

University of Massachusetts

Annual Financial Report 2021





Contents

University Administration.....	2
Letter from the President.....	3
Report of Independent Auditors.....	4
Management’s Discussion and Analysis (unaudited).....	6
Financial Statements.....	20
Statements of Net Position.....	20
Statements of Revenues, Expenses, and Changes in Net Position.....	21
Statements of Cash Flows.....	22
Component Unit Statements of Financial Position.....	24
Component Unit Statement of Activities.....	24
Notes to Financial Statements.....	25
Required Supplementary Information (unaudited).....	73
Schedule of the University’s Proportionate Share of the Net Pension Liability — Massachusetts State Employees’ Retirement System.....	73
Schedule of the University’s Contributions — Massachusetts State Employees’ Retirement System.....	73
Schedule of the University’s Proportionate Share of the Net Other Postemployment Benefits (OPEB) Liability — State Retirees’ Benefit Trust.....	74
Schedule of the University’s Contributions — State Retirees’ Benefit Trust.....	74

University Administration

As of November 2021

BOARD OF TRUSTEES

Robert J. Manning (Chairman)

Swampscott, MA

R. Norman Peters, JD (Vice Chair)

Paxton, MA

Mary L. Burns

Lowell, MA

Joshua P. Bates

(UMass Boston Student Trustee,
Non-voting)
Sandwich, MA

Barkha Bhandari

(UMass Amherst Student Trustee,
Non-voting)
Amherst, MA

Zachary S. Dyer

(UMass Chan Medical School Trustee,
Non-voting)
Worcester, MA

Robert Epstein

Boston, MA

Derek S. Houle

(UMass Lowell Student Trustee, Voting)
Bellingham, MA

Stephen R. Karam

Fall River, MA

Richard M. Kelleher

Duxbury, MA

Narcisse M. Kunda

(UMass Dartmouth Student Trustee,
Voting)
Marlborough, MA

Robert Lewis, Jr.

Boston, MA

Michael V. O'Brien

Southborough, MA

Noreen C. Okawara, MD

Lowell, MA

Kerri E. Osterhaus-Houle, MD

Hudson, MA

Imari K. Paris Jeffries, Med, MA

Boston, MA

James A. Peyser

Milton, MA

Julie M. Ramos Gagliardi

Somerset, MA

Elizabeth D. Scheibel, JD

South Hadley, MA

Steven A. Tolman

Boston, MA

Victor Woolridge

Springfield, MA

Charles F. Wu, MBA

Newton, MA

OFFICERS OF THE UNIVERSITY

Martin T. Meehan, JD

President

Kumble R. Subbaswamy, PhD

Chancellor, UMass Amherst

Marcelo Suárez-Orozco, PhD

Chancellor, UMass Boston

Mark A. Fuller, PhD

Chancellor, UMass Dartmouth

Jacqueline F. Moloney, EdD

Chancellor, UMass Lowell

Michael F. Collins, MD

Chancellor, UMass Chan Medical School
and Senior Vice President for Health
Sciences

James R. Julian, JD

Executive Vice President and Chief
Operating Officer

Katherine S. Newman, PhD

System Chancellor for Academic
Programs

Lisa A. Calise

Senior Vice President for Administration
and Finance & Treasurer

Zunilka M. Barrett

Secretary to the Board of Trustees



Letter from the President

Dear Friends,

I am pleased to present the University of Massachusetts annual financial report for fiscal year 2021.

Despite the many daunting and complex challenges of this past year, the University of Massachusetts demonstrated a spirit of innovation and resilience, and advancing our mission of providing high-quality education, research and public service.

The work of recovery has begun and we are back to near-normal operations on all of our campuses with the vast majority of our 75,000 students returning to in-person classes, most employees returning to work, and all participating in the local economies of our host communities. Thanks to UMass faculty, students and staff who are deeply committed to teaching, learning and working, the University celebrated the graduation of nearly 19,000 students last spring.

We leveraged our Enterprise Risk Management program to coordinate our COVID-19 response and mitigation activities across the UMass system, facilitated access to testing and personal protective equipment, and shared near real-time information on pandemic-related updates and requirements on higher education. We also achieved near 100 percent compliance with our student, faculty, and staff vaccination requirements.

Despite the significant impacts of COVID-19 on UMass, and on the higher education sector around the country, major independent ratings agencies S&P Global, Moody's and Fitch all reaffirmed their bond ratings of the University. During FY21, all three ratings agencies cited the University's strong fiscal oversight and management, steady enrollment, positive operating performance, growth in financial resources and our signature role as the state's public research university in their positive assessments.

UMass continued to demonstrate its excellence and impact.

- All four undergraduate campuses were again ranked as National Universities by *U.S. News & World Report*.
- Our research enterprise grew to record-breaking heights, with \$687 million in research activity in our latest research report.
- Our economic contribution to Massachusetts reached \$7.5 billion, including serving as the state's third largest employer.

In addition to a tuition freeze for all in-state undergraduate and graduate students at UMass Amherst, Boston, Dartmouth and Lowell in the 2021–2022 academic year, the University increased its institutionally funded financial aid to a record high of \$352 million in FY21. These achievements were made possible, in part, by system-wide efficiency and effectiveness initiatives that have saved the University \$18.5 million over the last year, and nearly \$100 million over the last decade.

Thanks to skilled financial management, the guidance of our trustees, the outstanding leadership of our chancellors, and the numerous contributions UMass campuses made throughout the past year, I am confident that the revolutionary spirit that has defined the University of Massachusetts for generations is stronger than ever.

UMass has not only survived recent challenges, it has answered the call.

Martin T. Meehan
President

Report of Independent Auditors



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 Financial Statements

We have audited the accompanying financial statements of the business-type activities and aggregate discretely presented component units of the University of Massachusetts (the University), an enterprise fund of the Commonwealth of Massachusetts, as of and for the years ended June 30, 2021 and 2020, 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.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. The financial statements of the discretely presented component units identified in note 1 were not audited in accordance with *Government Auditing Standards*.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

Opinions

In our opinion, the 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 of Massachusetts, as of June 30, 2021 and 2020, 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.

Emphasis of Matter

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 and the aggregate remaining fund information 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, 2021 and 2020, the changes in its financial position, or where applicable, its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles. Our opinion is not modified with respect to this matter.

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 table of contents (collectively referred to as RSI) be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the *Governmental Accounting Standards Board* who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the RSI in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 15, 2021 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, 2021

Management's Discussion and Analysis (unaudited)

June 30, 2021

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, 2021 and 2020, 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 five-campus 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 2021 Massachusetts first-time bar passage rate was 75%, the fifth highest passage rate of the Massachusetts law schools.

UMass Lowell is ranked 88th among the nation's top public schools within the 2022 U.S. *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 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 has been named 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.

UMassOnline, the University of Massachusetts' nationally acclaimed online education consortium, which offered approximately 1,500 online and blended courses and had more than 25,000 students enrolled in over 311,000 course credits in academic year 2020–2021. UMassOnline students can pursue an associate's, bachelor's, master's or doctoral degree in a variety of in-demand subject areas, including liberal arts, education, management, nursing, public health and information technology. Online students learn from

the same world-class instructors as students who study on campus, and they receive an identical degree. UMassOnline programs consistently earn high rankings in *U.S. News & World Report* and *GetEducated.com*.

On September 2, 2021, the University announced the transfer of control of Brandman University to UMass to expand educational opportunities for adult learners who continue to experience an increased need for flexible, high-quality and affordable online education alternatives as they recover from the economic dislocation related to the COVID-19 pandemic. This agreement officially launched UMass Global, a nonprofit affiliate of UMass that will deliver 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 various areas. Some examples include:

- Developing and evaluating multi-year financial forecasts to guide policy and programmatic decisions;
- Implementing a quarterly close process to support accurate and complete reporting of financial results;
- Developing and evaluating quarterly projections to monitor performance and make resulting operational adjustments;
- Tracking student data in real time to quickly observe trends that may impact the bottom line;
- Implementing and tracking creative, high-impact cost containment strategies across the five campuses, including expanding the University's shared services initiative;
- Creating a reserve policy to mitigate unforeseen events, address deferred maintenance, advance University priorities, and maintain strong credit ratings; and

- Tracking several key financial ratios: operating margin, operating cash flow margin, debt service and financial leverage ratios, to evaluate University performance against peer institutions.

The University regularly tracks several key financial ratios, to evaluate performance in relation to historical trend and peers. The ratios are compiled to understand the impact of revenue and expense assumptions and decisions, to effectively communicate with key stakeholders, set goals and assist in decision making. The University added a new metric in 2020 to reflect our available cash and short-term investments available to support daily operations: operating liquidity.

Operating liquidity includes cash and cash equivalents, money market and other investments, fixed income investments, MMDT, the pooled investment Fund II and the University Short Term Pool (new in FY2021). The metric excludes the pooled investment Fund I, and cash and cash equivalents for blended component units.

The University targets an industry standard for operating liquidity of at least 90 days as a benchmark. Preserving operating liquidity is critical in times of uncertainty. The seasonality of the University's business model creates periods where cash inflows and outflows are mismatched. As a result, maintaining sufficient operating liquidity for at least the 90-day benchmark period is imperative.

Additional details for the various investment vehicles of the University are found in Note 4 of the accompanying financial statements.

COVID-19 Response

The University engaged all four quadrants of the accountability framework in 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 recently-enhanced 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, COVID-19 impacts, facilitating access to testing and personal protective equipment, and sharing near real-time information on COVID-19 updates and requirements placed on higher education; (*Risk Management, Transparency*)
- Conducting scenario-based planning 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 (*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*);
- Achieving approximately \$34 million in cost benefits (January 2020 to June 2021) by leveraging campus partnerships for information technology and library services (*Oversight, Transparency*);
- Designing a hybrid return to work pilot program for the UMass President's Office (*Oversight, Transparency*); and
- With guidance from the Advisory Working Group on Financial Planning, developing 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, at an estimated annual savings of \$16.5 million. 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. This team of professionals was 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 2021, the UPST has achieved \$33.9 million in cost savings. This was achieved through more than 170 initiatives across all five campuses and the UMass President's Office. The resulting system benefits reached



two times the target savings of \$16.5 million and three times return on investment to date of \$10.6 million. The savings achieved to date are equivalent to an 8% increase in tuition and fees.

To continue better, faster, cheaper services, a robust pipeline of process improvement and cost savings projects has been developed. The UPST has identified over 50 new projects to optimize services over the coming 12 to 18 months which are expected to result in further savings, efficiencies, and process improvements for the University. Included in these projects is a system-wide effort to update procurement, travel and business expense policies and administrative standards to optimize and reflect current operations.

Based on the success of the UPST, the University began its second shared service initiative in FY2021 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 FY2022 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, 2021 and 2020, 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 15 to the accompanying financial statements depicts the designations of unrestricted net position at June 30, 2021 and 2020, 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 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 Medical School Foundation, and the University of Massachusetts Amherst Foundation. The individual financial statements of the Building Authority can be obtained by contacting the Building Authority directly: www.umassba.net.

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 and the quasi-endowment investments. The total investments held at UMF on behalf of the University at June 30, 2021, 2020 and 2019 were \$1.1 billion, \$923.7 million and \$738.7 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, 2021, 2020 and 2019 were \$76.1 million, \$57.8 million and \$60.3 million, respectively, of which the majority is invested with UMF.

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.

The University was awarded \$255.6 million

of funding 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) in three tranches over FY2020 and FY2021. An additional \$3.0 million was awarded under the Governor's Emergency Education Relief Funds for use in FY2021. 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 distributed \$38.8 million and \$14.7 million in emergency aid to students in FY2021 and FY2020, respectively, via the student awards. Additionally, \$49.6 million and \$13.8 million was utilized to cover costs related to significant changes to the delivery of instruction due to the coronavirus, partial recovery of lost revenue and to provide additional aid to students in FY2021 and FY2020, respectively. The remaining unspent funds are expected to be used and corresponding revenue recognized in FY2022.

Selected financial highlights for the fiscal year ended June 30, 2021 include:

The University's loss before other revenues, expenses, gains, and losses was (\$47.0 million) for FY2021. Postemployment benefit expenses related to Governmental Accounting Standards Board (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) contributed significantly to this



loss. Excluding the impact of these GASB standards on the postemployment expenses, the University's income before other revenues, expenses, gains, and losses was a positive \$45.5 million.

From FY2020 to FY2021, the University's operating revenues decreased by \$123.1 million, largely due to the reduction in auxiliary services provided during FY2021. Operating expenses decreased by \$58.9 million primarily driven by reductions in spending due to pandemic restrictions. Non-operating revenues increased \$105.1 million primarily attributed to strong investment performance and funding received under HEERF. As a result, the University's net position increased \$156.3 million from \$2.4 billion in FY 2020 to \$2.6 billion in FY2021.

Net Position

Condensed schedules of net position for the University at June 30, 2021, 2020, and 2019, respectively, are presented in **Figure 2**.

Assets totaled \$7.9 billion, \$7.6 billion, and \$7.4 billion at June 30, 2021, 2020, and 2019, respectively. These balances are primarily driven by capital assets net of accumulated depreciation, which remain stable in the three years presented.

Liabilities totaled \$5.5 billion, \$5.4 billion and \$5.0 billion at June 30, 2021, 2020, and 2019, 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, liquid investments, as well as non-cash items and illiquid investments. Total net position was \$2.6 billion, \$2.4 billion and \$2.5 billion at June 30, 2021, 2020 and 2019, respectively. The largest component of net assets for the University remains the net investment in capital assets which held steady at \$2.3-\$2.4 billion for the three years. Total investments of \$1.8 billion, \$1.4 billion and \$1.4 billion at June 30, 2021, 2020 and 2019, respectively, are the next largest component of net assets.

