2050641	Education and Human Resources	-	46,095
Embry Riddle Aeronautical University Inc	47.076	1956193	Education and Human Resources	-	47,473
John Carroll University	47.076	2128203	Education and Human Resources	-	1,134
MA Department of Higher Education	47.076	ISARGT70661575UMS19A	Education and Human Resources	-	21,433
Northern Arizona University	47.076	1856384	Education and Human Resources	-	54,321
Springfield Technical Community College	47.076	1801090	Education and Human Resources	-	37,740
State University of N.Y. Cortland	47.076	1747527	Education and Human Resources	-	27,962
Tufts University	47.076	103512-00001	Education and Human Resources	-	10,988
Tufts University	47.076	DRL1657218	Education and Human Resources	-	33,929
University of California San Diego	47.076	DUE-1821521	Education and Human Resources	-	16,946
University of Central Florida	47.076	16406266	Education and Human Resources	-	22,177
University of Connecticut	47.076	116-0727	Education and Human Resources	-	59,200
University of Connecticut	47.076	148606934	Education and Human Resources	-	28,917
University of Connecticut	47.076	2110083	Education and Human Resources	-	24,058
University of Connecticut	47.076	PR: 1619629 / SB: 135339	Education and Human Resources	-	12,386
University of Florida	47.076	2128479	Education and Human Resources	-	14,188
University of Nebraska	47.076	1904102	Education and Human Resources	-	4,848
University of Southern California	47.076	109190808	Education and Human Resources	-	131,442
Worcester Polytechnic Institute	47.076	10593-GR	Education and Human Resources	-	28,342
Worcester Polytechnic Institute	47.076	10828-GR	Education and Human Resources	-	2,136
Education and Human Resources Total				<u>828,615</u>	<u>7,923,735</u>
National Science Foundation	47.078	Direct	Polar Programs	1,405	285,354
National Science Foundation	47.079	Direct	Office of International Science and Engineering	-	57,838
Johns Hopkins University	47.079	2005191988	Office of International Science and Engineering	-	42,219
Office of International Science and Engineering Total				<u>-</u>	<u>100,057</u>
National Science Foundation	47.083	Direct	Office of International Science and Engineering	-	880,297
Columbia University	47.083	2040613	Office of International Science and Engineering	-	125,248
Rutgers University	47.083	2069	Office of International Science and Engineering	-	64,228
Office of International Science and Engineering Total				<u>-</u>	<u>1,069,773</u>
Association of Public & Land-Grant Univ	47.U01	115-0977	National Science Foundation Contracts	-	108,705
Meedan	47.U02	49100421C0035	National Science Foundation Contracts	-	105,626
National Science Foundation Total				<u>2,644,289</u>	<u>54,378,873</u>
Nuclear Regulatory Commission					
U.S. Nuclear Regulatory Commission	77.008	Direct	U.S. Nuclear Regulatory Commission Scholarship and Fellowship Program	-	201,474
Nuclear Regulatory Commission Total				<u>-</u>	<u>201,474</u>
Small Business Administration					
Small Business Administration	59.037	Direct	Small Business Development Centers	796,101	1,874,114
Small Business Administration	59.075	Direct/SBAHQ21SV002424-2	COVID-19 Sheltered Venue Operators Grant Program	-	498,862
Small Business Administration Total				<u>796,101</u>	<u>2,372,976</u>

