



Driving Post-Pandemic Economic Recovery through Innovative Teaching, Research, and Service

ANNUAL REPORT
TO THE LEGISLATURE

University of Massachusetts

January 14, 2022

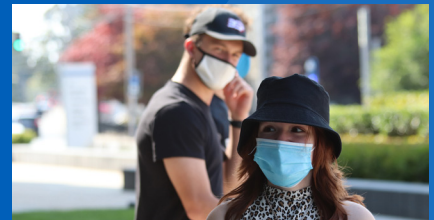


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This report has been prepared in accordance with Chapter 24 of the Acts of 2021 and should not be relied upon by any person for any other purpose, including in conjunction with making a decision to purchase or sell any bonds or securities of the Authority or the University.

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January 14, 2022

The Honorable Aaron Michlewitz, House Chair,
Committee on Ways and Means

The Honorable Michael Rodrigues, Senate
Chair, Committee on Ways and Means

The Honorable David M. Rogers, House Chair,
Joint Committee on Higher Education

The Honorable Anne Gobi, Senate Chair, Joint
Committee on Higher Education

In accordance with the General Appropriations Act for Fiscal Year 2022 (C.24 of the Acts of 2021) we are pleased to submit the attached report required by budget line item 7100-0200 for UMass to present to:

“...the chairs of the house and senate committees on ways and means and the chairs of the joint committee on higher education to review: (i) its five-year projected spending plan for academic years 2021 through 2026, including anticipated cost savings initiatives and efforts to reduce student tuition and fees; and (ii) a comprehensive report on spending over the previous academic year; provided further, that the report shall include, but not be limited to: (a) personnel costs, delineated by staff type and type of pay, including, but not limited to, base pay and bonus pay; (b) the number of full-time equivalent employees, delineated by staff type; (c) non-instructional administrative costs; (d) costs related to asset management and acquisition; (e) annual enrollment growth; (f) annual tuition and fee growth; (g) fee structure; (h) expenditures on direct student financial aid; (i) average financial aid award per financial aid recipient...”

The data contained in the attached report demonstrate the University’s continued commitment to transparency, excellence, and careful stewardship of taxpayer, student, and donor investments at our nationally recognized campuses in Amherst, Boston, Dartmouth, Lowell and Worcester.

The comprehensive nature of this report also fulfills the reporting requirements of M.G.L. C.75 §1B (h) and §15.

Consistent with the language contained in line item 7100-0200, university officials are prepared to meet with you and your staff to review the key facts and observations in this report.

We look forward to working with you to serve the citizens of the Commonwealth.



Sincerely,

Martin T. Meehan, President
University of Massachusetts

Kumble R. Subbaswamy, Chancellor
UMass Amherst

Marcelo Suárez-Orozco, Chancellor
UMass Boston

Mark Fuller, Chancellor
UMass Dartmouth

Jacqueline F. Moloney, Chancellor
UMass Lowell

Michael F. Collins, Chancellor
UMass Chan Medical School

Attachment: Report to Legislature: **“Driving Post-Pandemic Economic Recovery through Innovative Teaching, Research, and Service”**



**Driving post-pandemic economic recovery through
innovative teaching, research, and service**

Annual Report to the Legislature

January 14, 2022

Executive Summary

Introduction

We are approaching the two-year anniversary of the five-campus University of Massachusetts being forced to abruptly transition to an entirely remote working and learning environment due to the outbreak of the COVID-19 pandemic. That remote modality continued through the fall of 2020 with faculty and staff rallying to ensure 75,000 students progressed toward their degrees during that unprecedented challenge, and then transitioning students back to our campuses for the spring and fall 2021 semesters.

The result of this truly revolutionary spirit displayed by the entire UMass community was the 18,000-plus member Class of 2021 graduating on time. This was aided by federal relief funds and the generosity of UMass alumni and friends and supplemented by innovative cost-saving strategies.

Throughout 2021, the university remained resolute in its commitment to keep its students, faculty, and staff safe – holding COVID-19 positivity rates far below the state average – and continued to make major contributions to the Commonwealth’s effort to fight the disease through service, research and outreach.

As this report is filed, the University of Massachusetts remains the Commonwealth's top provider of workforce talent, the third-largest employer, and the third-largest university research enterprise. Prior to the COVID-19 pandemic, the university generated \$7.5 billion in economic activity and created more than 30,000 private sector jobs, and we expect that impact to grow post-pandemic.

Our Amherst, Boston, Dartmouth, and Lowell campuses are all nationally ranked top-tier institutions (U.S. News & World Report), and UMass Chan Medical School in Worcester is ranked among the best in the country. Despite the pandemic, the University of Massachusetts has continued to deliver top-quality, affordable, and accessible higher education that prepares students for productive and prosperous lives, while driving regional economic development and job creation.

The quality of the university is being recognized, not just in the national rankings, but also by a discerning philanthropic community. In September of 2021 alone, donors contributed nearly \$250 million to the university to support teaching and research on all five campuses. A significant portion of this private support is aimed at creating opportunity for underrepresented populations. As our Board of Trustees Chair Robert Manning said as he and his wife Donna announced a \$50 million donation to the university, “We firmly believe that UMass is the most important asset in the Commonwealth, and that the greatest thing we can do to support the Commonwealth is to support the UMass campuses and UMass students.”

The university also launched a new initiative – UMass Global – to scale up online education opportunities for hundreds of thousands of Massachusetts residents and millions nationwide who have started their college educations but have been unable to finish because life circumstances interfered. UMass Global has been embraced by Massachusetts business leaders, including the Greater Boston Chamber of Commerce, Massachusetts Business Roundtable, and Associated Industries of Massachusetts (AIM). AIM’s CEO John Regan said, “UMass Global will be a powerful talent-building engine that will drive upward economic mobility for adult learners, respond to employer needs for skilled workers, and keep Massachusetts companies competitive in a rapidly changing global economy.”

System-wide innovative management and rigorous cost containment have allowed for increased financial aid over the last several years, fulfilling the university’s commitment to affordability and funding additional investments in student support and academic quality that further enhance student success. This remains a priority for the university as evidenced by its freezing in-state tuition for Fall 2021 and Fall 2022, and its longtime commitment to keeping tuition increases below the rate of inflation.

Consistent with the university’s longstanding embrace of collaboration and transparency, UMass is pleased to take this opportunity to provide this comprehensive report on financial and programmatic trends, building on annual reports that UMass produces and provides to the Legislature and public. These reports are all available online.

We direct your attention to five key features of the university contained in this report:

1. UMass quality has been sustained and is being recognized within Massachusetts and beyond.

- Overall enrollment and Massachusetts resident enrollment have remained stable despite the pandemic and strong demographic headwinds such as the softening in the numbers of high school graduates.
- Undergraduate enrollment from 2010 to 2021 grew 9.1 percent, compared to a 15.8 percent decline at the state universities and a 33.2 percent decline at the community colleges.
- Every campus is nationally ranked:
 - The University of Massachusetts System is ranked No. 33 on the Reuters’ list of “Most Innovative Universities in the United States.”

- Times Higher Education ranks UMass as the top public university in New England.

2. UMass is keeping its high-quality education affordable and accessible, which has created upward economic mobility for its students and a talented workforce for Massachusetts.

- At the recommendation of President Marty Meehan, the Board of Trustees froze tuition for in-state undergraduates for two straight academic years (Fall 2021 and Fall 2022).
- UMass increased its commitment to university-funded financial aid from \$109 million in FY10 to a record-high \$352 million in FY21.
- 40 percent of UMass undergraduates are students of color.
- UMass graduates about 18,000 students every year.
- 83 percent of UMass undergraduate students are from Massachusetts.
- 1 out of every 5 bachelor's degrees – public and private – awarded in Massachusetts are from UMass.
- Nearly 1/3 of UMass degrees are in STEM fields.
- Graduates from every UMass campus earn a higher salary than at least 56 percent of graduates from all other Massachusetts colleges and universities.
- UMass is scaling up its online offerings through recently launched UMass Global to break down barriers of time and distance for students, especially hundreds of thousands of adult learners in Massachusetts who have started to pursue a college degree but have been unable to finish.
- Each of our campuses has high quality programming serving over 1,800 veterans.