Unrestricted net position was positive in FY2021 due to operating cost reductions, an increase in investment return as described in the Endowment Return section of this MD&A, and increased non-operating revenues from pandemic related federal funding received under HEERF. Both FY2020 and FY2019 had negative unrestricted net position, due to large employee postemployment benefits (pension and OPEB) liabilities totaling \$1.3 billion, and more modest investment returns than FY2021.

FIGURE 2 – Condensed Schedule of Net Position

As of June 30, 2021, 2020, and 2019 (\$ in thousands)

Net Position	2021	2020	2019
Assets			
Current assets	\$ 1,164,660	\$ 1,156,836	\$ 921,582
Noncurrent assets – Capital assets, net	5,243,969	5,206,569	5,164,200
Noncurrent assets – All other noncurrent assets	1,534,138	1,225,544	1,281,662
Total assets	7,942,767	7,588,949	7,367,444
Deferred Outflows of Resources	551,553	531,271	357,541
Liabilities			
Current liabilities	732,064	680,069	799,310
Noncurrent liabilities	4,761,737	4,750,458	4,237,383
Total liabilities	5,493,801	5,430,527	5,036,693
Deferred Inflows of Resources	411,451	256,926	215,910
Net Position			
Net investment in capital assets	2,306,226	2,376,333	2,343,872
Restricted – Nonexpendable	22,378	22,252	28,617
Restricted – Expendable	232,756	223,803	206,023
Unrestricted	27,708	(189,621)	(106,130)
Total net position	\$ 2,589,068	\$ 2,432,767	\$ 2,472,382

During FY2020, the University liquidated investments to ensure continued liquidity in the face of the uncertainty of the COVID19 pandemic. As of June 30, 2021, the University's endowment, held at UMF, grew by \$320.3 million to \$1.1 billion, generating a historic fiscal year return of 37.1 percent.

In FY2021, the University rebalanced its portfolio and returned investments to longer term time horizons. **Figure 3** shows the liquidation and rebalancing of the University's investments from FY2019 to FY2021.

FIGURE 3 – Investment Liquidation and Rebalancing

As of June 30, 2021, 2020, and 2019 (\$ in thousands)

Investment	2021	%	2020	%	2019	%
Short-term Investments	\$ 639,162	35%	\$ 620,771	45%	\$ 489,907	36%
Long-term Investments	1,163,888	65%	748,689	55%	869,663	64%
Total Investments	\$ 1,803,050	100%	\$ 1,369,460	100%	\$ 1,359,570	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, 2021, 2020, and 2019, are presented in **Figure 4**.

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

As of June 30, 2021, 2020, and 2019 (\$ in thousands)

Revenue and Expense	2021	2020	2019
Operating Revenues			
Tuition and fees, net of scholarships	\$ 930,613	\$ 917,876	\$ 894,904
Grants and contracts	667,149	581,850	593,086
Auxiliary enterprises	163,812	378,314	441,795
Other operating revenues	541,367	547,990	523,569
Total operating revenues	2,302,941	2,426,030	2,453,354
Operating Expenses	3,378,579	3,437,442	3,301,311
Operating Loss	(1,075,638)	(1,011,412)	(847,957)
Nonoperating Revenues (Expenses)			
Federal appropriations	5,953	6,774	7,004
State appropriations	845,481	810,518	780,221
Interest expense	(105,469)	(109,186)	(116,217)
Nonoperating federal grants	173,592	115,601	84,454
Other nonoperating income	109,046	99,753	140,047
Total nonoperating revenues (expenses)	1,028,603	923,460	895,509
Income (Loss) Before Other Revenues, Expenses, Gains and Losses			
Gains and Losses	(47,035)	(87,952)	47,552
Other Revenues, Expenses, Gains and Losses			
Capital appropriations, grants and other sources	71,120	59,041	38,665
Other additions (deductions)	132,216	(10,704)	(2,719)
Total other revenues, expenses, gains, and losses	203,336	48,337	35,946
Total Increase (Decrease) in Net Position	156,301	(39,615)	83,498
Net Position			
Net position at the beginning of the year	2,432,767	2,472,382	2,388,884
Net position at the end of the year	\$ 2,589,068	\$ 2,432,767	\$ 2,472,382

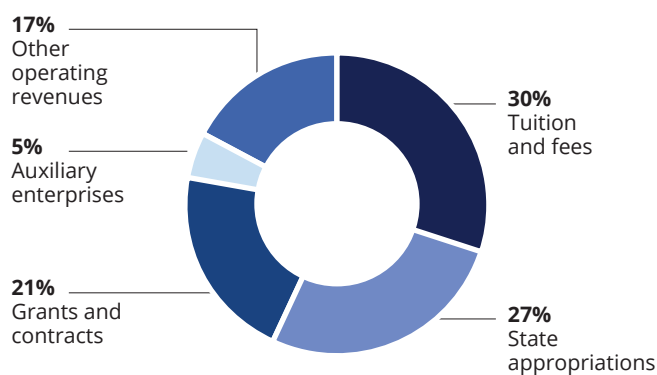
Operating Revenues and Expenses

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, remained essentially flat in FY2019 and FY2020 at \$3.2 billion, and decreased in FY2021 to \$3.1 billion.

As noted in **Figure 5**, over 50% of the University's operating revenues were from tuition and fees and state appropriations. Auxiliary enterprises revenue includes housing and dining revenue. When combined with tuition revenue and grants and contracts revenue, 56% of the University's operating revenue comes from these academic core activities.

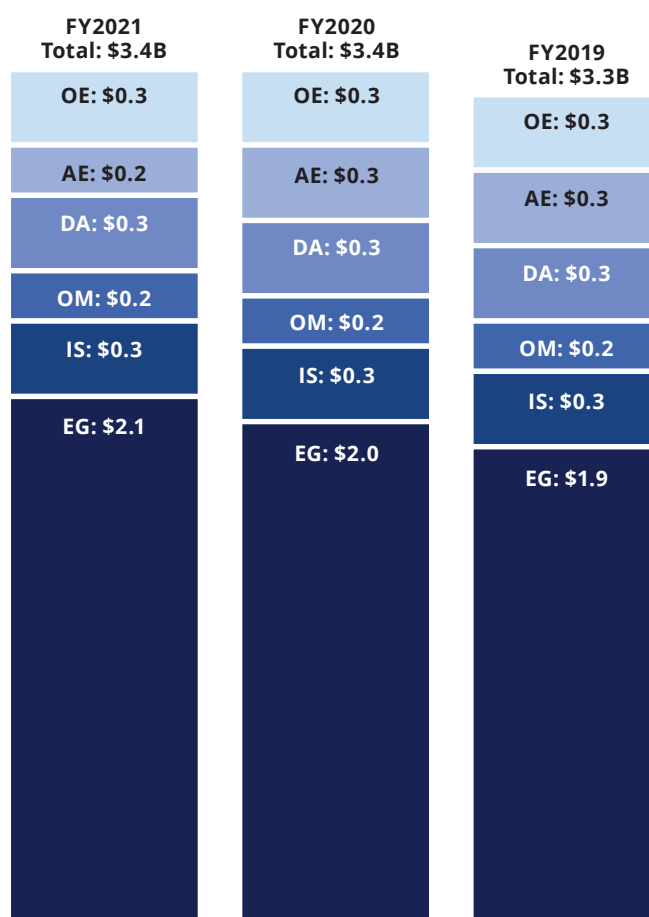
Other operating revenues includes revenues generated from CWM programs. These programs provide public consulting and services in health care financing, administration and policy to federal, state and local agencies and not-for-profit health and policy organizations. In addition to CWM activities, other 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 2021 Operating Revenues (including State Appropriations)



In FY2021 and FY2020, operating expenses, including depreciation and amortization, totaled \$3.4 billion, as compared to \$3.3 billion in FY2019. Of the FY2021 total, \$2.1 billion or 62% was used to support the academic core activities of the University, including \$552.5 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 expenses, 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 FY2021, state appropriations represented approximately 25% of operating and net non-operating 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 such as the Star Store lease at the Dartmouth campus, among others. 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 FY2021 by \$35.0 million from FY2020, primarily due to an increase in reimbursements for costs related to the new Paid Family Medical Leave (PFML) law, in addition to increases in collective bargaining determined by the Commonwealth. The University's state appropriations including fringe benefits increased in FY2020 by \$30.3 million from FY2019 primarily due to increased collective bargaining costs determined by the Commonwealth, as well as an increase in the Commonwealth's fringe benefit rate.

Figure 7 details the state appropriations for the fiscal years ended June 30, 2021, 2020, and 2019.



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 FY2021, FY2020 and FY2019, the capital support provided to the University through appropriations and grants from the Commonwealth was \$62.6 million, \$51.5 million and \$25.5 million, respectively. Beginning in FY2019, 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.

FIGURE 7 – State Appropriations

For the years ended June 30, 2021, 2020, and 2019 (\$ in thousands)

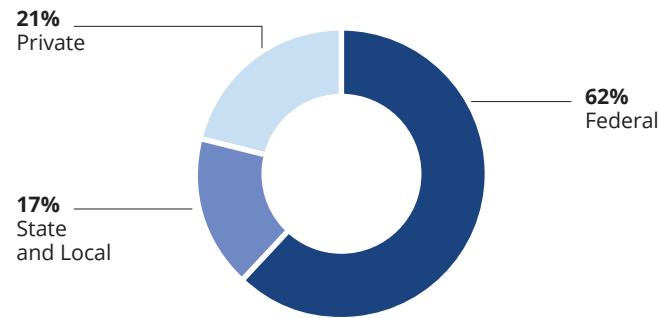
Appropriation	2021	2020	2019
State appropriations	\$ 568,350	\$ 566,941	\$ 542,095
Plus: fringe benefits	277,131	243,577	238,126
Commonwealth support	\$ 845,481	\$ 810,518	\$ 780,221

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 \$667.1 million, \$581.9 million and \$593.1 million at June 30, 2021, 2020 and 2019. **Figure 8** details the University's grant and contract revenues by source for the year ended June 30, 2021.

FIGURE 8 – Grant and Contract Revenue FY2021



Tuition and Fees

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 results in \$43.4 million in recurring revenue lost due to freezing tuition during the COVID period, \$29.1 million in academic year 2021–2022 and \$14.3 million in academic year 2020–2021. Prior to the COVID pandemic, tuition was increased for academic year 2019–2020 on average 2.5% over the prior year. 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 2020 was 66,070 FTE (75,431 headcount students), an increase of 0.1% over the previous year's enrollment of 66,010 FTE (75,065 headcount students). Enrollment in the fall of 2018 was 65,346 FTE (74,705 headcount students). The five-year enrollment growth of 3% from 2016–2020 is meaningful as other institutions of higher education have experienced declining enrollments over this period. This growth 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.

FIGURE 9 – Total Enrollment

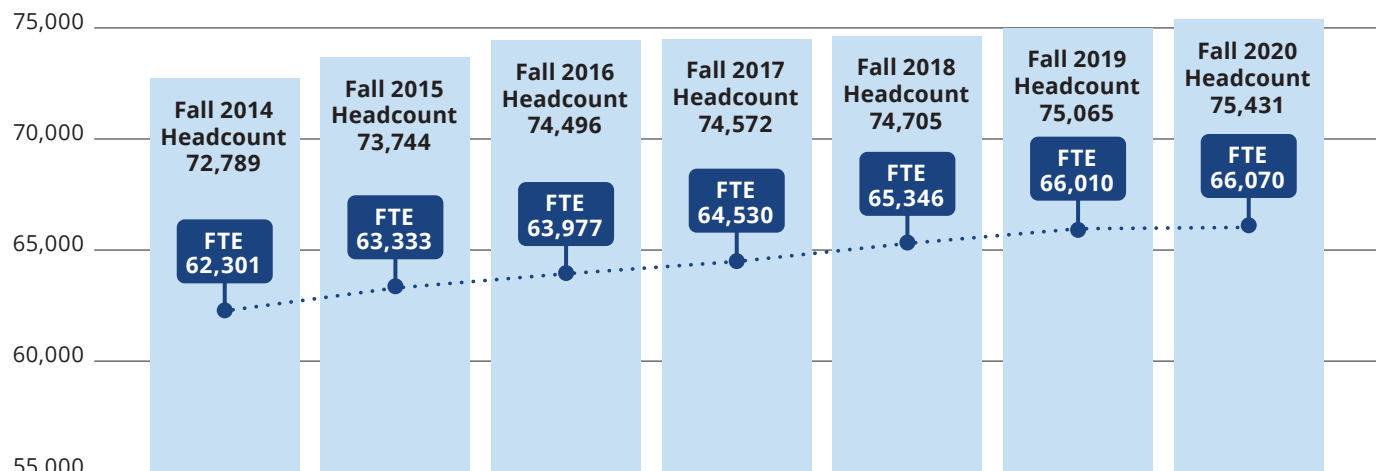
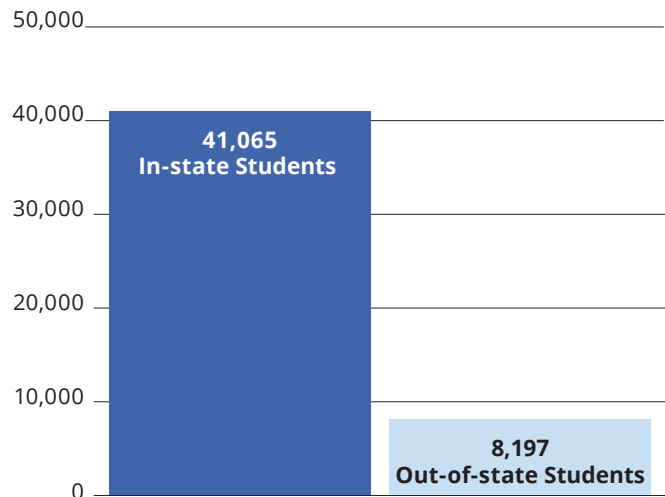


FIGURE 10 – Fall 2020 Undergraduate Enrollment by Type

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 83% of the University's total undergraduate enrollment in both fall 2020 and fall 2019, as shown in **Figure 10**.