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Social Security Administration					
U.S. Social Security Administration	96.008	Direct	Social Security - Work Incentives Planning and Assistance Program	-	309,166
Social Security Administration Total				-	309,166
Research and Development Cluster Total				<u>61,442,013</u>	<u>477,653,872</u>
Student Financial Assistance Cluster					
Department of Education					
U.S. Department of Education	84.007	SEOG	Federal Supplemental Educational Opportunity Grants	-	3,641,603
U.S. Department of Education	84.033	Federal Work Study	Federal Work-Study Program	-	5,430,305
U.S. Department of Education	84.038	Direct	Federal Perkins Loan Program	-	17,413,774
U.S. Department of Education	84.063	Pell Grants	Federal Pell Grant Program	-	78,579,853
U.S. Department of Education	84.268	Direct	Federal Direct Student Loans	-	313,034,476
U.S. Department of Education	84.379	TEACH Grants	Teacher Education Assistance for College and Higher Education Grants (TEACH Grants)	-	153,410
Department of Education Total				-	<u>418,253,421</u>
Department of Health and Human Services					
U.S. Department of Health and Human Services	93.264	Direct	Nurse Faculty Loan Program (NFLP)	-	6,005,708
U.S. Department of Health and Human Services	93.264	Direct	Nurse Faculty Loan Program - ARRA	-	21,506
Nurse Faculty Loan Program - ARRA Total				-	<u>6,027,214</u>
U.S. Department of Health and Human Services	93.342	Direct	Health Professional Primary Care Loans	-	1,054,127
U.S. Department of Health and Human Services	93.342	Direct	Loans for Disadvantaged Students	-	441,885
Loans for Disadvantaged Students Total				-	<u>1,496,012</u>
U.S. Department of Health and Human Services	93.364	Direct	Nursing Student Loans	-	33,215
Department of Health and Human Services Total				-	<u>7,556,441</u>
Student Financial Assistance Cluster Total				-	<u>425,809,862</u>
Department of Agriculture					
SNAP Cluster					
MA Dept of Transitional Assistance	10.561	015858-00002	State Administrative Matching Grants for the Supplemental Nutrition Assistance Program	5,236	1,047,790
MA Dept of Transitional Assistance	10.561	016553-00002	State Administrative Matching Grants for the Supplemental Nutrition Assistance Program	9,572	2,291,262
MA Dept of Transitional Assistance	10.561	ISA_WEL44003064UMS18A	State Administrative Matching Grants for the Supplemental Nutrition Assistance Program	-	28,027
MA Dept of Transitional Assistance	10.561	CT ISA WEL 44003064 UMSS	State Administrative Matching Grants for the Supplemental Nutrition Assistance Program	-	51,833
MassHire Brockton Workforce Board	10.561	FY 20 WPP Expansion	State Administrative Matching Grants for the Supplemental Nutrition Assistance Program	-	(2,730)
State Administrative Matching Grants for the Supplemental Nutrition Assistance Program Total				<u>14,808</u>	<u>3,416,182</u>
SNAP Cluster Total				<u>14,808</u>	<u>3,416,182</u>
Department of Agriculture Total				<u>14,808</u>	<u>3,416,182</u>
Department of Commerce					
Economic Development Cluster					
Economic Development Administration	11.307	Direct	Economic Adjustment Assistance	2,817	409,467
U.S. Department of Commerce	11.307	Direct	Economic Adjustment Assistance	<u>294,468</u>	<u>407,872</u>
Economic Adjustment Assistance Total				<u>297,285</u>	<u>817,339</u>
Economic Development Cluster Total				<u>297,285</u>	<u>817,339</u>
Department of Commerce Total				<u>297,285</u>	<u>817,339</u>
Department of Education					
Special Education Cluster (IDEA)					
MA Dept of Elementary & Secondary ED	84.027	Direct	Special Education-Grants to States	-	55,987
Special Education Cluster (IDEA) Total				-	<u>55,987</u>

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
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Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
TRIO Cluster					
U.S. Department of Education	84.042	Direct	TRIO Student Support Services	-	450,711
U.S. Department of Education	84.042A	Direct	TRIO Student Support Services Program	-	734,907
U.S. Department of Education	84.044	Direct	TRIO-Talent Search	-	185,004
U.S. Department of Education	84.044A	Direct	Talent Search Program	-	201,676
U.S. Department of Education	84.047	Direct	TRIO Upward Bound	-	699,138
U.S. Department of Education	84.047A	Direct	TRIO Upward Bound	-	376,712
U.S. Department of Education	84.047M	Direct	Upward Bound Math and Science Program	118,883	358,931
U.S. Department of Education	84.217	Direct	TRIO-McNair Post-Baccalaureate Achievement	-	(5,948)
U.S. Department of Education	84.217A	Direct	McNair Post-Baccalaureate Achievement	-	358,625
TRIO Cluster Total				<u>118,883</u>	<u>3,359,756</u>
Department of Education Total				<u>118,883</u>	<u>3,415,743</u>
Department of Health and Human Services					
CCDF Cluster					
Administration for Children & Families	93.575	Direct	Child Care and Development Block Grant	15,169	67,626
CCDF Cluster Total				<u>15,169</u>	<u>67,626</u>
Head Start Cluster					
U.S. Dept of Health and Human Services	93.600	Direct	Head Start	1,148,084	5,245,217
Community Development Institute	93.600	SUB 002, SUB003	Head Start	-	2,523
Community Development Institute	93.600	SUB 004	Head Start	-	336,833
Head Start Total				<u>1,148,084</u>	<u>5,584,573</u>
U.S. Dept of Health and Human Services	93.U38	140D0420C0087	Department of Health and Human Services Contracts	-	2,983,050
U.S. Dept of Health and Human Services	93.U39	HHSP233201500006C	Department of Health and Human Services Contracts	-	(824)
Head Start Cluster Total				<u>1,148,084</u>	<u>8,566,799</u>
Department of Health and Human Services Total				<u>1,163,253</u>	<u>8,634,425</u>
Department of Housing and Urban Development					
CDBG - Entitlement Grant Cluster					
City of Springfield	14.218	015996-00002	Community Development Block Grants/Entitlement Grants	-	1,686
City of Springfield	14.218	20220617	Community Development Block Grants/Entitlement Grants	-	6,359
Community Development Block Grants/Entitlement Grants Total				<u>-</u>	<u>8,045</u>
CDBG - Entitlement Grant Cluster Total				<u>-</u>	<u>8,045</u>
Department of Housing and Urban Development Total				<u>-</u>	<u>8,045</u>
Department of Labor					
Employment Service Cluster					
MA Exec Office of Labor & Workforce Dev	17.207	3250 DEIIC100	Employment Service/Wagner-Peyser Funded Activities	-	(38,101)
MassHire Brockton Workforce Board	17.207	10SCC10	Employment Service/Wagner-Peyser Funded Activities	-	347,415
MassHire Brockton Workforce Board	17.207	Wagner Peyser	Employment Service/Wagner-Peyser Funded Activities	-	2,068
Employment Service/Wagner-Peyser Funded Activities Total				<u>-</u>	<u>311,382</u>
MassHire Brockton Workforce Board	17.801	10SCC10	Jobs for Veterans State Grants	-	51,111
Employment Service Cluster Total				<u>-</u>	<u>362,493</u>
WIOA Cluster					
MassHire Brockton Workforce Board	17.258	1027	WIOA Adult Program	-	476,252
MassHire Brockton Workforce Board	17.278	1027	WIOA Dislocated Worker formula Grants	-	520,906
MassHire Brockton Workforce Board	17.278	10SCC10	WIOA Dislocated Worker formula Grants	-	20,900
MassHire Brockton Workforce Board	17.278	MHGBWB Rapid Response Space FY21	WIOA Dislocated Worker formula Grants	-	(96)
WIOA Dislocated Worker formula Grants Total				<u>-</u>	<u>541,710</u>
WIOA Cluster Total				<u>-</u>	<u>1,017,962</u>
Department of Labor Total				<u>-</u>	<u>1,380,455</u>
Department of Transportation					
Federal Motor Carrier Safety Assistance Cluster					
Federal Motor Carrier Safety Admin	20.237	Direct	Motor Carrier Safety Assistance High Priority Activities Grants and Cooperative Agreements	-	235,815
Federal Motor Carrier Safety Assistance Cluster Total				<u>-</u>	<u>235,815</u>