3. UMass has a profound economic impact on Massachusetts and is the premier catalyst for attracting, developing, and retaining talent in every region of the state.

- Pre-pandemic, UMass generated a \$7.5 billion annual economic impact in Massachusetts – a 10-to-1 return on investment for the Commonwealth.
- UMass is the third-largest employer in Massachusetts, supporting a non-student workforce of nearly 18,000 people while spinning off more than 30,000 non-UMass jobs.
- With the third-largest university research enterprise in Massachusetts behind only Harvard and MIT, the university's \$687 million in annual research and development drives innovation and fosters economic development in all corners of the state.
- UMass has more than 90 core scientific facilities across its campuses that are made available to Massachusetts companies to accelerate commercial research and development.
- UMass conducts 16 percent of all research in Massachusetts.
- UMass research has resulted in 56 startup companies being launched, 445 patents being awarded, and \$345 million in invention licensing income being generated.
- There are more than 330,000 UMass graduates living and working in Massachusetts.

- A strategic, incentive-based compensation effort (comprising just 0.3 percent of the university’s payroll) has helped UMass attract and retain highly talented professionals and world-class faculty.
 - More than 80 percent of these incentives go to UMass Chan Medical School researchers, physicians, and executives who are responsible for attracting large federal and private grants, curing diseases, and strengthening the Commonwealth’s life science economy.
- 4. UMass continues to manage through the financial impacts of the COVID pandemic, including the impending loss of federal pandemic-related aid, while enhancing its financial reporting and analytical capacity and implementing new cost-savings and efficiency measures.**
- The university ended FY21 with a \$68 million surplus – a solid 2 percent operating margin – due to excellent financial management and the infusion of federal aid.
 - The university will exhaust virtually all of its federal pandemic-related aid in FY22, requiring proactive measures to prepare for FY23.
 - The total state appropriation to UMass has not kept pace with inflation.
 - The state appropriation per UMass student has declined significantly over the last decade.
 - The cost of state-imposed fringe benefit costs has increased by 36 percent since FY2011.
 - \$33.9 million in cost savings achieved through over 170 initiatives across all five campuses since the launch of the Unified Procurement Services Team (UPST) in January 2020.
 - A new line of credit authority recently provided by the Legislature aids UMass in managing seasonal cash flows. In 2021, the university completed one draw of \$25 million, receiving funds on August 5, 2021, and repaying them on September 7, 2021.
 - Confronting a \$4.0 billion deferred maintenance challenge, UMass is funding 86 percent of its capital plan to ensure students have the facilities they need and deserve to succeed.
- 5. For more than two decades, UMass has embraced a model public reporting system to keep policymakers and the public well-informed of its stewardship. These reports, which are available at www.umassp.edu, include, but are not limited to:**
- Annual operating budgets
 - Financial forecasts
 - Annual Indicators
 - Capital plans
 - Student profiles and enrollment reports
 - Research expenditure reports
 - Financial aid reports
 - Sustainability reports

Conclusion

The nation's higher education sector is currently experiencing a period of disruption caused by demographic changes (declines in new high school graduates, etc.) and technology.

Because birth rates plunged during the extraordinary recession of 2008-2010, an overall decline in the population of traditional college-aged students will accelerate in the second half of this decade, especially in New England, which has the nation's highest concentration of colleges and the lowest birth rates.

While the traditional college-aged population is shrinking, Massachusetts faces relentless demands to attract, develop, and retain the talent necessary to sustain and grow our innovation economy. Now, Massachusetts must also confront the pandemic's impacts, which have caused increased economic dislocation.

The University of Massachusetts recognizes and embraces its obligation to develop talent that is already here, especially among underserved populations, retain that talent, and attract talent from beyond our state borders. Massachusetts is home to hundreds of thousands of adults who have begun, but not finished, their college degrees. They represent an extraordinary talent pool that UMass, through its affordability, accessibility, range of educational offerings, and mission, is uniquely positioned to serve.

For decades, the UMass system has proven that it can effectively manage fiscal and demographic challenges and grow even stronger in the process. The university has taken bold and decisive steps to fulfill its critical mission of access, opportunity, and excellence, and is prepared to do even more as the Commonwealth emerges from the COVID-19 pandemic and accelerates a broad-based and inclusive recovery.

#1. About UMass



University of Massachusetts

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

About UMass

- The University of Massachusetts is a five-campus public research university system committed to advancing knowledge and transforming lives. Through its world-class educational programs, groundbreaking research enterprise, and its impactful community service and industry engagement activities, UMass harnesses the revolutionary spirit of Massachusetts to deliver an unparalleled student experience.
- The **University's mission** is to provide access to high-quality, affordable education that advances knowledge and improves the lives of the people of the Commonwealth, the nation and the world.



About UMass

University of Massachusetts Amherst

- Land Grant Founded in 1863; Flagship Campus
- Broad Research Mission With Strengths In Life Sciences, Computer Science And Engineering
- Institute for Applied Life Sciences
- UMass Innovation Institute
- Center for Hierarchical Manufacturing
- STEM Diversity Institute
- Pioneer Valley Life Sciences Institute (Springfield)

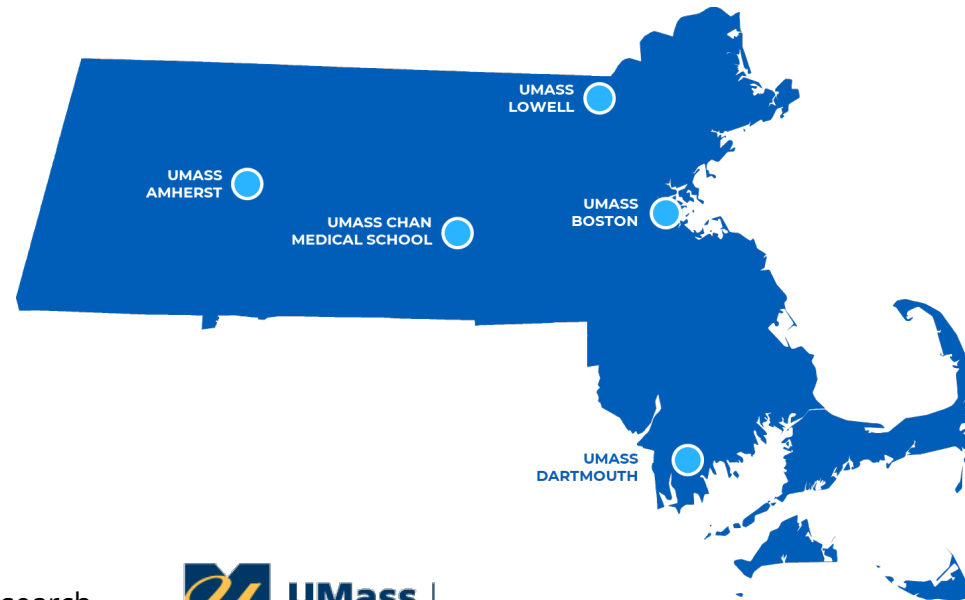


UMass Chan MEDICAL SCHOOL

- Internationally Recognized Life Sciences Research Program
- T.H. Chan School of Medicine
- Tan Chingfen Graduate School of Nursing
- Morningside Graduate School of Biomedical Sciences
- Graduate Medical Education
- UMass Center for Clinical & Translational Science
- Commonwealth Medicine
- MassBiologics (Boston & Fall River)