The online learning consortium of the University, UMassOnline, has shown significant growth in enrollments, course offerings and revenue generation, benefiting the campuses and raising the profile of the University. UMassOnline provides marketing and technology support for campus online offerings that enable students, professionals, and lifelong learners to take courses anywhere, anytime. For FY2021, UMassOnline and the Continuing Education units at the five campuses collaboratively generated tuition revenue of \$145.3 million and supported 311.6 thousand course credits, an increase of 20.6% in revenue and an increase of 1.5% in course enrollments as compared to FY2020. In FY2020, UMassOnline generated tuition revenue of \$120.5 million and supported 306.9 thousand course credits, an increase of 3.8% in revenue compared to \$116.1 million and an increase of 15.1% in credits as compared to 266.6 thousand credits in FY2019.

Endowment Return

As of June 30, 2021, the endowment held at UMF grew by \$320.3 million to \$1.1 billion, generating a historic fiscal year return of 37.1 percent. Over the last decade, 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 UMass endowment totaled \$922.0 million and generated a return of 3.3 percent. In FY2019, the UMass endowment totaled \$908.4 million and generated a return of 6.7 percent.

Long-Term Debt

Long-term debt is the University's largest liability at June 30, 2021, 2020 and 2019. The University had outstanding long-term debt of \$3.3 billion at June 30, 2021, \$3.2 billion at June 30, 2020 and \$3.0 billion at June 30, 2019. 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), and WCCC.

During fiscal year 2021, the University issued \$31.0 million in commercial paper to finance the New Education and Research Building at UMass Chan with an interest rate from .16% to .22%.

On October 28, 2020, the University issued \$329.9 million of federally taxable Project Revenue Bonds, Series 2020-4. On March 25, 2021, the University issued \$312.3 million of Project Revenue Bonds, Series 2021-1 and \$46.6 million of federally taxable Project Revenue Bonds, Series 2021-2. The 2021-1 bonds included a premium of \$71.8 million. These issuances allowed the University to terminate its interest rate swap agreements and increase liquidity by restructuring the timing of certain debt service payments.

Bond obligations guaranteed by the Commonwealth on bonds outstanding Series 2008-A and 2011-2 were \$0.0 million and \$108.9 million at June 30, 2021 and 2020, respectively. These bonds were refunded with bond series 2021-1 in March 2021.

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 9 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 AA, Aa2 and AA- as rated by Fitch, Moody's and Standard & Poor's rating agencies, respectively.

During FY2021, 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

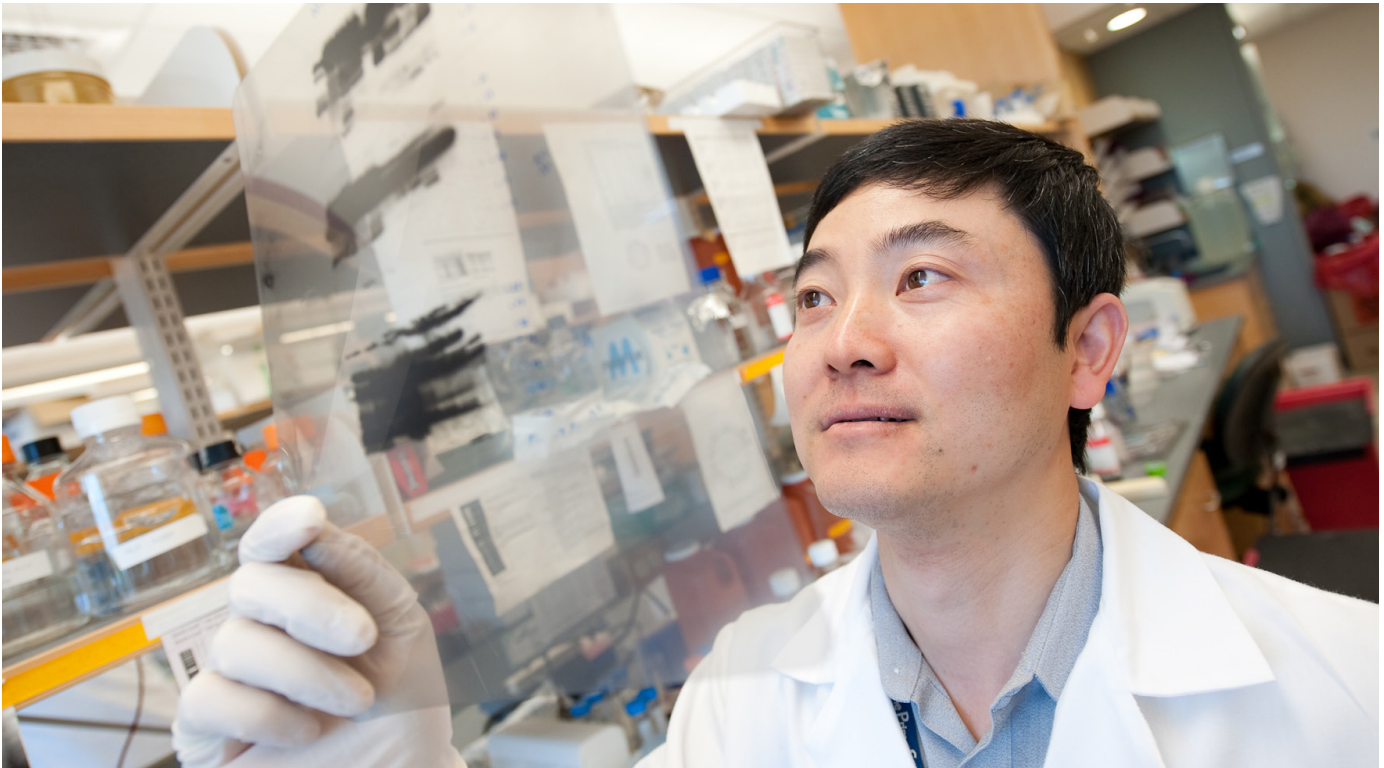
On November 10, 2020, the Governor signed into law a statutory change allowing the University and the Building Authority to borrow up to 8% of the University's total operating budget for the working capital needs of the University. Effective June 1, 2021, the University entered into line of credit agreements 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 line of credit has a maturity date of May 10, 2022. As of June 30, 2021, the University had not drawn on the line of credit.

Limitations on Additional Indebtedness

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

The Building Authority is authorized by its enabling act to issue bonds with the unconditional guarantee of the Commonwealth for the punctual payment of the interest and principal on the guaranteed bonds. The full faith and credit of the Commonwealth are pledged for the performance of its guarantee. The enabling act, as amended, currently limits to \$200.0 million the total principal amount of notes and bonds of the Building Authority that may be Commonwealth guaranteed and outstanding at any one time. During fiscal 2021, the University retired its remaining Commonwealth guaranteed debt.





Capital Plan

A majority of the capital spending during FY2021 and FY2020 related to continued investments in deferred maintenance. In September 2018, the University's Board approved an updated five-year capital plan for FY2019-FY2023 totaling \$2.1 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 FY2019-FY2023 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.

Due to the COVID-19 pandemic, the capital plan was reassessed, and \$222 million of projects were put on hold in September 2020. These projects remained on hold in FY 2021.

Factors Impacting Future Periods

There are a number of issues of University-wide importance that directly impact the financial operations of the University. By far, the biggest factor that continued to impact the University's FY2021 result is the COVID-19 pandemic. Continuing into FY2022 the University continues to monitor

the pandemic's impact on enrollment and auxiliary services. The fall semester of FY2022 began with primarily in-person learning, and occupancy for most campuses is at 80% or higher.

Other issues, such as improving academic quality, 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

For the years ended June 30, 2021 and 2020 (\$ in thousands). See accompanying notes to the financial statements.

Assets and liabilities	2021	2020
Assets		
Current assets		
Cash and cash equivalents	\$ 74,547	\$ 65,002
Cash held by state treasurer	22,242	21,474
Deposits with bond trustees	47,075	76,551
Accounts receivable, net	333,278	326,879
Short-term investments	639,162	620,771
Other current assets	48,356	46,159
Total current assets	1,164,660	1,156,836
Noncurrent assets		
Cash held by state treasurer	23,734	17,190
Deposits with bond trustees	186,336	282,379
Accounts receivable, net	44,317	50,389
Long-term investments	1,163,888	748,689
Other assets	115,863	126,897
Capital assets, net	5,243,969	5,206,569
Total noncurrent assets	6,778,107	6,432,113
Total assets	7,942,767	7,588,949
Deferred outflows of resources	551,553	531,271
Liabilities		
Current liabilities		
Accounts payable and accrued expenses	422,583	319,829
Unearned revenues and advances	102,126	96,275
Long-term debt, current portion	105,959	203,408
Commercial paper notes	31,000	-
Other current liabilities	70,396	60,557
Total current liabilities	732,064	680,069
Noncurrent liabilities		
Unearned revenues and advances	60,559	59,529
Long-term debt	3,122,716	2,992,770
Derivative instruments, interest rate swaps	-	72,981
Net pension liability	644,879	526,739
Net other postemployment benefits liability	829,808	992,991
Other long-term liabilities	103,775	105,448
Total noncurrent liabilities	4,761,737	4,750,458
Total liabilities	5,493,801	5,430,527
Deferred inflows of resources	411,451	256,926
Net position		
Net investment in capital assets	2,306,226	2,376,333
Restricted – Nonexpendable	22,378	22,252
Restricted – Expendable	232,756	223,803
Unrestricted	27,708	(189,621)
Total net position	\$ 2,589,068	\$ 2,432,767

Statements of Revenues, Expenses, and Changes in Net Position

For the years ended June 30, 2021 and 2020 (\$ in thousands). See accompanying notes to the financial statements.

Revenues and expenses	2021	2020
Operating revenues		
Tuition and fees (net of scholarship allowances of \$345,128 at June 30, 2021 and \$343,031 at June 30, 2020)	\$ 930,613	\$ 917,876
Grants and contracts	667,149	581,850
Sales and services, educational activities	30,253	31,248
Auxiliary enterprises	163,812	378,314
Other operating revenues		
Sales and services, independent operations	50,961	62,829
Sales and services, public service activities	334,567	337,709
Other	125,586	116,204
Total operating revenues	2,302,941	2,426,030
Operating expenses		
Educational and general		
Instruction	934,793	960,548
Research	552,472	485,759
Public service	90,363	84,248
Academic support	199,897	200,928
Student services	141,160	157,842
Institutional support	314,676	303,100
Operation and maintenance of capital assets	226,965	241,880
Depreciation and amortization	300,201	288,667
Scholarships and fellowships	85,500	65,469
Auxiliary enterprises	218,370	336,497
Other expenditures		
Independent operations	53,485	56,256
Public service activities	260,697	256,248
Total operating expenses	3,378,579	3,437,442
Operating loss	(1,075,638)	(1,011,412)
Nonoperating revenues (expenses)		
Federal appropriations	5,953	6,774
State appropriations	845,481	810,518
Gifts	41,262	41,996
Investment income, net	58,383	32,762
Unrealized gain (loss) on investments	(22,977)	(3,414)
Endowment return used for operations	31,965	28,113
Interest expense	(105,469)	(109,186)
Nonoperating federal grants	173,592	115,601
Other nonoperating income	413	296
Net nonoperating revenues	1,028,603	923,460
Loss before other revenues, expenses, gains, and losses	(47,035)	(87,952)
Other revenues, expenses, gains and losses		
Capital appropriations	62,592	51,525
Capital grants, contracts and gifts	8,528	7,516
Endowment return, net of amount used for operations	148,514	(2,917)
Other deductions	(16,298)	(7,787)
Total other revenues, expenses, gains, and losses	203,336	48,337
Total increase (decrease) in net position	156,301	(39,615)
Net position at beginning of year	2,432,767	2,472,382
Net position at end of year	\$ 2,589,068	\$ 2,432,767

Statements of Cash Flows

For the years ended June 30, 2021 and 2020 (\$ in thousands). See accompanying notes to the financial statements.