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
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Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
Highway Planning and Construction Cluster					
Commonwealth of Massachusetts	20.205	INTF00X02021A0113774	Highway Planning and Construction	-	93,967
MA Department of Transportation	20.205	114775	Highway Planning and Construction	-	93,615
MA Department of Transportation	20.205	693JUZ2140000Z49EMA00JT021 016304-00002	Highway Planning and Construction	-	67,581
MA Department of Transportation	20.205	Award 35032	Highway Planning and Construction	-	37,580
MA Department of Transportation	20.205	INTF00X020A0110354	Highway Planning and Construction	-	35,318
MA Department of Transportation	20.205	INTF00X02015A0081923	Highway Planning and Construction	-	115,499
MA Department of Transportation	20.205	INTF00X02019A00107678	Highway Planning and Construction	-	6,749
MA Department of Transportation	20.205	INTF00X02019A0106343	Highway Planning and Construction	-	3,006
MA Department of Transportation	20.205	INTF00X02020A0110352 15477-00002	Highway Planning and Construction	-	10,950
MA Department of Transportation	20.205	INTF00X02020A0110353	Highway Planning and Construction	-	(34)
MA Department of Transportation	20.205	INTF00X02020A0110439	Highway Planning and Construction	-	9,274
MA Department of Transportation	20.205	INTF00X02020A0110563	Highway Planning and Construction	-	16,464
MA Department of Transportation	20.205	INTF00X02020A0114069	Highway Planning and Construction	-	30,148
MA Department of Transportation	20.205	INTF00X02021A00114201	Highway Planning and Construction	-	122,321
MA Department of Transportation	20.205	INTF00X02021A0113772	Highway Planning and Construction	6,484	46,943
MA Department of Transportation	20.205	INTF00X02021A0113773	Highway Planning and Construction	-	89,428
MA Department of Transportation	20.205	INTF00X02021A0113776	Highway Planning and Construction	-	49,576
MA Department of Transportation	20.205	INTF00X02021A0114071	Highway Planning and Construction	-	80,214
MA Department of Transportation	20.205	INTF00X02021A0114217	Highway Planning and Construction	-	66,746
MA Department of Transportation	20.205	INTF00X02022114557	Highway Planning and Construction	-	66,355
MA Department of Transportation	20.205	INTF00X02022H0115287	Highway Planning and Construction	23,902	32,969
MA Department of Transportation	20.205	INTF00X0202A0110556	Highway Planning and Construction	-	116,948
MA Department of Transportation	20.205	INTF00X02 18A91905	Highway Planning and Construction	-	77
MA Department of Transportation	20.205	INTF00X02020H0109131	Highway Planning and Construction	1,929	83,811
MA Department of Transportation	20.205	PARS# X2OSPR2R09	Highway Planning and Construction	-	40,453
MA Department of Transportation	20.205	SPR-SPR-A-018-X00	Highway Planning and Construction	-	359,115
Highway Planning and Construction Total				<u>32,315</u>	<u>1,675,073</u>
Highway Planning and Construction Cluster Total				<u>32,315</u>	<u>1,675,073</u>
Highway Safety Cluster					
MA Dept of State Police	20.616	ISAPQLFY22CRPTUMS22A 016618-00002	National Priority Safety Programs	-	22,578
MA Dept of State Police	20.616	015953-00002	National Priority Safety Programs	-	43,139
MA Exec of C of Public Safety & Security	20.616	CTEPSFFY21UMASEMANU 015839-00002	National Priority Safety Programs	-	76,497
MA Exec of C of Public Safety & Security	20.616	CTEPSFFY21UMASSBSUR	National Priority Safety Programs	-	64,454
MA Exec of C of Public Safety & Security	20.616	CTEPSFFY22UMASSBSUR	National Priority Safety Programs	-	74,018
National Priority Safety Programs Total				-	280,886
Highway Safety Cluster Total				-	280,886
Department of Transportation Total				<u>32,315</u>	<u>2,191,574</u>
Other Programs					
Agency for International Development					
U.S. Agency International Development	98.001	Direct	USAID foreign Assistance for Programs Overseas	-	446
FHI 360	98.001	P021000690	USAID foreign Assistance for Programs Overseas	96,221	321,332
USAID foreign Assistance for Programs Overseas Total				<u>96,221</u>	<u>321,778</u>
Agency for International Development Total				<u>96,221</u>	<u>321,778</u>
Department of Agriculture					
U.S. Department of Agriculture	10.500	Direct	Cooperative Extension Service	-	5,447
NATL Institute of Food and Agriculture	10.511	Direct	Smith-Lever Funding (Various Programs)	23,875	1,661,520
U.S. Department of Agriculture	10.511	Direct	Smith-Lever Funding (Various Programs)	-	94,955
Smith-Lever Funding (Various Programs) Total				<u>23,875</u>	<u>1,756,475</u>
NATL Institute of Food and Agriculture	10.514	Direct	Expanded Food and Nutrition Education Program	-	854,578
NATL Institute of Food and Agriculture	10.515	Direct	Renewable Resources Extension Act and National Focus Fund Projects	-	22,508
U.S. Department of Agriculture	10.U07	FY21 MA AG USDA	Department of Agriculture Contracts	-	13,321
U.S. Department of Agriculture	10.U08	FY22 MA AG	Miscellaneous Department of Agriculture	-	34,472
Department of Agriculture Total				<u>23,875</u>	<u>2,686,801</u>
Department of Commerce					
NE Reg Assoc of Coastal Ocean Observ Sys	11.012	N21A013014/N21A013015	Integrated Ocean Observing System (IOOS)	-	5,083
Department of Commerce Total				-	<u>5,083</u>