University of Massachusetts



UMass | Dartmouth

- National Research University With Liberal Arts, Engineering, And Marine Sciences Emphasis
- School for Marine Science and Technology (New Bedford)
- College of Visual & Performing Arts (New Bedford)
- UMass Law
- Ranked #2 in the state and #59 nationwide for social mobility



- University Closely Engaged With Regional Industries
- Renowned For Technical Emphasis Such as Engineering, Advanced Materials Sciences and Nanomanufacturing
- Mass Medical Device Development Center (M2D2)
- Rist Institute for Sustainability and Energy
- N.E. Robotics Validation & Experimentation (NERVE) Center
- Raytheon-UMass Lowell Research Institute (RURI)
- Center for Population Health
- Innovation Hub @ 110 Canal



- Most diverse public university in New England, with focus on inclusion and anti-racism
- First-Generation Forward Institution, with over 50% of students first in family to go to college
- STEM programs provide diverse pipeline of talent for Boston's economy
- Manning College of Nursing and Health Sciences is leading provider of health care professionals in MA
- On-campus Venture Development Center incubates technology and life sciences startups
- School for the Environment and Sustainable Solutions Lab focused on mitigating sea-level rise

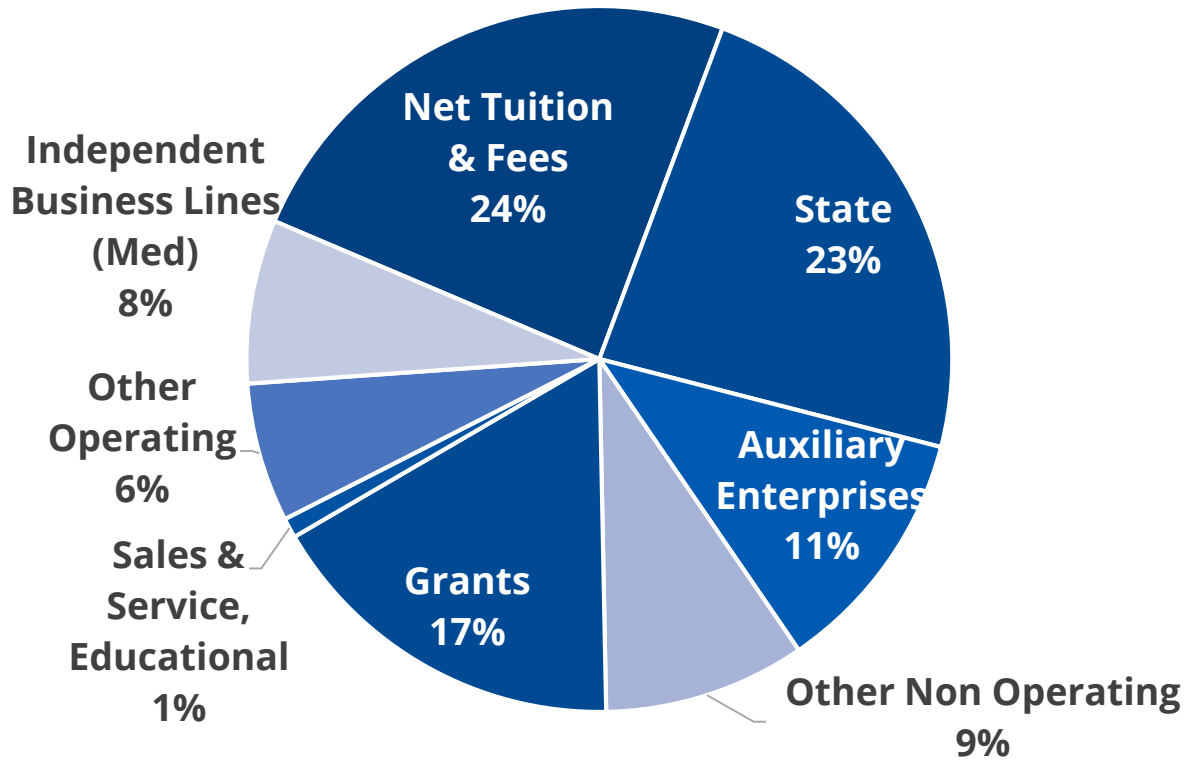


About UMass: Size, Impact, and Scope

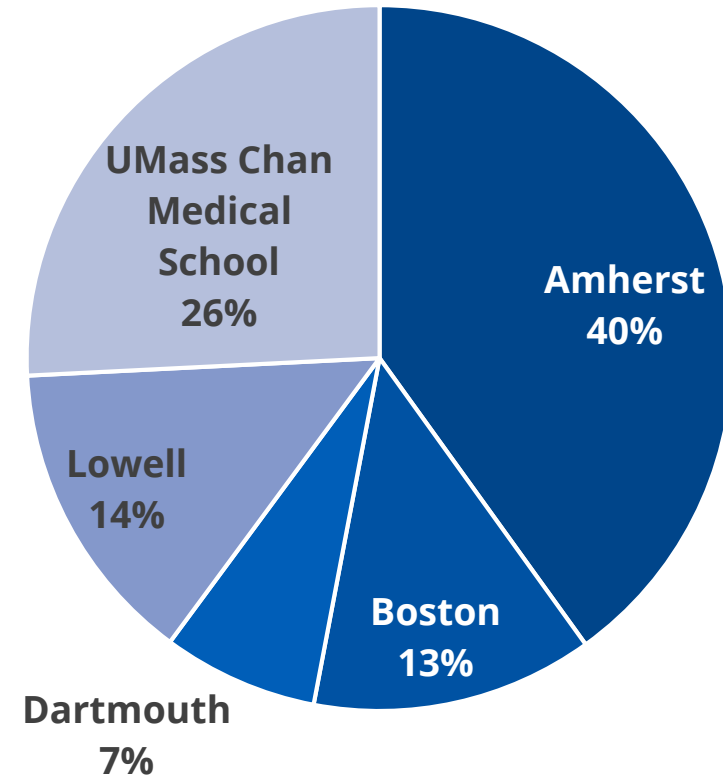
- UMass has a \$3.7 billion budget with 5 campuses geographically spanning all corners of the Commonwealth
- #1 public university in New England with all 4 undergraduate campuses ranked top-tier National Universities
- Carnegie Foundation for the Advancement of Teaching has named UMass a Community-Engaged University
- 18,000 graduates each year with over 330,000 alumni in Massachusetts, 500,000+ around the world – UMass has the largest alumni population in Massachusetts
- 33rd Most Innovative University in the U.S. according to Reuters
- UMass conducts 16 percent of all research in Massachusetts
- 727 degree programs offered
- Nearly 75,000 students by headcount, nearly 65,000 FTE students
- 24,000 employees (including students) making UMass the 3rd largest employer in Massachusetts