Cash flow	2021	2020
Cash flows from operating activities		
Tuition and fees	\$ 1,025,916	\$ 1,019,555
Grants and contracts	650,603	615,384
Payments to suppliers	(834,725)	(940,286)
Payments to employees	(1,595,504)	(1,615,385)
Payments for benefits	(465,580)	(496,826)
Payments for scholarships and fellowships	(89,267)	(90,488)
Loans issued to students and employees	(6,433)	(11,979)
Collections of loans to students and employees	15,094	15,904
Auxiliary enterprises	163,585	377,585
Sales and services, educational	30,543	30,911
Sales and services, independent operations	50,961	62,829
Sales and services, public service activities	339,788	352,748
Student related fiduciary activities inflows	8,702	13,122
Student related fiduciary activities outflows	(6,692)	(16,299)
Other receipts, net	126,966	56,239
Net cash used for operating activities	(586,043)	(626,986)
Cash flows from noncapital financing activities		
Federal appropriations	5,953	6,774
State appropriations	845,481	810,518
Grants, contracts and gifts for other than capital purposes	41,377	45,107
Nonoperating federal grants	173,592	115,601
Student organization transactions	818	(619)
Net cash provided by noncapital financing activities	1,067,221	977,381
Cash flows from capital and other financing activities		
Proceeds from debt issuances	721,153	663,061
Proceeds from premiums received	71,803	57,127
Proceeds from capital lease receipts	5,066	-
Bond issuance costs paid	(3,992)	(3,596)
Swap termination payments	(50,938)	-
Capital appropriations	62,592	51,525
Capital grants and contracts	8,413	4,405
Proceeds from sales of capital assets	2,668	-
Purchases of capital assets and construction	(322,341)	(341,247)
Principal paid on debt and leases	(708,067)	(549,788)
Interest paid on debt and leases	(153,367)	(132,468)
Net cash used for capital financing activities	(367,010)	(250,981)
Cash flows from investing activities		
Proceeds from sales and maturities of investments	1,048,212	1,652,557
Interest on investments	54,561	34,383
Purchases of investments	(1,325,603)	(1,641,650)
Net cash (used for) provided by investing activities	(222,830)	45,290
Net (decrease) increase in cash and cash equivalents	(108,662)	144,704
Cash and cash equivalents - beginning of the year	462,596	317,892
Cash and cash equivalents - end of the year	353,934	462,596

Cash flow	2021	2020
Reconciliation of operating loss to net cash used for operating activities		
Operating loss	\$ (1,075,638)	\$ (1,011,412)
Adjustments to reconcile loss to net cash used for operating activities:		
Depreciation and amortization expense	300,201	288,667
Changes in assets and liabilities:		
Accounts receivable, net	(5,393)	(36,117)
Other assets	12,659	9,954
Accounts payable and accrued expenses	85,044	(2,300)
Unearned revenues and advances	6,881	32,806
Other liabilities	8,166	(19,078)
Postemployment benefits liability, net	92,330	122,012
Fiduciary transactions	263	(780)
Changes in deferred outflows related to assets	622	2
Changes in deferred inflows related to future revenues	(11,178)	(10,740)
Net cash used for operating activities	(586,043)	(626,986)
Supplemental disclosure of noncash activities		
Assets acquired and included in accounts payable and other liabilities	49,478	29,669
Loss on disposals of capital assets	(12,083)	(9,467)
Donated assets	652	258



Component Unit Statements of Financial Position

As of June 30, 2021 and 2020 (\$ in thousands). See accompanying notes to the financial statements.

Component units	2021	2020
Assets		
Cash	\$ 733	\$ 807
Bequests receivable	5,407	3,155
Pledges receivable, net	24,292	26,854
Investments of the Foundations and held on behalf of the University	1,905,099	1,544,756
Prepaid expenses and other assets	3,718	3,374
Land, property, plant and equipment, net	15,634	16,057
Total assets	1,954,883	1,595,003
Liabilities and net assets		
Liabilities		
Accounts payable and accrued expenses	821	635
Deferred revenue	2,645	3,975
Obligations to beneficiaries of split-interest agreements	2,581	2,649
Assets held on behalf of others	1,108,178	948,085
Total liabilities	1,114,225	955,344
Net assets		
Without donor restrictions	46,521	38,417
With donor restrictions	794,137	601,242
Total net assets	840,658	639,659
Total liabilities and net assets	\$ 1,954,883	\$ 1,595,003

Component Unit Statement of Activities

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

Component units	Without donor restriction	With donor restriction	Total 2021	Total 2020
Support and revenue				
Gifts, bequests and grants	\$ 1,573	\$ 18,237	\$ 19,810	\$ 29,733
Other contributions	2,143	2,866	5,009	202,870
Total investment income, including gains - net of fees	179,082	195,508	374,590	16,864
Investment management fee	12,309	-	12,309	10,963
Other income	-	-	-	50
Net assets released from restrictions	24,919	(24,919)	-	-
Total support and revenue	220,026	191,692	411,718	260,480
Expenses				
Distributions to University	35,265	-	35,265	35,682
Program services	5,786	-	5,786	5,415
Fundraising support	7,094	-	7,094	8,005
Administrative and general	2,139	-	2,139	2,292
Total expenses	50,284	-	50,284	51,394
Excess of support and revenue over expenses	169,742	191,692	361,434	209,086
Less: Fiscal 2021 Activity related to assets held on behalf of University	(156,127)	-	(156,127)	(184,906)
Less: Fiscal 2021 Activity related to assets held on behalf of Edward M. Kennedy Institute	(3,965)	-	(3,965)	673
Transfers (from) to other funds	(1,203)	1,203	-	-
Change in value of split interest agreements	(343)	-	(343)	(550)
Change in net assets	8,104	192,895	200,999	24,303
Net assets, beginning of year	38,417	601,242	639,659	615,356
Net assets, end of year	\$ 46,521	\$ 794,137	\$ 840,658	\$ 639,659

Notes to Financial Statements

1. Summary of Significant Accounting Policies

Reporting Entity

The University of Massachusetts (University), a federal land grant institution, is governed by Massachusetts General Laws Chapter 75. Its Board of Trustees (Board of 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 comprehensive annual financial report.

The financial statements of the University include the campuses of Amherst, Boston, Dartmouth, Lowell, Chan Medical School (formerly the Medical School), and the President's Office of the University, Worcester City Campus Corporation (WCCC), the University of Massachusetts Amherst Foundation (UMass Amherst Foundation), the 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. 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 UMass Medical School Foundation was established in 1991 to support fundraising and philanthropic activities of 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 17 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.

The University of Massachusetts Lowell Applied Research Corporation (UMLARC), a legally separate 501(c)(3) non-profit corporation, was formed in the Commonwealth of Massachusetts 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, in conjunction with the University of Massachusetts Lowell and its research partners. UMLARC will also provide analytic and technology solutions to government and non-government entities to extend the impact of the University's technology enterprise. There is no financial activity for the UMLARC included within the financial statements as of June 30, 2021 or 2020. Because the memorandum of understanding between UMLARC and UMass Lowell is not yet complete, the determination of discrete or blended component unit is pending.

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 enterprises and other operating revenues. Other operating revenues include sales and services provided by UMass Chan under its Commonwealth Medicine (CWM) programs, which provide consulting and services in health care financing, administration and policy to federal, state and local agencies and not-for-profit health and policy organizations. Also included in other operating revenues are payments received by UMass Chan for educational services it provides to its clinical affiliate, UMass Memorial Medical Center (UMass Memorial).

Operating expenses include, among other items, payroll, fringe benefits, utilities, supplies and services, depreciation, and amortization. Nonoperating revenues or expenses are those in which the University receives or gives value without directly giving or receiving equal value, such as State and Federal appropriations, CARES Act 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 15 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, 2021 and 2020 was 4%.

Capital Assets

Capital assets are stated at cost on the date of acquisition or, in the case of gifts, fair value upon date of donation. Net interest costs incurred during the construction period for major capital projects are capitalized. 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 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

The University leases various facilities and equipment through capital leases. Facilities and equipment under capital leases are recorded at the present value of future minimum lease payments.

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, 2021 and 2020 (\$ in thousands) are presented in **Tables 2A** and **2B**:

TABLE 2A – Deferred Outflows of Resources

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

Deferred outflow	2021	2020
Change in fair value of interest rate swap agreements	\$ -	\$ 52,978
Debt refunding	125,201	79,648
Certain asset retirement obligations	1,158	1,781
Pension liability related	185,335	158,057
Other postemployment benefits liability related	239,859	238,807
Total deferred outflows of resources	\$ 551,553	\$ 531,271

TABLE 2B – Deferred Inflows of Resources

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

Deferred inflow	2021	2020
Sale of future revenues	\$ 54,921	\$ 66,099
Pension liability related	18,297	39,778
Other postemployment benefits liability related	338,233	151,049
Total deferred inflows of resources	\$ 411,451	\$ 256,926

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, 2021 and 2020, bond issuance costs amounted to \$4.0 million and \$3.6 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, 2021 and 2020 was \$141.4 million and \$136.2 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 funding 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. Under Section 18004(a)(1) of the Coronavirus Aid, Relief, and Economic Security (CARES) Act and Section 314(a)(1) of the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA), the University provided emergency financial aid grants to students of \$27.1 million and \$14.7 million for the years ended June 30, 2021 and 2020, respectively. These funds were recognized as revenue under non-operating federal grants. An additional, \$54.9 million and \$13.9 million for the years ended June 30, 2021 and 2020, respectively, was used to recover a portion of lost revenue and additional financial aid to students. These funds were also recorded under non-operating federal grant revenue. The remaining unused awarded amounts will be recorded in fiscal 2022 as qualifying expenses for students and the University are incurred.

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).

WCCC, UMF, UMMSF and UMDF are organizations described in Section 501(c)(3) of the Code, and are generally exempt from income taxes pursuant to Section 501(a) of the Code. WCCC, UMF, UMMSF and UMDF 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, 2021 and 2020, respectively.

Newly Implemented Accounting Standards

Effective for the fiscal year ended June 30, 2020, the University adopted GASB Statement No. 84, *Fiduciary Activities*, ("GASB 84"). This statement establishes criteria for identifying fiduciary activities and requires that fiduciary activities be reported in a Statement of Fiduciary Net Position and a Statement of Changes in Fiduciary Position. GASB 84 permits business-type activities, such as the University, to report activities that would otherwise be considered fiduciary activities in the University's Statement of Net Position and Statement of Cash Flows as operating activities if upon receipt, the funds are normally expected to be held for three months or less. Given the majority of activities are custodial amounts held for three months or less, the University did not report these activities within a Statement of Fiduciary Net Position or Statement of Changes in Fiduciary Position. These fiduciary activities were reflected in the operating activities portion of the Statement of Cash Flows from noncapital financing activities at June 30, 2021 and 2020, 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 \$46.0 and \$38.7 million at June 30, 2021 and June 30, 2020. 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 such liabilities. 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.

Deposits with bond trustees at June 30, 2021 and 2020 are summarized in **Table 3**:

TABLE 3 – Deposits with Bond Trustees

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

Deposits	2021	2020
Cash	\$ 23,904	\$ 18,410
MMDT	206,695	330,712
Permitted money market accounts	2,812	4,491
Repurchase agreements and other investments	-	5,317
Total deposits with bond trustees	\$ 233,411	\$ 358,930

At June 30, 2021, amounts restricted by bond trust agreements for capital projects and other purposes were \$217.4 million and \$16.0 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, 2021 and 2020, the bank balances of uninsured deposits totaled \$7.7 million and \$5.5 million, respectively.

Interest Rate Risk — Interest rate risk is the extent that changes in interest rates of debt investments will adversely affect the fair value of an investment. These investments include certain short-term cash equivalents, various long-term items and restricted assets by maturity in years. The University minimizes the risk of the fair value of securities falling due to changes in interest rates by ensuring securities have effective maturities of less than a year. MMDT and permitted money market accounts have effective maturities of less than one year, thereby limiting the interest rate risk.

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

4. Investments

The investment portfolio of the University reflected on the Statements of Net Position for the years ended June 30, 2021 and 2020, respectively, are summarized in **Table 4**:

TABLE 4 – Investment Portfolio

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

Investment type	2021	2020
Short-term investments	639,162	620,771
Long-term investments	1,163,888	748,689
Total	\$ 1,803,050	\$ 1,369,460

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. In the table below, these investments are identified as Foundation agency funds.

The endowment and similar investment holdings of the University, Foundation agency funds, and the Foundations, as of June 30, 2021 and 2020, respectively are summarized in **Table 5**:

TABLE 5 – Investments

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

Fund	University 2021	University 2020	Foundations 2021	Foundations 2020
Cash and cash equivalents	\$ 65,009	\$ 40,009	\$ 35,055	\$ 36,318
Money market and other investments	332,568	128,225	6,211	4,082
MMDT	117,000	117,000	-	-
Fixed income investments	192,738	144,045	1,579	1,558
Pooled investments-Fund I	-	-	853,411	576,092
Commercial ventures and intellectual property	5,950	4,532	-	40
Annuity life income funds	9,980	11,972	3,470	2,989
Total non-agency funds	\$ 723,245	\$ 445,783	\$ 899,726	\$ 621,079
Fund	Foundation Agency Funds 2021	Foundation Agency Funds 2020	Foundation Agency Funds 2021	Foundation Agency Funds 2020
Pooled investments-Fund I	920,212	608,763	920,212	608,763
Pooled investments-Fund II	9,419	314,914	9,419	314,914
Short term pool	150,174	-	150,174	-
Total Foundation agency funds	\$ 1,079,805	\$ 923,677	\$ 1,079,805	\$ 923,677
Total Investments	\$ 1,803,050	\$ 1,369,460	\$ 1,979,531	\$ 1,544,756

Fund I — Represents the endowment funds and University operating cash held at the UMF. The endowment funds include both donor-restricted endowments and quasi-endowments. The \$920.2 million of Pooled investments – Fund I, that are noted as Foundation agency funds, represent the quasi-endowments and operating cash balances invested in Fund 1 for longer term investment purposes. The investment horizon for this portfolio is 5 to 10 years.

Fund II — This fund 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. In anticipation of future cash needs, particularly in light of COVID-19 uncertainties, the majority of the assets of this pool were converted to cash equivalents in the 4th quarter of fiscal year 2020. In FY2021, \$150.0 million was transferred into the newly established University Short-Term Pool. In addition, assets of \$172.0 million were transferred into the Pooled Endowment Fund (Fund 1).