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Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
Department of Defense					
U.S. Department of Defense	12.617	Direct	Economic Adjustment Assistance for State Governments	-	783,497
National Security Agency	12.900	Direct	Language Grant Program	-	4,201
National Security Agency	12.903	Direct	GenCyber Grants Program	-	143,747
Department of Defense Total				<u>-</u>	<u>931,445</u>
Department of Education					
MA Dept of Elementary & Secondary ED	84.002	119-1521	Adult Education - Basic Grants to States	-	475,720
MA Dept of Elementary & Secondary ED	84.002	359-377576-2021-1255	Adult Education - Basic Grants to States	-	1,456
MassHire Brockton Workforce Board	84.002	MHGBWB ACLS FY21	Adult Education - Basic Grants to States	-	383
Adult Education - Basic Grants to States Total				<u>-</u>	<u>477,559</u>
U.S. Department of Education	84.031	Direct	Higher Education-Institutional Aid	-	47,087
U.S. Department of Education	84.031L	Direct	Higher Education Institutional Aid: Asian American and Native American Pacific Islander-Serving Institutions Program	-	356,453
Special Olympics, Inc.	84.128	00000003251	Rehabilitation Services-Service Projects	-	414,905
U.S. Department of Education	84.129B	Direct	Rehabilitation Long-Term Training	-	220,467
U.S. Department of Education	84.129H	Direct	Rehabilitation Long-Term Training	-	193,177
U.S. Department of Education	84.129P	Direct	Rehabilitation Long-Term Training	-	174,068
U.S. Department of Education	84.263C	Direct	Rehabilitation Training - Experimental and Innovative Training	-	993,627
U.S. Department of Education	84.264	Direct	Rehabilitation Training Technical Assistance Centers	-	1
San Diego State University	84.264J	SA0000764	Rehabilitation Training-Continuing Education	-	78,480
University of Washington	84.326	H264A080003	Special Education-Technical Assistance and Dissemination to Improve Services and Results for Children with Disabilities	-	(1)
U.S. Department of Education	84.327S	Direct	Special Education-Technology and Media Services for Individuals with Disabilities	149,991	454,787
Special Olympics, Inc.	84.380W	Project Unify Year 14	Direct Appropriation: Special Olympics (Annual)	-	282,935
U.S. Department of Education	84.382B	Direct	Strengthening Minority-Serving Institutions	-	210,110
U.S. Department of Education	84.407B	Direct	Coordinating Center for Transition and Postsecondary Programs for Students with Intellectual Disabilities	-	1,724,510
Maine Department of Labor	84.421	PO# CT12A 20170221000000002436	Disability Innovation Fund (DIF)	-	48,601
MA Rehabilitation Commission	84.421C	MRCNXTGENCAUMS22A	Pathways To Careers Using Partnerships, Apprenticeships and Equity	-	94,489
Nebraska Department of Education	84.421C	42231	Pathways To Careers Using Partnerships, Apprenticeships and Equity	-	184,684
VA Dept Aging Rehabilitative Services	84.421C	A262-100309	Pathways To Careers Using Partnerships, Apprenticeships and Equity	-	38,259
Pathways To Careers Using Partnerships, Apprenticeships and Equity Total				<u>-</u>	<u>317,432</u>
MA Dept of Elementary & Secondary Ed	84.424	CTDOE2183UMASSDONAHUEARPE	Student Support and Academic Enrichment Program	-	180,848
U.S. Department of Education	84.425F	Direct	COVID-19 CARES Act HEERF Institutional Portion	-	11,367,600
U.S. Department of Education	84.425E	Direct	COVID-19 CARES Act HEERF Student Aid Portion	-	67,161,739
U.S. Department of Education	84.425	Direct	COVID-19 CARES Act HEERF MSI	-	135,650
U.S. Department of Education	84.425M	Direct	COVID-19 CARES Act HEERF SIP	-	139,743
U.S. Department of Education	84.425	Direct	COVID-19 CARES Act HEERF SA	-	496,248
Department of Education Total				<u>149,991</u>	<u>85,476,026</u>
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	-	269,489
MA Dept of Developmental Services	93.072	90LRLI0022-01-00	Lifespan Respite Care Program	-	252,006
MA Department of Mental Health	93.104	SCDMH8210180H6990	Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances (SED)	-	89,180
MA Department of Mental Health	93.104	SCDMH821022085310000	Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances (SED)	-	25,484
Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances (SED) Total				<u>-</u>	<u>114,664</u>
Boston Children's Hospital	93.110	GENFD0001850558	Maternal and Child Health Federal Consolidated Programs	-	43
Boston Children's Hospital	93.110	GENFD0002054589	Maternal and Child Health Federal Consolidated Programs	-	97,493
Maternal and Child Health Federal Consolidated Programs Total				<u>-</u>	<u>97,536</u>
Health Resources Service Administration	93.178	Direct	Nursing Workforce Diversity	55,187	210,922
Baystate Medical Center, Inc.	93.243	FED703-16273-P	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	12,452
Executive Office of The Trial Court	93.243	1 H79 TI080277	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	53,235
Executive Office of The Trial Court	93.243	H79T1080277	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	9,486