About UMass: Total Revenue = \$3.7 Billion

FY22 Revenue Categories

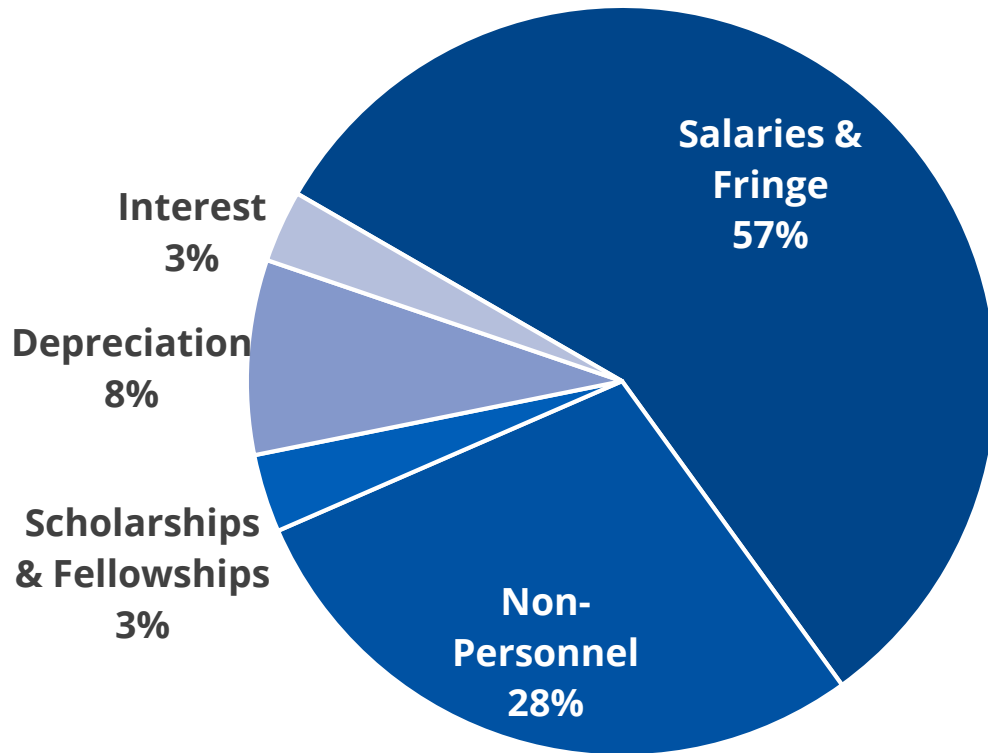


FY22 Campus Revenue

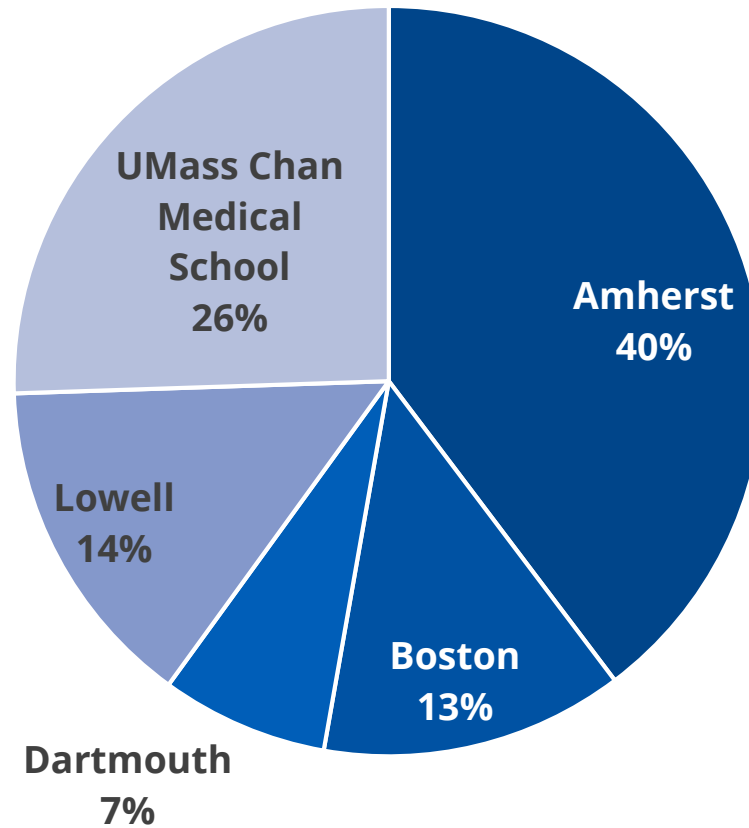


About UMass: Total Expenses = \$3.7 Billion

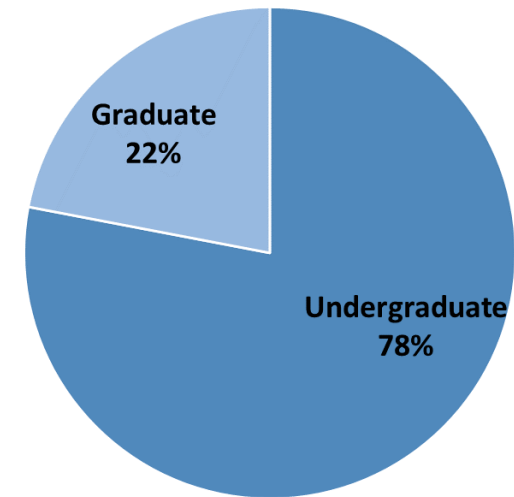
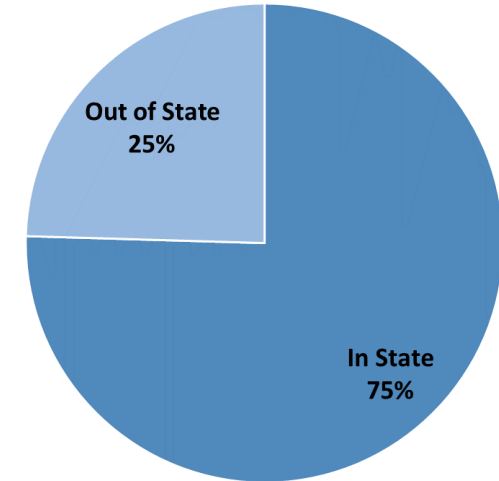
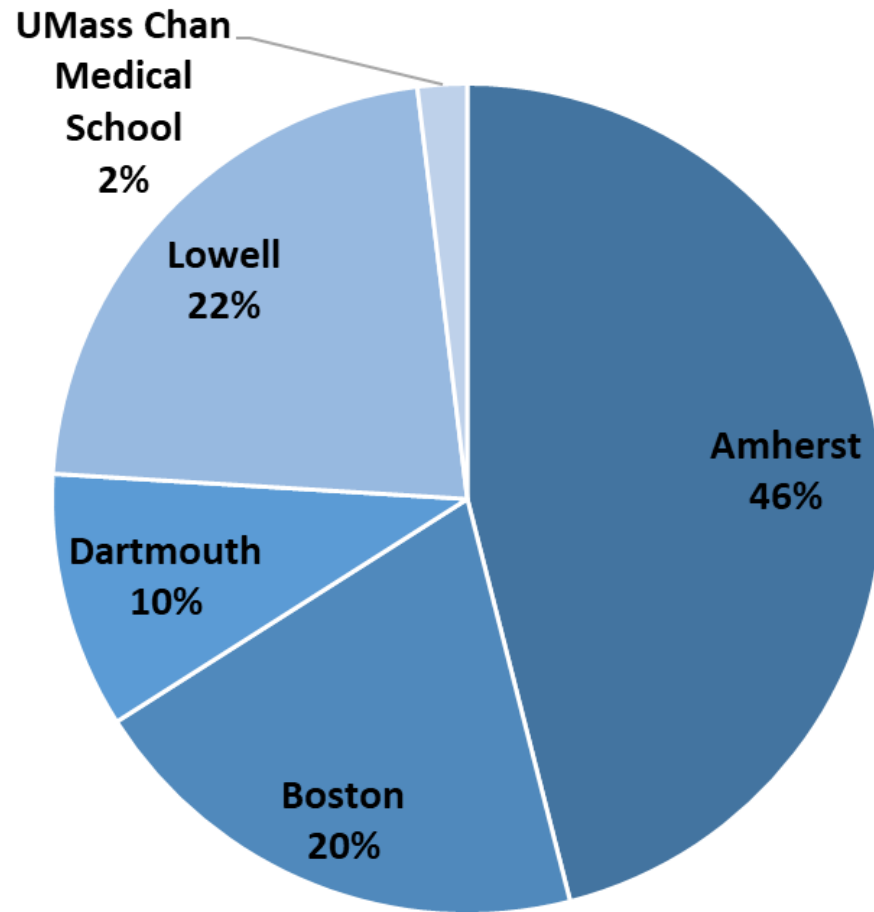
FY22 Expense Categories