University Short-Term Pool — This newly established fund 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 in order to meet the operating needs of the University.

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 \$113.0 million and \$86.5 million, at June 30, 2021 and 2020, respectively.

The University held non-money market investments with a fair market value of \$1.0 billion and \$729.9 million at June 30, 2021 and 2020, 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, 2021 and 2020, there is no concentration of investments from one issuer equal to or greater than 5% of the portfolio. Investments issued or guaranteed by the U.S. government, as well as investments in mutual funds and other pooled investments are excluded from consideration when evaluating concentration risk.

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





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 are presented in **Table 6**:

TABLE 6 – S&P Quality Ratings, FY2021

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

Debt securities	AAA	AA	A	BBB	BB	B	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 issued commercial mortgage-backed securities	-	-	-	-	-	-	-	-
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

Rated debt investments, excluding U.S. Treasury funds, at fair value by credit quality of the University's investment portfolio as of June 30, 2020 are presented in **Table 7**:

TABLE 7 – S&P Quality Ratings, FY2020

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

Debt securities	AAA	AA	A	BBB	BB	B	Unrated	Total
Government agency bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 773	\$ 773
Asset backed securities	15,860	-	459	1,689	-	-	1,605	19,613
Commercial mortgage-backed securities	11,596	-	-	530	-	-	2,078	14,204
Government issued commercial mortgage-backed securities	-	-	-	-	-	-	624	624
Government mortgage-backed securities	-	-	-	-	-	-	5,902	5,902
Non-government backed collateralized mortgage obligations	1,576	-	-	-	-	-	350	1,926
Corporate bonds	-	3,468	29,112	47,113	1,115	511	42	81,361
Municipal and provincial bonds	-	1,190	236	347	-	-	-	1,773
Index linked government bonds	-	-	-	-	-	-	1,523	1,523
Bond funds, including exchange traded funds	270	270	1,063	1,387	380	-	-	3,370
Total debt securities	\$29,302	\$ 4,928	\$30,870	\$51,066	\$ 1,495	\$ 511	\$ 12,897	\$131,069



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.

The fair value of the rated debt investments component of the University's investment portfolio by investment maturity as of June 30, 2021 is presented in **Table 8**:

TABLE 8 – Investment Maturity, FY2021

As of June 30, 2021 (\$ 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	\$ -	\$ 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 issued commercial mortgage-backed securities	-	-	-	-	-
Government mortgage-backed securities	169	8,824	1,236	804	11,033
Non-government backed CMOs	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

The fair value of the rated debt investments component of the University's investment portfolio by investment maturity as of June 30, 2020 is presented in **Table 9**:

TABLE 9 – Investment Maturity, FY2020

As of June 30, 2020 (\$ 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	\$ -	\$ 40,211	\$ 4,842	\$ -	\$ 45,053
Government agency bonds	-	248	525	-	773
Asset backed securities	5,427	12,202	1,984	-	19,613
Commercial mortgage-backed securities	3,758	10,336	110	-	14,204
Government issued commercial mortgage-backed securities	-	-	624	-	624
Government mortgage-backed securities	2,223	3,679	-	-	5,902
Non-government backed CMOs	350	1,576	-	-	1,926
Corporate bonds	13,120	62,946	4,875	420	81,361
Municipal and provincial bonds	1,730	43	-	-	1,773
Index linked government bonds	-	1,209	314	-	1,523
Bond funds, including exchange traded funds	59	1,861	1,421	29	3,370
Total debt securities	\$ 26,667	\$ 134,311	\$ 14,695	\$ 449	\$ 176,122

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, 2021 and 2020, the University had no plans or intentions to sell such investments at amounts different from NAV.



The fair value of the University's investments by type as of June 30, 2021 is presented in **Table 10**:

TABLE 10 – 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 issued commercial mortgage-backed securities	-	-	-	-	-
Government mortgage-backed securities	-	-	11,033	-	11,033
Non-government backed CMOs	-	-	3,657	-	3,657
US Corporate bonds	-	-	84,524	42	84,566
Non US Corporate Bonds	-	-	-	-	-
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

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 are presented in **Table 11**:

TABLE 11 – Alternative Investments FY2021

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

Alternative investment	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Multi-strategy hedge funds					
Equity	\$ 219,855	-	Daily to annual	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 2 years.
Fixed income	31,261	-	Quarterly to semi-annual	60–90 days	No lock-up restrictions
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	*	Not redeemable
Private debt	16,017	10,125	Closed end funds	*	Not redeemable
Private real estate	7,355	1,475	Closed end funds	*	Not redeemable
Total	\$ 505,149	\$ 24,060			

* 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.



The fair value of the University's investments by type as of June 30, 2020 is summarized in **Table 12**:

TABLE 12 – Fair Value Hierarchy of Investments, FY2020

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

Investment	Investment 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	\$ -	\$ 452,044	\$ -	\$ -	\$ 452,044
Debt securities					
U.S. Treasury securities	-	45,053	-	-	45,053
Government agency bonds	-	-	773	-	773
Asset backed securities	-	-	19,613	-	19,613
Commercial mortgage-backed securities	-	-	14,204	-	14,204
Government issued commercial mortgage-backed securities	-	-	624	-	624
Government mortgage-backed securities	-	-	5,902	-	5,902
Non-government backed CMOs	-	-	1,602	324	1,926
US Corporate bonds	-	-	81,115	42	81,157
Non US Corporate Bonds	-	-	204	-	204
Municipal and provincial bonds	-	-	1,773	-	1,773
Index linked government Bonds	-	-	1,523	-	1,523
Bond funds, including exchange traded funds	-	3,370	-	-	3,370
Total debt securities	-	48,423	127,333	366	176,122
Equity securities					
Domestic equities	-	68,117	-	1,585	69,702
International equities	-	30,648	-	-	30,648
Total equity securities	-	98,765	-	1,585	100,350
Alternative investments					
Multi-strategy hedge funds					
Equity	181,521	-	-	-	181,521
Long/short	136,270	-	-	-	136,270
income	32,332	-	-	-	32,332
Absolute return	36,026	-	-	-	36,026
Real assets	12,881	-	-	-	12,881
Private equity and venture capital	32,420	-	-	-	32,420
Private debt	11,148	-	-	-	11,148
Private real estate	8,847	-	-	-	8,847
Total alternative investments	451,445	-	-	-	451,445
Other securities	-	-	-	-	-
Total investments at fair value	451,445	599,232	127,333	1,951	1,179,961
Cash and cash equivalents	-	-	-	-	72,499
MMDT	-	-	-	-	117,000
Total investments at cost	-	-	-	-	189,499
Total investments	\$ 451,445	\$ 599,232	\$ 127,333	\$ 1,951	\$ 1,369,460

Unfunded commitments, redemption terms, restrictions, and notice period for investments that have been valued using NAV as a practical expedient as of June 30, 2020 are presented in **Table 13**:

TABLE 13 – Alternative Investments FY2020

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

Alternative investment	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Multi-strategy hedge funds					
Equity	\$ 181,521	\$ -	Daily to annual	1–90 days	Lock-up provisions range from none to 2 years.
Long/short	136,270	-	Quarterly to annual	45–90 days	Lock-up provisions range from none to 3 years.
Fixed income	32,332	-	Quarterly to semi-annual	60–90 days	Lock-up provisions range from none to 1 year.
Absolute return	36,026	-	Quarterly to annual	45–65 days	No lock-up restrictions
Real assets	12,881	-	Annual	90 days	No lock-up restrictions
Private equity and venture capital	32,420	12,933	Closed end funds	*	Not redeemable
Private debt	11,148	13,597	Closed end funds	*	Not redeemable
Private real estate	8,847	1,513	Closed end funds	*	Not redeemable
Total	\$451,445	\$ 28,043			

* 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, 2021 and 2020 are presented in **Table 14**:

TABLE 14 – Accounts Receivable, Net

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

Accounts receivable	2021	2020
Student tuition and fees	\$ 60,329	\$ 64,299
Student loans	36,014	43,001
Pledges	30,718	38,694
Grants and contracts	116,980	93,772
CWM program	65,269	62,399
UMass Memorial	17,028	68,070
Other	85,770	43,150
Total	412,108	413,385
Less: allowance for doubtful accounts and discount to present value for pledges	(34,513)	(36,117)
Accounts receivable, net	\$ 377,595	\$ 377,268

The receivable from UMass Memorial, which is uncollateralized, represents a potential concentration of credit risk for the University. This receivable represents 4.5% and 18.0% of total accounts receivable for the University at June 30, 2021 and 2020, respectively.

6. UMass Memorial Medical Center

The University has granted UMass Memorial the right to occupy portions of UMass Chan campus facilities for a period of 99 years, expiring on June 30, 2097. As part of the ongoing agreement entered into on June 24, 1998, UMass Memorial has agreed to share responsibility for various capital and operating expenses relating to the occupied premises. UMass Memorial also contributes to capital improvements to shared facilities.

In addition, UMass Memorial has agreed to make certain payments to the University, including an annual fee of \$12.0 million, adjusted for inflation as necessary, for 99 years as long as the University continues to operate a medical school, and a participation payment based on a percentage of the net operating income of UMass Memorial. The University recognizes revenue when the participation payments are received.

The University is reimbursed by, and reimburses UMass Memorial for shared services, cross-funded employees, and other agreed upon activities provided and purchased. For the years ended June 30, 2021 and 2020, the reimbursements received for services provided to UMass Memorial were \$161.6 million and \$119.0 million, respectively. Included in these amounts are payroll paid by the University on behalf of UMass Memorial in an agency capacity in the amount of \$100.3 million and \$65.1 million for the years ended June 30, 2021 and 2020, respectively. As of June 30, 2021 and 2020, the University has recorded a receivable in the amount of \$17.0 million and \$68.1 million, respectively from UMass Memorial which includes \$10.0 million and \$38.6 million, respectively, in payroll and related fringe charges. The University has recorded a payable of \$6.4 million and \$4.8 million at June 30, 2021 and 2020, respectively, primarily for cross-funded payroll.

7. Capital Assets

Table 15 presents the University's capital assets activity for the years ended June 30, 2021 and 2020:

TABLE 15 – Capital Assets Activity

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

Asset	As of 2019	Additions	Retirements/ adjustments	As of 2020	Additions	Retirements/ adjustments	As of 2021
Land	\$ 166,024	\$ -	\$ -	\$ 166,024	\$ 4,015	\$ (52)	\$ 169,987
Buildings and improvements	7,106,326	257,356	(6,578)	7,357,104	376,699	(54,255)	7,679,548
Software	114,292	5,709	-	120,001	6,284	(217)	126,068
Equipment and furniture	717,043	37,102	(41,632)	712,513	43,560	(13,676)	742,397
Library books	46,965	-	(7,347)	39,618	-	(6,995)	32,623
Total	8,150,650	300,167	(55,557)	8,395,260	430,558	(75,195)	8,750,623
Accumulated depreciation	(3,304,737)	(288,667)	45,643	(3,547,761)	(300,945)	63,114	(3,785,592)
Total	4,845,913	11,500	(9,914)	4,847,499	(129,613)	(12,081)	4,965,031
Construction in progress	318,287	213,480	(172,697)	359,070	287,957	(368,089)	278,938
Total capital assets, net	\$5,164,200	\$ 224,980	\$ (182,611)	\$5,206,569	\$ 417,570	\$ (380,170)	\$5,243,969

The University has capitalized interest on borrowings, net of interest earned on related debt reserve funds, during the construction period of major capital projects. Capitalized interest is added to the cost of the underlying assets being constructed and is amortized over the useful lives of the assets. For the years ended June 30, 2021 and 2020, the University capitalized net interest costs of \$7.6 million and \$5.9 million, respectively.

8. Public Private Partnerships and Leases

Public Private Partnerships (PPPs)

On November 8, 2016, the Building Authority entered into an agreement whereby the Building Authority sub-leased land on the University of Massachusetts Boston campus to Provident Commonwealth Educational Resources, Inc. (PCER), a Massachusetts not-for-profit corporation, for a term of 40 years. 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, the University nor the 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 a 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 to PCER by the Building Authority is \$1.

On November 14, 2018, the Building Authority entered into an agreement whereby the Building Authority sub-leased land on the Dartmouth campus to Provident Commonwealth Educational Resources II, Inc. (PCER II), a Massachusetts not-for-profit corporation, for a term of 45 years. 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 will be \$625.0 thousand, 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 MassDevelopment pursuant to a Loan and Trust Agreement between MassDevelopment and PCER II. Neither the Building Authority, the University nor the 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 a 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 to PCER II by the Building Authority is \$1.

At June 30, 2021 and 2020, the Building Authority recorded a net receivable of \$1.5 million and 1.0 million, respectively, related to its Boston and Dartmouth ground leases.

Management evaluated the applicability of relevant GASB guidance (including GASB 14, *The Financial Reporting Entity*, GASB 39, *Determining Whether Certain Organizations Are Component Units*, GASB 60, *Accounting for Financial Reporting for Service Concession Arrangements*, and GASB 61, *The Financial Reporting Entity: Omnibus*) 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 or the University.

Capital Leases

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, 99-year periods.

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.

On October 27, 2009, the Building Authority also entered into an agreement whereby the Building Authority sub-leased land, ground-leased to the Building Authority by the Commonwealth, to EMKI. The sublease 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, 99-year periods. At the time of signing, the Building Authority received payment of \$10.0 thousand in full payment of rent due for the initial term of the sublease.