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Executive Office of The Trial Court	93.243	H79TI080277	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	20,519
Executive Office of The Trial Court	93.243	H79TI081069	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	72,052
Executive Office of The Trial Court	93.243	H79TI082942	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	57,760
Substance Abuse and Mental Health Services-Projects of Regional and National Significance Total				-	225,504
MA Department of Public Health	93.283	INTF411H23SPRF61061	Centers for Disease Control and Prevention-Investigations and Technical Assistance	-	25,949
MA Department of Public Health	93.323	INTF5264HH2500224024	Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)	143,555	1,207,451
U.S. Dept of Health and Human Services	93.355	Direct	Public Health Informatics & Technology Workforce Development Program (The PHIT Workforce Development Program)	-	255,589
U.S. Dept of Health and Human Services	93.360	Direct	Biomedical Advanced Research and Development Authority (BARDA), Biodefense Medical Countermeasure Development	-	(11,459)
MA Department of Public Health	93.426	INTF4104HH2500224044	Improving the Health of Americans through Prevention and Management of Diabetes and Heart Disease and Stroke	-	(42,748)
Administration for Community Living	93.433	Direct	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	12,329	370,681
Administration for Community Living	93.464	Direct	ACL Assistive Technology	95,764	229,986
U.S. Dept of Health and Human Services	93.464	Direct	ACL Assistive Technology	164,616	188,633
ACL Assistive Technology Total				260,380	418,619
Boston Public Health Commission	93.495	FY22023682	COVID-19 Community Health Workers for Public Health Response and Resilient	-	23,183
Florida Development Disabilities Council	93.630	1052TRS21D	Developmental Disabilities Basic Support and Advocacy Grants	-	76,327
Florida Development Disabilities Council	93.630	1054EM21J	Developmental Disabilities Basic Support and Advocacy Grants	8,000	107,360
Florida Development Disabilities Council	93.630	2001FLCSD-01	Developmental Disabilities Basic Support and Advocacy Grants	16,409	45,765
Florida Development Disabilities Council	93.630	2001FLCSD-01	Developmental Disabilities Basic Support and Advocacy Grants	-	29,649
MA Developmental Disabilities Council	93.630	20.GR.1.4.1.A	Developmental Disabilities Basic Support and Advocacy Grants	-	922
MA Developmental Disabilities Council	93.630	20.GR.1.4.1.B	Developmental Disabilities Basic Support and Advocacy Grants	-	21,300
Texas Council Developmental Disabilities	93.630	20135	Developmental Disabilities Basic Support and Advocacy Grants	42,375	305,519
Developmental Disabilities Basic Support and Advocacy Grants Total				66,784	586,842
Administration for Community Living	93.631	Direct	Developmental Disabilities Projects of National Significance	178,574	896,298
U.S. Dept of Health and Human Services	93.631	Direct	Developmental Disabilities Projects of National Significance	-	45,013
Community Transportation Assn of America	93.631	387171-UMB-01 / 90DNTC0001	Developmental Disabilities Projects of National Significance	-	89,486
Community Transportation Assn of America	93.631	CTAA/ACL 90DNTC0001-01	Developmental Disabilities Projects of National Significance	-	20,659
MA Dept of Developmental Services	93.631	17UMSICIGRANTEMPLY1	Developmental Disabilities Projects of National Significance	-	28,166
Developmental Disabilities Projects of National Significance Total				178,574	1,079,622
Administration for Community Living	93.632	Direct	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	-	64,737
Boston Children's Hospital	93.632	GENFD0001858509	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	5,000	5,290
Boston Children's Hospital	93.632	PO#GENFD0002025166	COVID-19 University Centers for Excellence in Developmental Disabilities Education, Research, and Service	-	34,710
Boston Children's Hospital	93.632	PO#GENFD0002047708	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	7,500	387,617
University Centers for Excellence in Developmental Disabilities Education, Research, and Service Total				12,500	492,354
Tufts University	93.732	DHS002	Mental and Behavioral Health Education and Training Grants	-	13,093
MA Department of Public Health	93.994	INTF3054M03182122021	Maternal and Child Health Services Block Grant to the States	-	28,870
City of Worcester	93.U40	33-1406W	Department of Health and Human Services Contracts	-	63,147
Department of Health and Human Services Total				729,309	5,681,314
Department of Homeland Security					
Massachusetts Emergency Management Agency	97.036	FEMA-4097-MA	Disaster Grants - Public Assistance (Presidentially Declared Disasters)	-	1,969,638
MA Exec of Public Safety & Security	97.067	UMASSFUAS118CSEF2018	Homeland Security Grant Program	-	30,232
Department of Homeland Security Total				-	1,999,870