FY22 Campus Expenses



About UMass: Total Enrollment = 64,768 FTEs

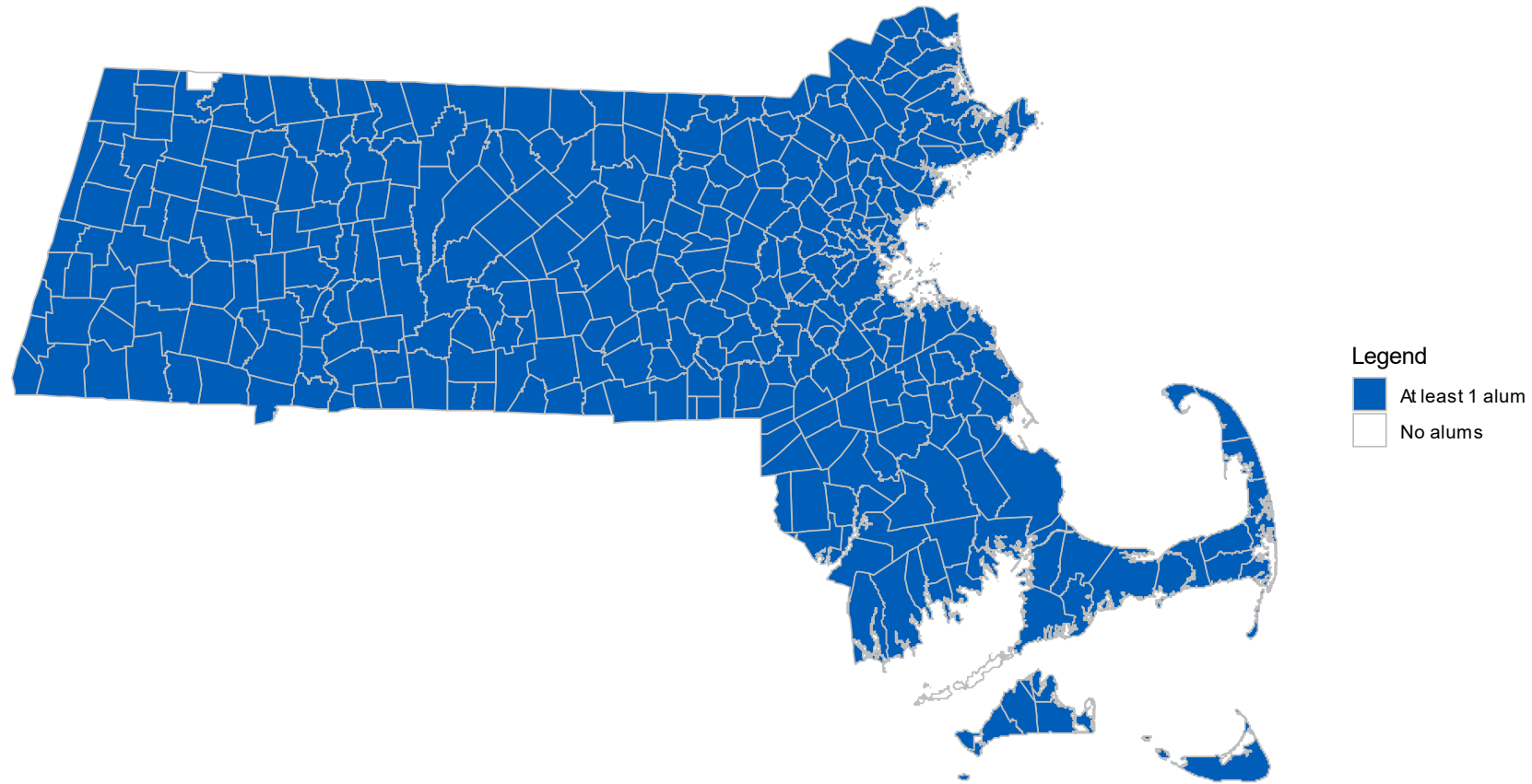


Enrollment in these graphs are based upon student full-time equivalents (FTEs).

UMass Reaches Every Corner of the Commonwealth

Nearly all 351 cities and towns in Massachusetts are home to either UMass students, employees, or alumni.

UMASS STUDENTS, EMPLOYEES AND ALUMS IN THE COMMONWEALTH: REPRESENTATION AMONG THE 351 COMMUNITIES



UMass Financial Accountability Framework

Independent & objective assurance that analyzes data, processes, policies & controls

Standard processes to provide reasonable assurance regarding achievement of objectives



Reliable, timely information that is accessible & understandable

Systematic approach to identifying, assessing & managing risks across the organization

A&F Roadmap

Goal 1: Ensure financial sustainability & mitigate risk

Financial Sustainability



Capital Strategy



Risk Management



Tax Compliance



Goal 2: Deliver efficient operations to ensure access and affordability for students

Shared Services



Operations



Goal 3: Improve our capacity to deliver financial, administrative & other service objectives to our customers

Analysis



Human Resources



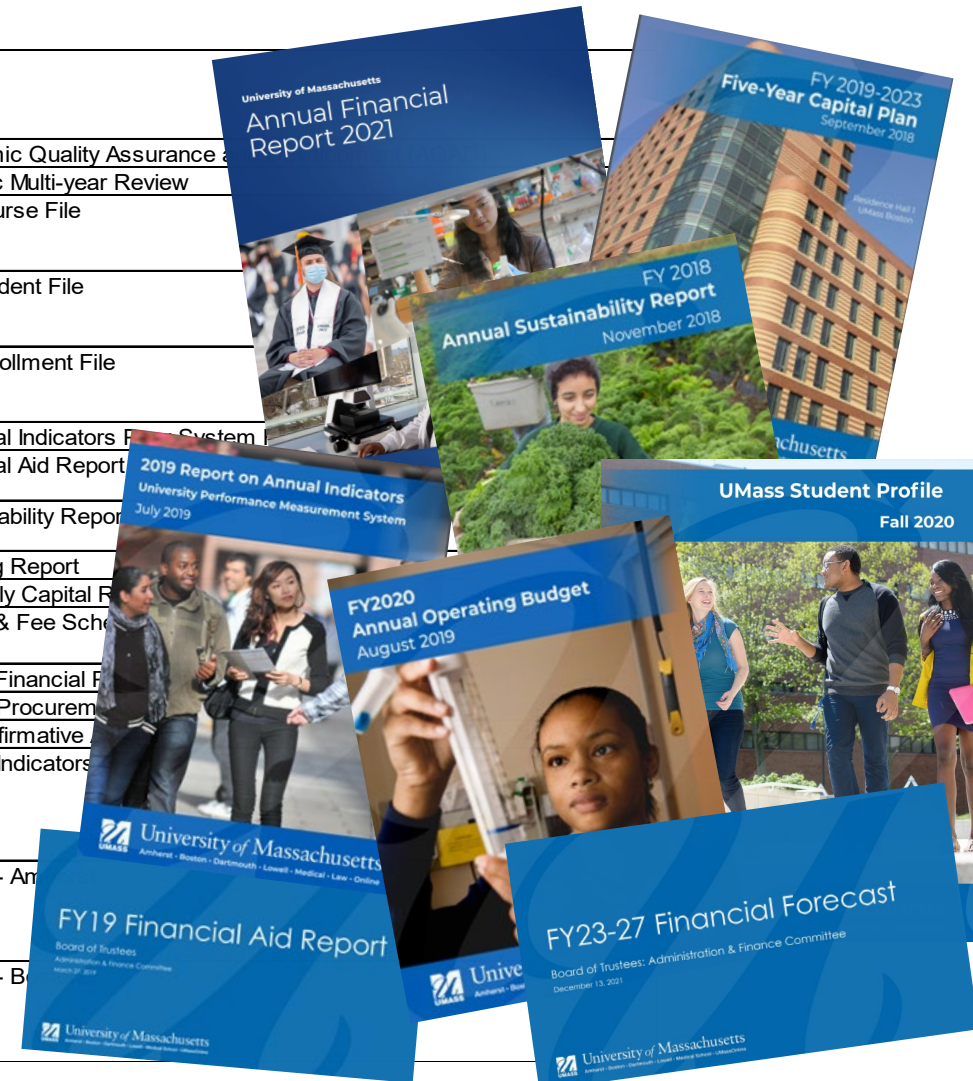
Financial Reporting



UMass: Transparent and Accountable

- UMass publishes over 60 accountability reports annually
- Reports range from annual budgets and financial reports to student profiles and crime statistics (Clery Act) reports
- A full list of accountability reports can be found in **Appendix E: UMass Accountability Matrix**
- **Not included:**
 - Additional reports generated by the campuses
 - Federal and State reporting requirements needed to show compliance