Other Leases

The Building Authority has executed long-term leases with the Commonwealth, acting by and through the Trustees of the Building Authority, covering the land on which facilities owned by the Building Authority are located on the University's campuses. These leases call for nominal annual payments to the Commonwealth. Certain of these leases renew automatically for subsequent five- or ten-year periods unless the Building Authority notifies the University that it does not wish to renew. Other leases require the Building Authority to notify the University of its desire to renew. As of June 30, 2021 and 2020, 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.

On April 1, 2014, the Building Authority entered into a lease, as lessee, with Massachusetts Mutual Life Insurance Company, as lessor, for space at Tower Square, 1500 Main Street, Springfield, Massachusetts. The initial lease began August 1, 2014 and ends July 31, 2019. In fiscal 2019, the Building Authority exercised its option to extend the lease for a period of five years. The lease now ends on July 31, 2024. Annual rent payments range from \$297.0 thousand to \$320.0 thousand. The Building Authority subleases the space to the University to be used as classroom space for its Springfield Satellite campus.

On July 17, 2014, the Building Authority entered into a lease, as lessee, with One Beacon Street Limited Partnership, as lessor, for space at One Beacon Street, Boston, Massachusetts. The lease ends December 31, 2030. Annual rent payments range from \$2.1 million to \$2.6 million. The Building Authority subleases office and classroom space at One Beacon Street to the University.

The University leases certain equipment and facilities under operating leases with terms exceeding one year, which are cancelable at the University's option with 30-day notice. The rent expense related to these operating leases amounted to \$30.6 million and \$34.9 million for the years ended June 30, 2021 and 2020, respectively. The leases primarily relate to telecommunications, software, and co-generation systems. The University also leases space to third party tenants. During the years ended June 30, 2021 and 2020, the amount reported as rental income was \$24.8 million and \$24.7 million, respectively.

Tables 16A and 16B present a schedule of the University's future minimum payments under non-cancelable leases for the next five years and in subsequent five-year periods as of June 30, 2021:

TABLE 16A – Lessor: Minimum Lease Payments to Receive

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

Fiscal year end	Direct financing lease	PPP Operating leases	Other operating leases	Total
2022	\$ 5,072	\$ 1,650	\$ 11,984	\$ 18,706
2023	5,073	1,650	9,207	\$ 15,930
2024	2,665	1,650	8,589	\$ 12,904
2025	5,002	1,650	8,380	\$ 15,032
2026	5,160	1,659	7,137	\$ 13,956
2027–2031	25,412	8,353	30,756	\$ 64,521
2032–2036	25,918	8,450	27,090	\$ 61,458
2037–2041	21,470	8,550	452	\$ 30,472
2042–2046	5,923	8,653	-	\$ 14,576
2047–2051	-	8,759	-	\$ 8,759
2052–2056	-	8,868	-	\$ 8,868
2057–2061	-	4,197	-	\$ 4,197
2062–2066	-	1,848	-	\$ 1,848
Total	\$ 101,695	\$ 65,937	\$ 103,595	\$ 271,227
Less amounts representing interest	(28,256)			
Net investment in direct financing lease	\$ 73,439			

TABLE 16B – Lessee: Minimum Lease Payments to Pay

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

Fiscal year end	Minimum to pay
2022	\$ 19,378
2023	18,318
2024	16,719
2025	15,780
2026	15,689
2027–2031	76,367
2032–2036	26,520
2037–2041	-
2042–2046	-
2047–2051	-
2052–2056	-
2057–2061	-
2062–2066	-
Total	\$ 188,771



9. Long-Term Debt

The outstanding long-term debt as of June 30, 2021, and the related activity during the fiscal year is presented in **Table 17**:

TABLE 17 – Long-term Debt, FY2021

As of June 30 (\$ in thousands)

Debt	Original borrowing	Maturity date	Interest rate	As of 2020	Additions	Reductions	As of 2021
Building Authority							
Series 2008-A	\$ 26,580	2038	Variable	\$ 16,050	\$ -	\$ (16,050)	\$ -
Series 2008-1	232,545	2038	Variable	145,515	-	(145,515)	-
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	5.8%	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	5.0%	208,725	-	-	208,725
Series 2020-1	200,840	2050	5.0%	200,840	-	-	200,840
Series 2020-2	129,830	2050	1.8–3.5%	129,830	-	-	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
Unamortized bond premium				-	-	-	-
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	3.5%	669	-	(97)	572
Total bonds payable				3,192,503	760,648	(726,669)	3,226,482
Notes and commercial paper				1,486	31,000	(1,486)	31,000
Capital lease obligations				2,189	1,308	(1,304)	2,193
Total long-term debt				\$3,196,178	\$ 792,956	\$ (729,459)	\$3,259,675

Table 18 represents the outstanding long-term debt as of June 30, 2020, and the related activity during the fiscal year:

TABLE 18 – Long-term Debt, FY2020

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

Debt	Original borrowing	Maturity date	Interest rate	As of 2019	Additions	Reductions	As of 2020
Building Authority							
Series 2008-A	\$ 26,580	2038	Variable	\$ 17,120	\$ -	\$ (1,070)	\$ 16,050
Series 2008-1	232,545	2038	Variable	154,480	-	(8,965)	145,515
Series 2009-2	271,855	2039	6.4–6.6%	16,945	-	-	16,945
Series 2009-3	28,570	2039	5.8–6.2%	24,480	-	(655)	23,825
Series 2010-1	118,985	2020	5.0%	31,055	-	(15,155)	15,900
Series 2010-2	430,320	2040	3.8–5.5%	430,320	-	-	430,320
Series 2010-3	3,005	2040	5.8%	2,615	-	(60)	2,555
Series 2011-1	135,040	2034	Variable	123,540	-	(1,530)	122,010
Series 2011-2	101,700	2034	Variable	93,955	-	(1,155)	92,800
Series 2013-1	212,585	2043	2.0–5.0%	188,675	-	(93,505)	95,170
Series 2013-2	71,970	2043	0.4–4.3%	60,530	-	(2,330)	58,200
Series 2013-3	24,640	2043	4.0–5.0%	24,240	-	(22,860)	1,380
Series 2014-1	293,890	2044	3.0–5.0%	291,890	-	(144,215)	147,675
Series 2014-2	14,085	2019	0.4–2.1%	2,905	-	(2,905)	-
Series 2014-3	67,635	2029	2.0–5.0%	54,555	-	(3,875)	50,680
Series 2014-4	157,855	2025	0.2–3.4%	61,600	-	(31,060)	30,540
Series 2015-1	298,795	2045	4.0–5.0%	298,795	-	-	298,795
Series 2015-2	191,825	2036	3.0–5.0%	186,075	-	(6,270)	179,805
Series 2017-1	165,130	2047	4.0–5.3%	165,130	-	-	165,130
Series 2017-2	19,510	2027	1.6–3.4%	18,065	-	(1,470)	16,595
Series 2017-3	187,680	2038	3.0–5.0%	178,945	-	(18,930)	160,015
Series 2018-1	37,650	2043	2.0–2.9%	37,650	-	-	37,650
Series 2019-1	208,725	2039	5.0%	208,725	-	-	208,725
Series 2020-1	200,840	2050	5.0%	-	200,840	-	200,840
Series 2020-2	129,830	2050	1.8–3.5%	-	129,830	-	129,830
Series 2020-3	319,345	2044	1.7–3.5%	-	319,345	-	319,345
Unamortized bond premium				184,172	57,147	(36,280)	205,039
Total Building Authority				2,856,462	707,162	(392,290)	3,171,334
MHEFA/MDFA							
Series A	20,000	2030	Variable	20,000	-	-	20,000
Series 2011	29,970	2034	2.5–4.0%	23,795	-	(23,795)	-
Unamortized bond premium				792	-	(792)	-
Total MHEFA/MDFA				44,587	-	(24,587)	20,000
WCCC MHEFA/MDFA							
Series 2005-D	99,325	2029	5.0–5.3%	495	-	(20)	475
Series 2011	10,495	2023	2.0–5.0%	4,995	-	(4,995)	-
Unamortized bond premium				428	-	(403)	25
Total WCCC MHEFA/MDFA				5,918	-	(5,418)	500
MDFA							
Clean renewable energy bonds	1,625	2027	3.5%	765	-	(96)	669
Total bonds payable				2,907,732	707,162	(422,391)	3,192,503
Notes and commercial paper				132,810	11,950	(143,274)	1,486
Capital lease obligations				1,836	1,095	(742)	2,189
Total long-term debt				\$3,042,378	\$ 720,207	\$ (566,407)	\$ 3,196,178

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, 2021, on long-term debt for the next five fiscal years and in subsequent five-year periods are presented in **Table 19**:

TABLE 19 – 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	Total
2022	\$ 98,990	\$ 124,770	\$ (7,439)	\$ -	\$ 763	\$ 217,084
2023	112,180	120,711	(7,224)	-	763	226,430
2024	115,800	116,261	(6,993)	1,655	754	227,477
2025	113,505	111,809	(6,729)	1,690	718	220,993
2026	109,531	107,063	(6,445)	1,725	684	212,558
2027-2031	616,106	457,771	(27,651)	8,410	3,640	1,058,276
2032-2036	603,615	319,769	(18,200)	9,045	2,982	917,211
2037-2041	635,355	178,164	(6,394)	10,480	1,539	819,144
2042-2046	407,290	64,476	-	4,645	162	476,573
2047-2051	134,010	12,805	-	-	-	146,815
Total	\$ 2,946,382	\$ 1,613,599	\$ (87,075)	\$ 37,650	\$ 12,005	\$ 4,522,561

* 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%. For Fiscal Year 2022 through 2042, the estimated subsidy reflected in the table above is 33.0%.

Variable Rate Bonds

The University classifies variable rate bonds subject to remarketing as current, unless supported by liquidity arrangements such as lines of credit or standby bond purchase agreements, which could refinance the debt on a long-term basis. In the event that variable rate bonds are put back to the University by the debt holder, management believes that the University's strong credit rating will ensure the bonds will be remarketed within a reasonable period of time.

The University had standby purchase agreements with Barclays Bank PLC (Barclays) for the 2008-1 and 2008-A bonds which requires Barclays to purchase bonds that are tendered and not remarketed. Fees incurred under the agreements related to the bonds totaled \$315.3 thousand and \$531.8 thousand for the years ended June 30, 2021 and 2020, respectively. The bonds were refunded in March 2021 and the standby purchase agreements were terminated.

The University had a standby purchase agreement with Wells Fargo Bank, N.A. (Wells) for the 2011-1 bonds which requires Wells to purchase bonds that are tendered and not remarketed. Fees incurred under the agreements related to the bonds totaled \$266.8 thousand and \$421.7 thousand for the years ended June 30, 2021 and 2020, respectively. The bonds were refunded in March 2021 and the standby purchase agreement was terminated.

Window Bonds

In fiscal year 2011, the University issued its 2011-2 bonds in a variable rate window bond mode. As with the Building Authority's other variable rate bonds, the window bondholders can tender the bonds at any time. However, unlike the University's other variable rate bonds, where the bondholders will receive payment on any tendered bonds 7 days from the tender, window bondholders are not required to receive funds for the tender until after a 30-day remarketing period and an additional 180-day funding window period. Due to this 210-day funding period, the University is not required to obtain any type of liquidity support for the 2011-2 bonds. Window bondholders receive an interest rate on the window bonds at a fixed spread over the Securities Industry and Financial Markets Association Municipal Swap Index™ ("SIFMA"). The initial spread to the SIFMA index is 9 basis points. The bonds were refunded in March 2021.

Bond Refundings

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.

In FY2020, the University issued \$319.3 million of Senior Series 2020-3 bonds, which advance refunded \$22.7 million of Boston bonds issued under the Massachusetts Health and Academic Facilities Authority (MHEFA) Series 2011 and \$4.1 million of the WCCC Series 2011 bonds. The Series 2020-3 bonds also refunded \$88.3 million of the University's 2013-1 bonds, \$22.4 million of the University's 2013-3 bonds, and \$143.5 million of the University's 2014-1 bonds. 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 on the University's financial statements.

During fiscal year ending June 30, 2021 and 2020, approximately \$619.0 and \$281.0 million of bonds outstanding from refunding activities is considered defeased, respectively.



Bond Premium

In FY2021, the University received premiums at issuance totaling \$71.8 million. The University amortizes the premiums received as a reduction of interest expense over the life of the respective bond issue. In FY2020, the University received premiums at issuance totaling \$57.1 million.

Interest Rate Swaps

During FY2021, the University refunded all of its hedged variable rate debt and terminated the associated interest rate swaps. In accordance with GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*, any previously recorded deferred outflows related to the terminated interest rate swaps have been reclassified as deferred outflows related to debt refundings and are being amortized as a component of interest expense over the life of the old debt or the life of the new debt, whichever is shorter.

The University's hedging derivative instruments at June 30, 2020 are presented in **Table 20**:

TABLE 20 – Hedging Derivative Instruments

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

Series	Derivative instruments – liability June 30, 2020	Type of hedge	Financial statement classification for changes in liability
Series 2008-1 Swap	(32,068)	Cash Flow	Non-current liability
Series 2008-A Swap	(3,795)	Cash Flow	Non-current liability
Series 2006-1 Swap	(37,118)	Cash Flow	Non-current liability
Total	\$ (72,981)		

Commercial Paper

The maximum aggregate principal amount of commercial paper the University may have outstanding at one time is \$200.0 million. The University's Series 2013-A2 are secured by standby liquidity facility agreement that expires in August 12, 2022. As of June 30, 2021 the outstanding commercial paper had a term of 91 days. During FY2021 and FY2020, the University issued \$31.0 million and \$10.5 million of commercial paper, respectively. As of June 30, 2021 and 2020, the University had an outstanding commercial paper balance of \$31.0 million and \$0.0 million, respectively. The University incurred total fees of \$0.7 million in FY2021 and FY2020, respectively, associated with the use of commercial paper.