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Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
Department of Housing and Urban Development					
MassHire Brockton Workforce Board	14.881	FY 20 MHGBWB DHCD	Moving to Work Demonstration Program	-	(1,735)
MassHire Brockton Workforce Board	14.881	MHGBWB DHCD FY20-21	Moving to Work Demonstration Program	-	36,438
Moving to Work Demonstration Program Total				-	34,703
Department of Housing and Urban Development Total				-	34,703
Department of Justice					
Michigan State University	16.550	RC109112	State Justice Statistics Program for Statistical Analysis Centers	-	12,703
National Institute of Justice	16.560	Direct	National Institute of Justice Research, Evaluation, and Development Project Grants	35,528	162,029
Harvard School of Public Health	16.560	2016-ZA-BX-K001	National Institute of Justice Research, Evaluation, and Development Project Grants	-	1,082
National Institute of Justice Research, Evaluation, and Development Project Grants Total				35,528	163,111
MA Office for Victim Assistance	16.575	FY2021-22VOCAVWA	Crime Victim Assistance	-	431,229
City of Worcester	16.582	Contract dated 3/10/2021	Crime Victim Assistance/Discretionary Grants	-	31,825
MA Dept of Public Health, BSAS	16.585	INTF2400H78500224472	Drug Court Discretionary Grant Program	-	178,924
Executive Office of The Trial Court	16.812	BJA-2016-9197	Second Chance Act Reentry Initiative	-	4,079
Department of Justice Total				35,528	821,871
Department of Labor					
MassHire Brockton Workforce Board	17.225	10SCC10	Unemployment Insurance	-	3,048
MassHire Brockton Workforce Board	17.225	CY 21 MHGBWB RESEA	Unemployment Insurance	-	371,240
Unemployment Insurance Total				-	374,288
MassHire Brockton Workforce Board	17.245	1027	Trade Adjustment Assistance	-	6,791
MassHire Brockton Workforce Board	17.245	10SCC10	Trade Adjustment Assistance	-	25,598
MassHire Brockton Workforce Board	17.245	10SCC10	Trade Adjustment Assistance	-	(3)
Trade Adjustment Assistance Total				-	32,386
MassHire Brockton Workforce Board	17.277	BAWIB NDWG; Garber	WIOA National Dislocated Worker Grants / WIA National Emergency Grants	-	(2,928)
MassHire Brockton Workforce Board	17.277	COVID-19 NDWG-004	WIOA National Dislocated Worker Grants / WIA National Emergency Grants	-	22,826
WIOA National Dislocated Worker Grants / WIA National Emergency Grants Total				-	19,898
Jobs for the Future, Inc.	17.285	21-297	Apprenticeship USA Grants	-	37,754
Department of Labor Total				-	464,326
Department of State					
U.S. Department of State	19.009	Direct	Academic Exchange Programs - Undergraduate Programs	-	552,840
International Research and Exchanges Board	19.009	FY22-YALI-AEI-UMA-01	Academic Exchange Programs - Undergraduate Programs	-	21,276
Meridian International Center	19.009	A82-03	Academic Exchange Programs - Undergraduate Programs	-	80,955
Academic Exchange Programs - Undergraduate Programs Total				-	655,071
U.S. Department of State	19.040	Direct	Public Diplomacy Programs	-	51,658
U.S. Department of State	19.400	Direct	Academic Exchange Programs - Graduate Students	37,980	134,817
Fulbright Commission Argentina	19.402	Direct	Professional and Cultural Exchange Programs - International Visitor Leadership Program	-	56,440
International Research and Exchanges Board	19.408	FY22-FTEA-UML-01	Academic Exchange Programs - Teachers	-	298,991
Assoc of Univ Centers On Disabilities	19.415	32-17-8152	Professional and Cultural Exchange Programs - Citizen Exchanges	-	(1,527)
U.S. Department of State	19.501	Direct	Public Diplomacy Programs for Afghanistan and Pakistan	-	72,549
Department of State Total				37,980	1,267,999
Department of the Interior					
U.S. Department of Interior	15.954	Direct	National Park Service Conservation, Protection, Outreach, and Education	-	192,276
Department of the Interior Total				-	192,276
National Archives and Records Administration					
National Historical Publications & Records	89.003	Direct	National Historical Publications and Records Grants	-	10,212
National Archives and Records Administration Total				-	10,212
National Endowment for the Arts					
National Endowment for The Arts	45.024	Direct	Promotion of the Arts-Grants to Organizations and Individuals	-	21,432
National Endowment for the Arts Total				-	21,432