Tab	Report
A	Academic Quality Assurance
B	Periodic Multi-year Review
C	Fall Course File
D	Fall Student File
E	Fall Enrollment File
F	Financial Indicators Performance System
G	Financial Aid Report
H	Sustainability Report
I	Housing Report
J	Quarterly Capital Plan
K	Tuition & Fee Schedule
L	5-Year Financial Plan
M	Annual Procurement
N	EEO Affirmative Action
O	Annual Indicators
P	IPEDS - Annual
Q	IPEDS - Biennial



#2. UMass' Impact on the Commonwealth



University of Massachusetts

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

UMass Driving the State Economy

UMass is a vital economic driver in all regions of the Commonwealth, generating billions in economic impact each year.

#3

Employer in
Massachusetts

49,315

Massachusetts jobs
supported every year

10 to 1

Return on state
investment

According to the most recent
Economic Contribution Analysis
in 2018

\$7.5 billion

in annual economic
activity

17,622

Employees
Non-student*

Educating the Massachusetts Workforce

UMass is the single largest contributor to the Massachusetts workforce. UMass fuels the economy, not just by educating students, but in ensuring that these graduates have the skills today's high-profile, in-demand jobs require.

18,000

New graduates
every year

331,000

Alumni live in
Massachusetts

83%

of undergraduates
are from
Massachusetts

Educating the Massachusetts Workforce

UMass educates nearly three times as many Massachusetts residents as the top eight Massachusetts private universities combined, graduating over 18,000 students each year.

More than

1 in 5

of all Bachelor's Degrees awarded in Massachusetts are UMass degrees

Over 2.5X

as many students from Massachusetts as the top eight private universities combined

32%

of degrees are awarded in STEM fields



Attracting and Developing Talent

While UMass is producing more graduates than ever before, it's the diversity of these graduates that helps reflect the state's emerging and future needs.

40%

of undergraduates
are students of
color

164

Countries of origin
(excluding U.S.)

All 50

States represented

UMass Key Industry Partnerships

The university's commitment to supporting the Massachusetts economy means that its academic programs and research are designed with the needs of Massachusetts industry and companies in mind.

UMass Innovation Institute (Amherst & Lowell)

- The Institute aims to ensure that the discoveries made at UMass move quickly from great ideas into reality.
- Faculty and students have the opportunity to interact with industry and get assistance with grants and contracts, regulatory compliance, and intellectual property.

UMass Core Research

- Throughout the state, UMass offers fee-for-service access to its Research Core Facilities for academic, government and industry users. The network of facilities offers access to cutting-edge instrumentation, methodologies and the expertise of full-time professors, and provides UMass students the opportunity to conduct hands-on research.
- Over 900 Innovation Vouchers worth more than \$5M in vouchers have been awarded over the last 3 years to more than 300 SMEs in 87 cities and towns across Massachusetts.
- Innovation Voucher program not funded in the State's FY22 budget. Continuing the program will be challenging without continued State support.

Innovative Testing and Development

- The New England Robotics Validation and Experimentation (NERVE) Center at the University of Massachusetts Lowell is just one example of how UMass encourages students, faculty and our external partners to build world-changing technologies. The NERVE Center helps develop test methods to evaluate grasping, collaboration, and assembly capabilities used for industrial automation tasks, and to evaluate mobility, exertion, and learning rate for assistive technologies.

UMass Key Industry Partnerships Continued

UMass Chan Medical School's BRIDGE

- UMass Chan's BRIDGE Fund invests in the next generation of impactful innovations at the Medical School.
- The fund provides infusion of up to \$1 million annually to UMass Chan Medical School faculty and scientists whose research shows particular promise for commercialization and translation to a clinical application.
- In FY19, a \$265 million research base contributed to \$146 million in licensing revenue.
- BRIDGE SPAN provides faculty the opportunity to establish a relationship with industry sponsors – providing their labs with funding and materials for specific research projects.

Venture Development Center

- UMass Boston hosts the Venture development Center (VDC), a thriving community of promising entrepreneurs in residence from around the world launching innovative technology and life science companies.

Plastics Biodegradation Laboratory

- In 2021, UMass Dartmouth created a new Plastics Biodegradation Laboratory through a unique private-public partnership with PrimaLoft, which included a state grant from the Collaborative Research and Development Matching Grant program, an effort managed by the Massachusetts Technology Collaborative.
- The new lab will study how microplastics break down in the world's oceans, as well as in landfill and wastewater environments, and will be used by industry partners like PrimaLoft to test the biodegradability of materials they use in their products.

UMass Key Industry Partnerships Continued

Advanced Manufacturing

- UMass is a leader in more than 8 of the 14 national manufacturing innovation institutes.
- UMass Lowell hosts the only center that integrates three of these Manufacturing USA institutes under one roof (Robotics, Smart Textiles, Flexible Electronics), and is a key member of the state's Advanced Manufacturing Collaborative.

Small Business Development

- With offices near every UMass campus, the Massachusetts Small Business Development Center (MSBDC) Network provides free, confidential, one-to-one management and technical assistance, counseling and low-cost training programs to prospective and existing small businesses throughout the state.

UMass Lowell Applied Research Corporation (501c3)

- The UMLARC is a non-profit entity that will enable the university to participate in a much larger range of contracts that drive discoveries further along the technology readiness path. It recently opened the NEXUS Center to support the state's defense industry and supply chain.

UMass Serving the Community

UMass students contribute more than 700,000 hours of community service every year, preparing to be engaged and thoughtful citizens. Below are some examples of service projects:

UMass Amherst: Students provide free tax preparation services to low- to moderate-income individuals, people with disabilities, the elderly and those with limited English-speaking abilities.

UMass Boston: The Beacon Voyages for Service program focuses on developing active citizens through investigating root causes and participating in direct service connected to social justice in various parts of the country during school breaks. At the Spring Day of Service, an annual tradition, students and alumni participate in a range of activities from beautification projects with local community centers to outdoor clean-up and gardening projects.

UMass Dartmouth: During the 2020-21 academic year, UMassD students, faculty, and staff performed more than 189,000 hours of service valued at \$6.64M. UMassD gives every 7th and 8th grader in Fall River and New Bedford college tours.

UMass Lowell: Devotes over 200,000 hours to community service, each year, through projects including volunteering with health agencies and hospitals COVID-19 testing and vaccine administration, making 3D face shields and ear savers for local hospitals, virtual tutoring and programming at local nonprofits for local youth, and providing free consulting and marketing plans to businesses. UML & Middlesex Community College are one of 16 pairs of schools selected to participate in the Equity Transfer Initiative led by the American Association of Community Colleges.