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 line of credit has a maturity date of May 10, 2022. As of June 30, 2021, the University had not drawn on the line of credit.

10. Other Liabilities

Table 21 shows current and long-term portions of other liabilities as recorded in the Statements of Net Position:

TABLE 21 – Current Portion and Total Other Liabilities

As of June 30 (\$ in thousands)

Liabilities	As of June 30, 2020	Current portion as of June 30, 2020	As of June 30, 2021	Current portion as of June 30, 2021
Compensated absences*	\$ 113,892	\$ 88,722	\$ 121,440	\$ 97,562
Workers' compensation*	13,256	2,550	18,538	2,541
Unearned revenues	135,816	91,037	142,951	96,685
Advances and deposits	19,988	5,238	19,734	5,441
Other Liabilities	170,827	60,557	136,675	70,396

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

11. Fringe Benefits

During the years ended June 30, 2021 and 2020, the Commonwealth paid \$364.9 million and \$383.5 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 \$119.3 million and \$142.1 million during the years ended June 30, 2021 and 2020, respectively. The remaining portion is included in revenue as state appropriations.



12. Benefit Plans

Defined Benefit Plan

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

MSERS provides retirement, disability, survivor and death benefits to members and their beneficiaries. Massachusetts General Laws (MGL) establishes uniform benefit and contribution requirements for all contributory PERS. These requirements provide for superannuation retirement allowance benefits up to a maximum of 80% of a member's highest three-year to five-year average annual rate of regular compensation depending on the date of hire. Benefit payments are based upon a member's age, length of creditable service, and group creditable service, and group classification. The authority for amending these provisions rests with the Legislature.

The MSERS' funding policies were established by Chapter 32 of MGL. The Legislature has the authority to amend these policies. The annuity portion of the MSERS retirement allowance is funded by employees, who contribute a percentage of their regular compensation. Costs of administering the plan are funded out of plan assets.

Member contributions for MSERS vary depending on the most recent date of membership, as presented in **Table 22**:

TABLE 22 – 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 \$141.7 million and \$134.8 million for the years ended June 30, 2021 and 2020, respectively. Annual covered payroll was 78.3% and 78.0% of annual total payroll for the University for the years ended June 30, 2021 and 2020, 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, 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. The net pension liability measured as of June 30, 2020 was determined based on a measurement date of June 30, 2019 from an actuarial valuation as of January 1, 2019 rolled forward to June 30, 2019. 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, 2021 and 2020, the University reported a liability of \$644.9 million and \$526.7 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, 2020 and 2019 was 3.76% and 3.60%, respectively.

For the fiscal years ended June 30, 2021 and 2020, the University recognized pension expense of \$100.9 million and \$93.2 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, 2021 and 2020, presented in **Tables 23A** and **23B**:

TABLE 23A – 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

TABLE 23B – University's Proportionate Share of MSERS, FY2020

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

Pension resource	Deferred outflows of resources	Deferred inflows of resources
Changes of assumptions	\$ 39,043	\$ -
Changes in proportion due to internal allocation	59,974	25,043
Employer contributions after measurement date	40,617	-
Differences between expected and actual experience	17,493	6,851
Net difference between projected and actual investment earnings on pension plan investments	-	7,857
Changes in proportion from Commonwealth	930	27
Total	\$ 158,057	\$ 39,778

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 in the net pension liability in the year 2022. The remaining difference between the University's balances of deferred outflows and inflows of resources related to pension liability will be recognized in pension expense as presented in **Table 24**:

TABLE 24 – Amortization of Pension Expense in Future Years

(\$ in thousands)

Year ended June 30	Pension
2022	\$ 26,867
2023	35,015
2024	36,106
2025	26,993
2026	10,562
Total	\$ 135,543

Actuarial Assumptions

Significant actuarial assumptions used at each respective measurement date are presented in **Table 25**:

TABLE 25 – Actuarial Assumptions

Assumption	June 30, 2020	June 30, 2019
Investment rate of return	7.15%	7.25%
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-2016 **	RP-2014 Blue Collar Employees Scale MP-2016 **
Mortality rates: Post-retirement	RP-2014 Blue Collar Healthy Annuitant Scale MP-2016 **	RP-2014 Blue Collar Healthy Annuitant Scale MP-2016 **
Disability	RP-2014 Blue Collar Healthy Annuitant Scale MP-2016 **	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.

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, 2020 and 2019 are summarized in **Tables 26A** and **26B**:

TABLE 26A – Target Asset Allocation and Expected Real Rate of Return, FY2020

For the year ended June 30, 2020 (\$ in thousands)

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%	

TABLE 26B – Target Asset Allocation and Expected Real Rate of Return, FY2019

For the year ended June 30, 2019 (\$ in thousands)

Asset class	Target allocation	Long-term expected real rate of return
Global equity	39.00%	4.90%
Core fixed income	15.00%	1.30%
Private equity	13.00%	8.20%
Portfolio completion strategies	11.00%	3.90%
Real estate	10.00%	3.60%
Value added fixed income	8.00%	4.70%
Timber / natural resources	4.00%	4.10%
Total	100.00%	

Discount Rate

The discount rate used to measure the total pension liability was 7.15% and 7.25% at June 30, 2020 and 2019, 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 27 illustrates the impact of a 1% change in the discount rate for the net pension liability at June 30, 2021 and 2020 (\$ in thousands):

TABLE 27 – Discount Rate Sensitivity

Discount Rate Sensitivity	1% Decrease	Current discount rate	1% Increase
June 30, 2021	\$ 849,667	\$ 644,879	\$ 476,558
June 30, 2020	701,230	526,739	377,816

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, 2021 and 2020, there were 2,057 and 2,129 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 \$8.5 million and \$8.0 million in 2021 and 2020, respectively. University employees contributed \$19.6 million and \$19.3 million in 2021 and 2020, 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 for 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, 2021 and 2020, the plan assets of the Gap Plan were \$9.4 million and \$6.2 million, respectively.

13. 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, 2021 and 2020, 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, 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. The total OPEB liability as of June 30, 2020 was determined based on a measurement date of June 30, 2019 from an actuarial valuation as of January 1, 2019 rolled forward to June 30, 2019. 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, 2021 and 2020, the University reported a liability of \$829.8 million and \$993.0 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, 2020 and 2019 was 4.01% and 5.43%, respectively.

For the fiscal years ended June 30, 2021 and 2020, the University recognized OPEB expense of \$40.5 million and \$96.9 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, 2021, as presented in **Tables 28A** and **28B**:

TABLE 28A – 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

TABLE 28B – University's Proportionate Share of OPEB, FY2020

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

OPEB Resources	Deferred outflows of resources	Deferred inflows of resources
Changes of assumptions	\$ 764	\$ 149,320
Changes in proportion due to internal allocation	174,758	-
Employer contributions after measurement date	21,040	-
Differences between expected and actual experience	39,824	1,272
Net difference between projected and actual investment earnings on OPEB plan investments	-	457
Changes in proportion from Commonwealth	2,421	-
Total	\$ 238,807	\$ 151,049

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 in the net OPEB liability in the year 2022. The remaining difference between the University's balances of deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense as presented in **Table 29**:

TABLE 29 – Amortization of OPEB Expense in Future Years

(\$ in thousands)

Year ended June 30	OPEB
2022	\$ (34,914)
2023	(31,040)
2024	(17,893)
2025	(17,078)
2026	(13,988)
Total	\$ (114,913)



Actuarial Assumptions

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

2020 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 30** for annual healthcare cost trend rates.

TABLE 30 – 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 31**. These proportions are established separately for non-Medicare and Medicare coverage for each product type.

TABLE 31 – 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 2019 measurement date are as follows:

2019 Long-term rate of return on investment: 7.25%

Annual healthcare cost trend rates:

Medical: 7.5% decreasing by 0.5% each year to 5.5% in 2023 and 2024 and then decreasing 0.5% each year to an ultimate rate of 4.5% in 2026

Employer group waiver program: 5% per year until 2025, then decrease to 4.5% in 2026

Administrative costs:

4.5%

Mortality rates:

RP-2014 Blue Collar Employees projected with Scale MP-2016 with females set forward one year

Participation rates:

- 100% of all retirees who currently have health care coverage will continue the same coverage, except the following:
 - Retirees under the age of 65 with POS/PPO coverage switch to Indemnity at age 65
 - Retirees over the age of 65 with POS/PPO coverage switched to HMO
- Current retirees and spouses - Medicare coverage upon attainment of age 65
- Future retirees - Medicare coverage upon attainment of age 65
- 85% of current and future contingent eligible participants will elect health care benefits at 55 or later
- Actives, upon retirement, take coverage, and are assumed to have the following coverage show in **Table 32:**

TABLE 32 – Future Participation Rates

Plan	Retirement age under 65	Retirement age over 65
Indemnity	25.0%	85.0%
POS/PPO	60.0%	0.0%
HMO	15.0%	15.0%

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, 2020 and 2019 are summarized in **Tables 33A** and **33B**:

TABLE 33A – Target Asset Allocation as of June 30, 2020

(\$ in thousands)

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 target allocation	100.00%	

TABLE 33B – Target Asset Allocation as of June 30, 2019

(\$ in thousands)

Asset class	Target allocation	Long-term Expected Real Rate Of Return
Global equity	39.00%	4.90%
Core fixed income	15.00%	1.30%
Private equity	13.00%	8.20%
Portfolio completion strategies	11.00%	3.90%
Real estate	10.00%	3.60%
Value added fixed income	8.00%	4.70%
Timber / natural resources	4.00%	4.10%
Total target allocation	100.00%	

Discount Rate

The discount rates used to measure the total OPEB liability as of June 30, 2020 and 2019 were 2.28% and 3.63%, respectively. These rates were based on a blend of the Bond Buyer Index rates of 2.21% and 3.51%, respectively, as of the measurement dates June 30, 2020 and 2019 and the long term rate of return on Plan investments of 7.15% and 7.25%, 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 2028. 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, 2020 and 2019.

Sensitivity Analysis of Discount

Table 34 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:

TABLE 34 – 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	\$ 934,562	\$ 829,808	\$ 697,550
June 30, 2020	1,185,311	992,991	840,934

Sensitivity Analysis of Healthcare Cost Trend Rate

Table 35 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:

TABLE 35 – 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	\$ 673,996	\$ 829,808	\$ 1,036,817
June 30, 2020	818,350	992,991	1,223,411



14. Operating Expenses and Interest

Table 36 summarizes the University's operating and interest expenses by natural and functional classification for the year ended June 30, 2021:

TABLE 36 – 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	\$ 97,210	\$ -	\$ -	\$ -	\$ 934,793
Research	325,462	227,010	-	-	-	552,472
Public service	70,992	19,371	-	-	-	90,363
Academic support	147,941	51,956	-	-	-	199,897
Student services	118,152	23,008	-	-	-	141,160
Institutional support	199,746	114,930	-	-	-	314,676
Operation and maintenance of plant	115,842	111,123	-	-	-	226,965
Depreciation and amortization	-	-	-	300,201	-	300,201
Scholarships and fellowships	-	-	85,500	-	-	85,500
Auxiliary enterprises	120,690	97,680	-	-	-	218,370
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	\$ 936,944	\$ 85,500	\$ 300,201	\$ -	\$ 3,378,579
Interest expense	-	-	-	-	105,469	105,469
Total operating expenses and interest	\$ 2,055,934	\$ 936,944	\$ 85,500	\$ 300,201	\$ 105,469	\$ 3,484,048



Table 37 summarizes the University's operating expenses and interest by natural and functional classification for the year ended June 30, 2020:

TABLE 37 – Operating Expenses and Interest, FY2020

For the year ended June 30, 2020 (\$ in thousands)

Expense / Interest	Compensation and benefits	Supplies and services	Scholarships and fellowships	Depreciation and amortization	Interest	Total
Educational and general:						
Instruction	\$ 839,809	\$ 120,739	\$ -	\$ -	\$ -	\$ 960,548
Research	297,775	187,984	-	-	-	485,759
Public service	72,386	11,862	-	-	-	84,248
Academic support	148,926	52,002	-	-	-	200,928
Student services	124,158	33,684	-	-	-	157,842
Institutional support	199,420	103,680	-	-	-	303,100
Operation and maintenance of plant	127,786	114,094	-	-	-	241,880
Depreciation and amortization	-	-	-	288,667	-	288,667
Scholarships and fellowships	-	-	65,469	-	-	65,469
Auxiliary enterprises	166,297	170,200	-	-	-	336,497
Other expenditures						
Independent operations	25,955	30,301	-	-	-	56,256
Public service activities	87,482	168,766	-	-	-	256,248
Total operating expenses	\$ 2,089,994	\$ 993,312	\$ 65,469	\$ 288,667	\$ -	\$ 3,437,442
Interest expense	-	-	-	-	109,186	109,186
Total operating expenses and interest	\$ 2,089,994	\$ 993,312	\$ 65,469	\$ 288,667	\$ 109,186	\$ 3,546,628

15. 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 38 summarizes the University's unrestricted net position as of June 30, 2021 and 2020:

TABLE 38 – Unrestricted Net Position

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

Unrestricted resource	2021	2020
Unexpended plant and facilities	\$ 226,882	\$ 222,367
Auxiliary enterprises	106,074	67,456
Education and general	396,715	370,913
Quasi-endowment	475,167	355,374
Stabilization	144,684	124,889
Other unrestricted	84,209	(16,927)
Subtotal	1,433,731	1,124,072
Unfunded portion of pension liabilities	(477,841)	(408,460)
Unfunded portion of postretirement benefits other than pension liabilities	(928,182)	(905,233)
Total unrestricted net position	\$ 27,708	\$ (189,621)

16. Commitments and Contingencies

The University has outstanding purchase commitments under construction contracts and real estate agreements of \$185.6 million and \$111.9 million at June 30, 2021 and 2020, 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, 2021 and 2020 of \$41.2 million and \$42.1 million, respectively.