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2022

Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
National Endowment for the Humanities					
National Endowment for The Humanities	45.160	Direct	Promotion of the Humanities-Fellowships and Stipends	-	24,098
National Endowment for The Humanities	45.161	Direct	Promotion of the Humanities-Research	-	4,139
National Endowment for The Humanities	45.162	Direct	Promotion of the Humanities-Teaching and Learning Resources and Curriculum Development	-	15,536
National Endowment for The Humanities	45.163	Direct	Promotion of the Humanities-Professional Development	-	153,890
National Endowment for The Humanities	45.164	Direct	Promotion of the Humanities-Public Programs	-	89,049
National Endowment for the Humanities Total				<u>-</u>	<u>286,712</u>
Small Business Administration					
Small Business Administration	59.037	Direct	Small Business Development Centers	-	12,250
Small Business Administration	59.037	Direct/SBAHQ20C0033-3	COVID-19 Small Business Development Centers	-	288,601
Small Business Development Centers Total				<u>-</u>	<u>300,851</u>
Small Business Administration Total				<u>-</u>	<u>300,851</u>
Total Expenditures of Federal Awards				<u>\$ 64,141,461</u>	<u>1,023,830,196</u>

THE UNIVERSITY OF MASSACHUSETTS

Notes to the Schedule of Expenditures of Federal Awards

June 30, 2022

(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, 2022, 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.

(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. Loan activities and balances consist of the following:

	Assistance Listing Number	Balance as of June 30, 2021	Loans issued	Payments received	Balance as of June 30, 2022
Perkins Loan Program	84.038	\$ 17,413,774	—	(6,910,632)	10,503,142
Health Professions Student Loans	93.342	865,527	188,600	(214,142)	839,985
Loans for Disadvantaged Students	93.342	441,885	—	(40,298)	401,587
Nursing Faculty Loans	93.264	5,403,763	623,451	(494,717)	5,532,497
Nursing Student Loans	93.264	31,211	2,004	(4,243)	28,972
		<u>\$ 24,156,160</u>	<u>814,055</u>	<u>(7,664,032)</u>	<u>17,306,183</u>

THE UNIVERSITY OF MASSACHUSETTS

Notes to the Schedule of Expenditures of Federal Awards

June 30, 2022

(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, 2022 are summarized as follows:

	<u>Assistance Listing Number</u>	<u>Loans distributed</u>
Federal Direct Student Loans (FDL)	84.268	\$ 267,049,402
FDL Parent Loans for Undergraduate Students (PLUS)	84.268	<u>45,985,074</u>
Total Federal Direct Student Loans		<u>\$ 313,034,476</u>



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

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*

Board of Trustees of the
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, 2022, 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 15, 2022. Our report contains an emphasis of matter paragraph referring to the University's adoption, in 2022, of Governmental Accounting Standards Board (GASB) Statement No. 87, *Leases*. The financial statements of the University of Massachusetts Foundation Inc. (the Foundation) 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 the Foundation.