UMass Chan Medical School: Through the Worcester Free Care collaborative, UMass Chan students play a critical role in providing free medical screenings and services for individuals and families who do not have, or cannot afford, medical insurance. Included in this work was a recent partnership with Veterans, Inc. to provide targeted outreach to local veterans, providing information on available services and conducting health screenings.

UMass Law: Recently, the Class of 2017 completed more than 7,000 hours of pro bono and other law-related service to the community, and volunteered in 37 different offices, including private law firms, government agencies, and non-profit organizations.

UMass Partnering with Communities to Respond to COVID-19



UMass Is a Critical Partner in Responding to COVID

▪ **Field Hospital Operations**

- UMass Chan was the first medical school in the U.S. to graduate its Class of 2020 early so graduates could work on health care's front lines during the pandemic's initial surge.
- UMass Dartmouth partnered with Southcoast Health, providing the campus athletic center to serve as a field hospital in Spring 2020
- UMass Lowell partnered with Lowell General Hospital, providing the campus recreation center to serve as a field hospital during Spring 2020 and again in Winter 2020-2021

▪ **Community Testing**

- UMass Amherst has created a CLIA-approved clinical testing center (ICTC) that continues to provide no-cost asymptomatic COVID-19 surveillance testing for the public in Western MA. ICTC has also become the MA site for a DPH-sponsored COVID-19 'Incidence and Prevalence' COVID-19 antibody testing and virus testing program.

▪ **Vaccination Clinics**

- UMass Amherst partnered with the Massachusetts Department of Health to operate a public vaccination clinic; this clinic began in mid-January 2021 and continues to operate, administering over 50,000 vaccines.
- UMass Boston partnered with Boston Public Health Commission to operate two one-day vaccination clinics to administer first and second doses to area higher education healthcare workers
- UMass Dartmouth partnered with the Dartmouth Board of Health to support operation of a vaccination clinic for area first responders in January 2021
- UMass Lowell volunteer corps, including about 130 nursing students, health care professionals, and other members of the UMass Lowell community, are assisting Lowell General Hospital in inoculating area residents against COVID-19

UMass Chan Medical School's COVID Response

- UMass Chan has been at the forefront of COVID-19 clinical research trials, including:
 - Trial site for Pfizer and Moderna vaccines in adults, adolescents and children
 - National leader of the NIH's RADx initiative to develop rapid, reliable at home tests
 - Community engaged research to support vaccine acceptance
- In January 2021 UMass Chan Medical School launched a Vaccine Corps to support COVID-19 vaccination statewide. So far, the impact of the UMass Chan Vaccine Corps includes:
 - Administering 93,000+ COVID vaccinations to the public and vulnerable populations
 - Recruiting 7,000+ volunteers
 - 28,000 hours of community service

UMass Amherst Responding to COVID

UMass Amherst is the only state-sponsored Stop the Spread COVID-19 testing center in Hampshire County

- Conducting up to 30K PCR tests/week; +550K to date
- State Grant for Community testing; 80K tests performed
- Performing COVID-19 antibody testing, COVID-19 viral testing, and COVID-19 variant testing
- Perform overflow testing for Baystate Medical
- Utilizing student EMTs, public health students and others to assist in operation and contact tracing



UMass ICTC is approved to perform both 'observed' as well as 'at-home' COVID-19 testing. Test kits can be obtained from vending machines and returned to 'drop boxes' on campus and in townships.

UMass Amherst Responding to COVID

IALS Clinical Testing Center (ICTC) on-campus COVID analysis lab

- CLIA certified lab opened in fall 2020
- Operating out of Institute for Applied Life Sciences (IALS)
- Increased MA capacity to perform tests in addition to Broad; +550K tests done
- Ability to provide CLIA certified viral testing (PCR), as well as antibody testing by 'at home' collection of blood spots, for state and region post-pandemic
- Surveillance testing of emerging COVID-19 variants

Regional Vaccination Clinic

- Designated by state as a regional vaccination clinic in January 2021
- Staffed by nursing students along with University Health Services staff
- Over 50K vaccinations to date

Wastewater Testing Capacity

- Implemented a COVID-19 wastewater testing capacity, used for 'adaptive testing'
- Can rapidly identify outbreaks in campus dorms, research buildings, or towns

UMass Boston Responding to COVID

- UMass Boston is partnering with the UMass Chan Medical School on the Vaccination Corps initiative
- Last spring/summer, UMB pursued a three-pronged strategy on vaccinations:
 - **UMass Boston vaccination site on campus**
 - **Educating our community.** This includes moving the needle in communities of color with clarifying any and all concerns in said populations on vaccine hesitation matters
 - UMB centers and institutes have been engaged in community outreach/research, including studying vaccine hesitancy in the latinx community
 - Campus stakeholders have begun to develop messaging and a communication strategy to help educate our stakeholders and surrounding community stakeholders
 - **Providing volunteers to the vaccination effort**
- UMB fielded a stream of requests from local hospitals and community health centers for volunteers. We tried to fulfill these requests with qualified nursing students.

UMass Dartmouth Responding to COVID

- In the spring of 2020, in collaboration with Southcoast Health, UMassD operated a 100 bed COVID field hospital on campus. Thankfully, no patients were admitted.
- Working alongside the Dartmouth Board of Health, UMassD hosted a vaccination clinic for local first responders in the on-campus testing center, aiding them in the continuance of their important work protecting the health and safety of our communities
- Clinical Nursing Students and Clinical Nursing Faculty are staffing clinics at various locations across the region
- Associate Biology Professor Erin Bromage teaches courses in Immunology and Infectious disease and has been a regular contributor to CNN's coverage. Dr. Bromage is also an advisor to many nonprofit organizations, local governments, schools across New England, and movie and television sets as a health and safety advisor

UMass Lowell Responding to COVID

- About 130 UMass Lowell students, faculty, staff and alumni have come together in a volunteer corps to assist Lowell General Hospital in inoculating area residents against COVID-19. In addition to nursing students and health care professionals administering vaccines, members of the UMass Lowell community also assist with registration, ushering and phone calls
- One of only 3 academic institutions serving on the Massachusetts Manufacturing Emergency Response Team that helped about 40 companies pivot their operations to make more than 15 million pieces of PPE including N95 masks, gowns, face shields, disinfectants, ventilator parts, and test swabs
- UMass Lowell, along with Advanced Functional Fabrics of America (AFFOA), MIT, and MIT Lincoln Labs, tested thousands of KN95 masks that were received by MEMA, to determine the quality of each lot prior to distribution to front line health care workers and first responders
- Massachusetts Medical Device Development Center (M2D2), a collaboration between UMass Lowell and UMass Chan Medical School, has been given the responsibility by NIH to manage a \$120M program (RADx) to help identify and support small companies with promising COVID-19 diagnostics, including setting up early validation and clinical study support

UMass Serving Veterans

UMass is committed to supporting its student veterans and veterans in the community.



New VA Community Based Outpatient Clinic at the UMass Chan Medical School opened in November 2021, providing top-quality services to veterans throughout the region.

Over 1,800

Veterans are enrolled at UMass

UMass is consistently ranked as a top university for veterans^{1,2}.

UMass has high quality programs for veterans, particularly online.