The University, as an agency of the Commonwealth, is self-insured for property loss exposure, subject to appropriation from the state legislature. However, properties owned by the Building Authority located on a campus of the University, such as the Mullins Center, dining commons, and most dormitories, are insured by the Building Authority. The University and its employees are protected against tort claims through sovereign immunity under Chapter 258 of the Massachusetts General Laws. The University maintains certain liability insurance policies, including commercial general liability, leased automotive liability, directors and officers and comprehensive crime policies. Employees of the University are covered for workers' compensation protection under Chapter 152 of the Massachusetts General Laws. The University has recorded a liability for future expected costs of its workers' compensation claims of \$18.5 million and \$13.3 million as of June 30, 2021 and 2020, respectively. Estimated future payments related to such costs have been discounted at a rate of 4%. Refer to Note 10 for further information on worker's compensation balances year over year.

On June 28, 2019, the Authority entered into an agreement to lease property located at 200 Mount Vernon Street in Dorchester, Massachusetts to Bayside Property Owner, LLC ("Bayside"), a Delaware limited liability company. The developer plans to build a mixed-use urban innovation campus at the site. Bayside deposited \$7.0 million into an escrow account on July 2, 2019. In June 2020, Bayside deposited an additional \$1.0 million into an escrow account in order to extend the agreement. In December of 2020, Bayside deposited an additional \$ 1.0 million to extend the agreement. In June of 2021 Bayside deposited an additional \$1.0 million to extend the agreement. There is \$10.0 million in escrow at this time. These funds will be applied to the initial fixed rent payment at closing. Under the terms of the agreement, the developer, subject to certain contingencies, may enter into a 99-year ground lease for an upfront payment of up to \$235.0 million, with a minimum lease price of \$192.0 million. The developer can extend the term of the agreement up to five consecutive periods of six months each. Additionally, the University has the ability to terminate the agreement at any time subject to the terms of the Agreement to Lease.

The University is a defendant in various lawsuits and is subject to various contractual matters; however, University management is of the opinion that the ultimate outcome of all litigation or potential contractual obligations will not have a material effect on the financial position, financial results or cash flows of the University.

17. Blended Component Units

Condensed information for the University's blended component units, the Building Authority and WCCC, is presented in **Tables 39A, 39B and 39C** as of June 30, 2021:

TABLE 39A – 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	\$ 3,798,946	\$ -	\$ 372,320	\$ -
Other assets	629,090	(70,564)	155,353	(2,544)
Deferred outflows	119,261	-	8,764	-
Total assets and deferred outflows	4,547,297	(70,564)	536,437	(2,544)
Debt, including commercial paper	3,205,465	-	329,798	-
Other liabilities	146,021	(7,331)	24,981	(2,544)
Total liabilities	3,351,486	(7,331)	354,779	(2,544)
Total net position	\$ 1,195,811	\$ (63,233)	\$ 181,658	\$ -

TABLE 39B – 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	\$ 222,786	\$ (96,164)	\$ 80,241	\$ (53,591)
Total revenues	222,786	(96,164)	80,241	(53,591)
Operation and maintenance of capital assets	6,964	(13,266)	25,834	(23,782)
Depreciation	156,373	-	19,769	-
Interest expense	108,800	(83,909)	6,636	-
Other expenses	7,318	(57)	19,619	(29,809)
Total expenses	279,455	(97,232)	71,858	(53,591)
Increase in net position	\$ (56,669)	\$ 1,068	\$ 8,383	\$ -

TABLE 39C – 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 operating activities	\$ 117,965	\$ 1,068	\$ 4,976	\$ -
Net cash provided by (used in) investing activities	7,080	-	(51,428)	-
Net cash provided by (used in) financing activities	(248,344)	-	47,861	-
Change in cash and cash equivalents	\$ (123,299)	\$ 1,068	\$ 1,409	\$ -

Condensed information for the University's blended component units, the Building Authority and WCCC, is presented in **Tables 40A, 40B and 40C** as of June 30, 2020:

TABLE 40A – Condensed Information from the Statements of Net Position, FY2020

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

Condensed Information from the Statements of Net Position	Building Authority	Eliminations	WCCC	Eliminations
Capital assets, net	\$ 3,721,176	\$ -	\$ 332,596	\$ -
Other assets	752,153	(68,481)	184,611	(2,595)
Deferred outflows	125,965	-	6,660	-
Total assets and deferred outflows	4,599,294	(68,481)	523,867	(2,595)
Debt, including commercial paper	3,171,334	-	331,422	-
Other liabilities	175,480	(4,180)	19,170	(2,595)
Total liabilities	3,346,814	(4,180)	350,592	(2,595)
Total net position	\$ 1,252,480	\$ (64,301)	\$ 173,275	\$ -

TABLE 40B – Condensed Information from the Statements of Revenues, Expenses, and Changes in Net Position, FY2020

For the year ended June 30, 2020 (\$ in thousands)

Condensed Information from the Statements of Revenues, Expenses, and Changes in Net Position	Building Authority	Eliminations	WCCC	Eliminations
Other revenues	\$ 295,892	\$ (126,525)	\$ 78,493	\$ (50,800)
Total revenues	295,892	(126,525)	78,493	(50,800)
Operation and maintenance of capital assets	9,470	(11,404)	27,689	(24,108)
Depreciation	150,808	-	20,350	-
Interest expense	110,990	(86,372)	8,003	-
Other expenses	6,609	(3,100)	16,217	(26,692)
Total expenses	277,877	(100,876)	72,259	(50,800)
Increase in net position	\$ 18,015	\$ (25,649)	\$ 6,234	\$ -

TABLE 40C – Condensed Information from the Statements of Cash Flows, FY2020

For the year ended June 30, 2020 (\$ in thousands)

Condensed Information from the Statements of Cash Flows	Building Authority	Eliminations	WCCC	Eliminations
Net cash provided by operating activities	\$ 200,498	\$ (25,649)	\$ 28,714	\$ -
Net cash provided by (used in) investing activities	3,126	-	(17,418)	-
Net cash used in financing activities	(81,047)	-	(9,613)	-
Change in cash and cash equivalents	\$ 122,577	\$ (25,649)	\$ 1,683	\$ -

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

18. Discretely Presented Component Units

As described in Note 1, UMF and UMDF are discretely presented component units. These Foundations are presented in the aggregate on page 24 of these financial statements. Following is supplemental information on UMF's non-agency investments, which is not included in its entirety elsewhere in these financial statements.

This note excludes agency funds held with the Foundation that are not the University's in the amount of \$28.4 million and \$24.4 million as of June 30, 2021 and 2020. UMF's investment portfolio represents approximately 97.4% of the aggregate discretely presented component units. This note does not include investment information for UMDF given the immaterial nature of UMDF's balances and activities.

Investments

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

Custodial Credit Risk

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

Concentration of Credit Risk — As of June 30, 2021 and 2020, there is no concentration of investments from one issuer equal or greater than 5% of the portfolio. Investments issued or guaranteed by the U.S. government, as well as investments in mutual funds and other pooled investments are excluded from consideration when evaluating concentration risk.

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

Table 41 presents the unrated debt investments at fair value by credit quality of UMF's non-agency investment portfolio as of June 30, 2021:

TABLE 41 – 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	

Table 42 presents the unrated debt investments at fair value by credit quality of UMF's non-agency investment portfolio as of June 30, 2020:

TABLE 42 – Debt Investments by Credit Quality, FY2020

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

Debt securities	2020	S&P rating
U.S. Treasury securities	\$ 32,198	AAA
Total debt securities	\$ 32,198	

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 43 presents the fair value by investment maturity of the unrated debt investments of UMF’s non-agency investment portfolio as of June 30, 2021:

TABLE 43 – 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	

Table 44 presents the fair value by investment maturity of the unrated debt investments of UMF’s non-agency investment portfolio as of June 30, 2020:

TABLE 44 – Debt Investments by Maturity, FY2020

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

Debt securities	2020	Investment maturity
U.S. Treasury securities	\$ 32,198	1 to 5 years
Total debt securities	\$ 32,198	



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 in **Table 45**.

This table summarizes the fair value of UMF's non-agency investments by type as of June 30, 2021.:

TABLE 45 – Fair Value Hierarchy of Non-Agency Investments, FY2021

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

Non-agency 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 46 summarizes the fair value of UMF's non-agency investments by type as of June 30, 2020 (\$ in thousands).

TABLE 46 – Fair Value Hierarchy of Non-Agency Investments, FY2020

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

Non-agency 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	\$ -	\$ 63,877	\$ -	\$ -	\$ 63,877
Debt securities					
U.S. Treasury securities	-	32,198	-	-	32,198
Total debt securities	-	32,198	-	-	32,198
Equity securities					
Domestic equities	-	75,023	-	-	75,023
International equities	-	34,513	-	-	34,513
Total equity securities	-	109,536	-	-	109,536
Alternative investments					
Multi-strategy hedge funds					
Equity	147,388	-	-	-	147,388
Long/short	119,095	-	-	-	119,095
Fixed income	28,061	-	-	-	28,061
Absolute return	25,550	-	-	-	25,550
Real assets	7,679	-	-	-	7,679
Private equity	36,775	-	-	-	36,775
Private debt	11,347	-	-	-	11,347
Private real estate	10,578	-	-	-	10,578
Annuity & life income pooled funds	2,989	-	-	-	2,989
Total alternative investments	389,462	-	-	-	389,462
Total investments	\$ 389,462	\$ 205,611	\$ -	\$ -	\$ 595,073



Table 47 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.

TABLE 47 – 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 2 years.
Fixed income	35,282	-	Quarterly to semi-annual	*	No lock-up restrictions
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			

* 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.

**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

Table 48 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, 2020.

TABLE 48 – Alternative Non-Agency Investments, FY2020

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

Alternative investments	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Multi-strategy hedge funds					
Equity	\$ 147,388	\$ -	Daily to quarterly	1-90 days	Lock-up provisions range from none to 2 years.
Long/short	119,095	-	Quarterly to annual	45-90 days	Lock-up provisions range from none to 3 years.
Fixed income	28,061	-	Quarterly	*	Lock-up provisions range from none to 1 year.
Absolute return	25,550	-	Quarterly to annual	45-65 days	No lock-up restrictions
Real assets	7,679	-	Annual	90 days	No lock-up restrictions
Private equity and venture capital	36,775	15,464	Closed end funds	**	Not redeemable
Private debt	11,347	16,131	Closed end funds	**	Not redeemable
Private real estate	10,578	1,808	Closed end funds	**	Not redeemable
Annuity & life income pooled funds	2,989	-	Daily		No lock-up restrictions
Total	\$ 389,462	\$ 33,403			

* 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.

**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

19. Subsequent Events

On September 2, 2021 the University announced the transfer of control of Brandman University to UMass. This launched UMass Global, a nonprofit affiliate of UMass that will deliver expanded online education opportunities to adult learners. For purposes of financial reporting, beginning in FY2022, UMass Global will be presented as a blended component unit.

On September 7, 2021 the University received an unrestricted donation of \$175.0 million from Morningside Foundation established by the family of T.H. Chan. As a result, the University Medical School was renamed UMass Chan Medical School. References to the Medical School in this document reflect the new name.

For purposes of determining the effects of subsequent events on these financial statements, management has evaluated events subsequent to June 30, 2021 and through December 15, 2021, the date on which the financial statements were available to be 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	2020	2019	2018	2017	2016	2015	2014
University's proportion of the net pension liability	3.76%	3.60%	3.09%	3.28%	3.12%	3.59%	3.49%
University's proportionate share of the net pension liability	\$ 644,879	\$ 526,739	\$ 409,319	\$ 420,234	\$ 429,871	\$ 408,418	\$ 237,134
University's covered-employee payroll	\$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	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	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	2021	2020	2019	2018	2017	2016	2015
Contractually required contribution	\$ 31,495	\$ 40,617	\$ 35,843	\$ 28,292	\$ 25,618	\$ 22,386	\$ 22,386
Contributions in relation to the contractually required contribution	(31,495)	(40,617)	(35,843)	(28,292)	(25,618)	(22,386)	(22,386)
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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
Contributions as a percentage of covered-employee payroll	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	2020	2019	2018	2017
University's proportion of the net OPEB	4.01%	5.43%	4.82%	4.67%
University's proportionate share of the net OPEB	\$ 829,808	\$ 992,991	\$ 895,669	\$ 817,357
University's covered-employee payroll	\$ 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	65.60%	79.62%	72.08%	69.94%
Plan fiduciary net position as a percentage of total OPEB liability	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	2021	2020	2019	2018
Contractually required contribution	\$ 16,538	\$ 21,040	\$ 26,137	\$ 21,421
Contributions in relation to the contractually required contribution	(16,538)	(21,040)	(26,137)	(21,421)
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -
University's covered-employee payroll	\$ 1,216,914	\$ 1,264,971	\$ 1,247,098	\$ 1,242,525
Contributions as a percentage of covered-employee payroll	1.36%	1.66%	2.10%	1.72%

This page is intentionally left blank

This page is intentionally left blank





University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical • Law • Online