Report on 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.



Report on 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 15, 2022



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

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, 2022. 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, 2022.

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, 2022. 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.

Other Matters

The results of our auditing procedures disclosed an instance of noncompliance which is required to be reported in accordance with the Uniform Guidance and which is described in the accompanying schedule of findings and questioned costs as item 2022-001. Our opinion on each major federal program is not modified with respect to this matter.

Government Auditing Standards requires the auditor to perform limited procedures on the University's response to the noncompliance finding identified in our compliance audit described in the accompanying schedule of findings and questioned costs. The University is also responsible for preparing a corrective action plan to address the audit finding included in our auditors' report. The University's response and corrective action plan was not subjected to the other auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response or the corrective action plan.

Report on Internal Control Over Compliance

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 and therefore, material weaknesses or significant deficiencies may exist that were not identified. We did not identify any deficiencies in internal control over compliance that we consider to be



material weaknesses. However, as discussed below, we did identify a deficiency in internal control over compliance that we consider to be a significant deficiency.

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. We consider the deficiency in internal control over compliance described in the accompanying schedule of findings and questioned costs as item 2022-001 to be a significant deficiency.

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.

Government Auditing Standards requires the auditor to perform limited procedures on the University's response to the internal control over compliance finding identified in our audit described in the accompanying schedule of findings and questioned costs. The University is also responsible for preparing a corrective action plan to address the audit finding included in our auditors' report. The University's response and corrective action plan was not subjected to the other auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response or the corrective action plan.

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, 2022, and the related notes to the financial statements, which collective comprise the University's basic financials statements. We have issued our report thereon dated December 15, 2022, which contained unmodified opinions on those financial statements. Our audit was conducted 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
December 23, 2022

UNIVERSITY OF MASSACHUSETTS
Schedule of Findings and Questioned Questions
June 30, 2022

(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: **Yes, 2022-001**
- (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): **Yes, 2022-001**
- (g) Major programs:
 - AL Numbers 84.007, 84.033, 84.038, 84.063, 84.268, 84.379, 93.264, 93.342, 93.364 – Student Financial Assistance cluster
 - AL Numbers 84.425E, 84.425F, 84.425M – COVID-19 - Education Stabilization Fund (HEERF)
 - AL Number 10.561 – Supplemental Nutrition Assistance Program (SNAP)
- (h) Dollar threshold used to distinguish between Type A and Type B programs: **\$3,071,491**
- (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

Finding 2022-001: Loan Disbursement Notifications

Federal Agency

U.S. Department of Education

Federal Program

Student Financial Assistance Cluster (AL Number 84.268)

Federal Award Year

July 1, 2021 through June 30, 2022

UNIVERSITY OF MASSACHUSETTS

Schedule of Findings and Questioned Questions

June 30, 2022

Criteria

Per 34 CFR section 668.165, if an institution credits a student's account with a Direct Loan, the institution must notify the student or parent, no earlier than 30 days before the disbursement and no later than 7 days after the disbursement, in writing of the anticipated date and amount of the loan disbursement, the student's right or parent's right to cancel all or a portion of that loan or loan disbursement and have the loan proceeds returned to the holder of that loan, and the procedures and time by which the student or parent must notify the institution that he or she wishes to cancel the loan or loan disbursement.

Per 2 CFR 200.303, the non-Federal entity must establish and maintain effective internal control over the Federal award that provides reasonable assurance that the non-Federal entity is managing the Federal award in compliance with Federal statutes, regulations, and the terms and conditions of the Federal award.

Condition

For 10 out of 40 students selected for testwork, the federal direct loan disbursement notification was not sent to the student or parent within the required 30 days before or 7 days after the disbursement was credited to the student's account.

Cause and Effect

The University's internal controls for determining that a loan disbursement notification was sent timely for each disbursement made were not operating effectively. Specifically, the manual review and approval to submit the system-wide loan notification for all disbursements did not occur within the required timeframe. Failing to timely send a disbursement notification can cause a student or parent to not understand their right to cancel the loan and therefore can delay the ability of the right to cancel.

Questioned Costs

None identified.

Sampling

The sample was not intended to be, and was not, a statistically valid sample.

Repeat Finding in the Prior Year

No.

Recommendation

We recommend the University enhance the precision of the controls over loan disbursements to ensure that all loan disbursements through the Federal Direct Student Loan Program have a written notification sent to the student and/or parents within the required timeline of within 30 days before and 7 days after the disbursement date.

Views of Responsible Officials

The University of Massachusetts acknowledges that some students did not receive their notifications informing them of the 30 day right-to-cancel for their Federal Direct Loans within the prescribed timeframe of no later than 30 days before, but no later than 7 days after the date of disbursement. The University has implemented an automated communication process with built in internal reviews that will ensure all borrowers are notified within the required timeframe.