Best online programs for veterans³:

3

Top 25 ranked Online Graduate Business/ MBA Programs

#2

Ranked Online Master's in Criminal Justice (Lowell)

2

Top 25 ranked Online Bachelor's Programs

#7

Ranked Online Master's in Computer Information Technology (Lowell)

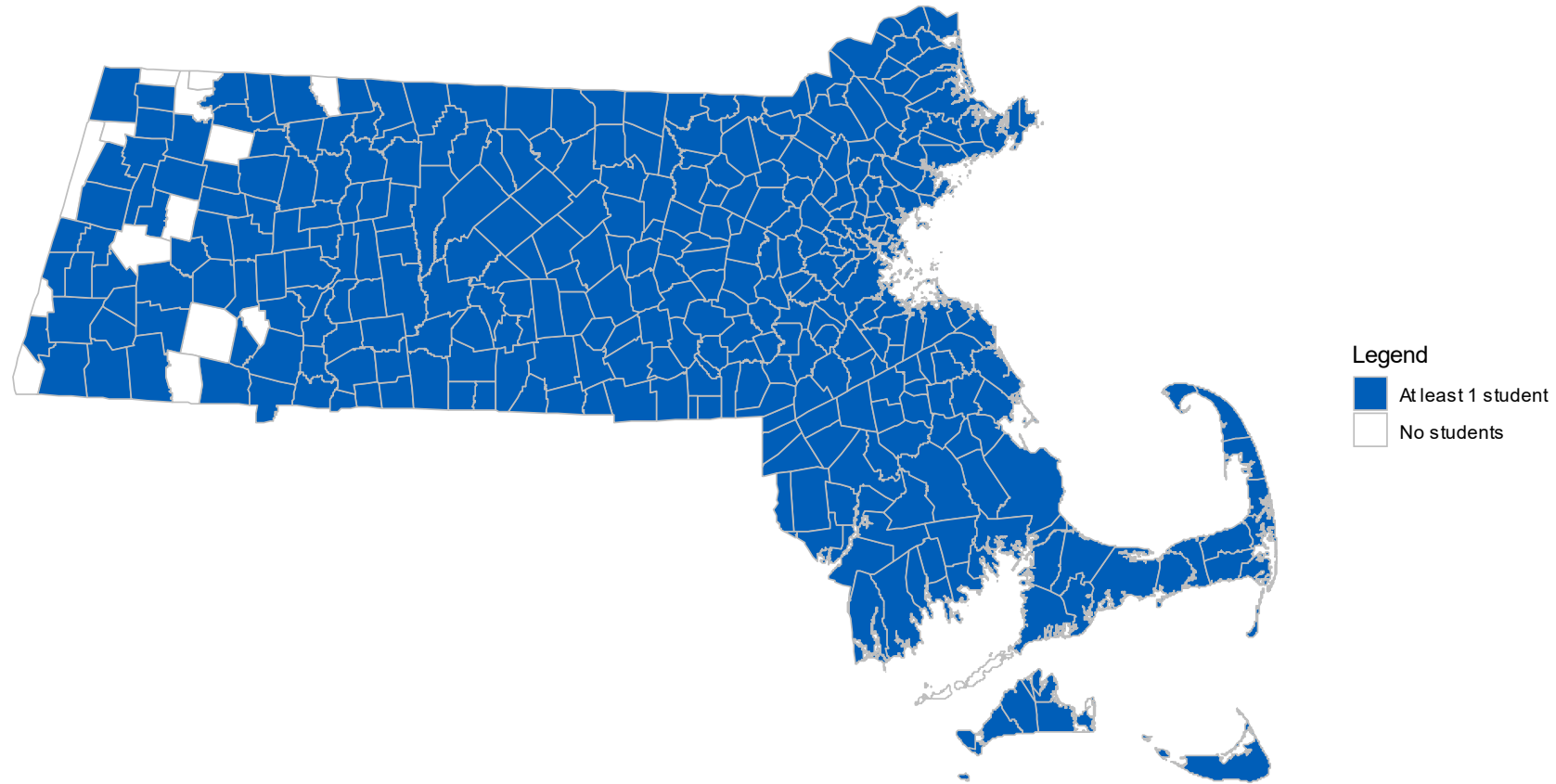
¹ Best Colleges for Veterans by U.S. News and World Report (Amherst, Lowell)

² Military Friendly Schools by MilitaryFriendly.com (Boston, Dartmouth)

³ Best Online Programs for Veterans by U.S. News and World Report

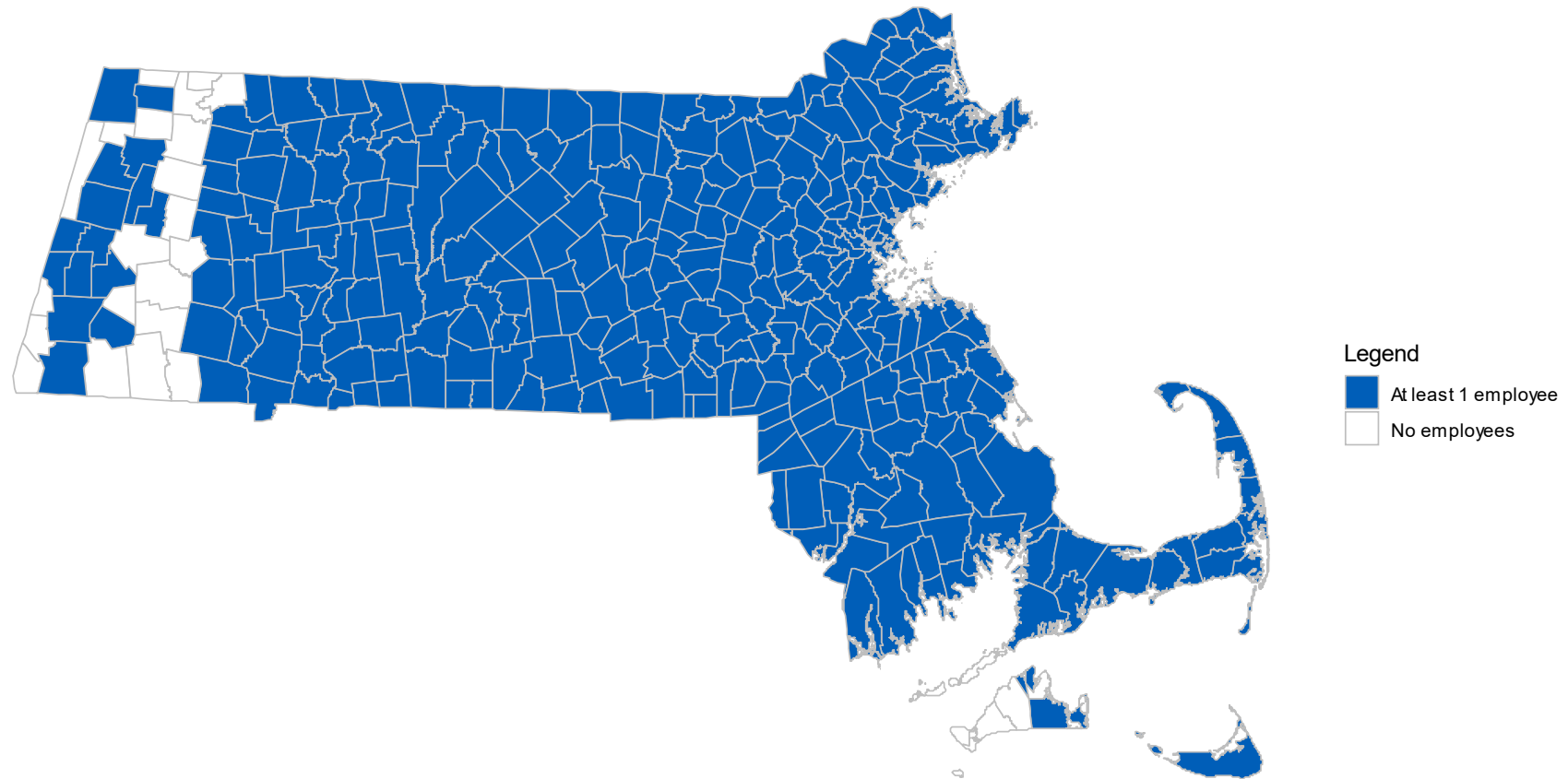
UMass students come from over 335 communities of the Commonwealth

UMASS STUDENTS IN THE COMMONWEALTH: REPRESENTATION AMONG THE 351 COMMUNITIES



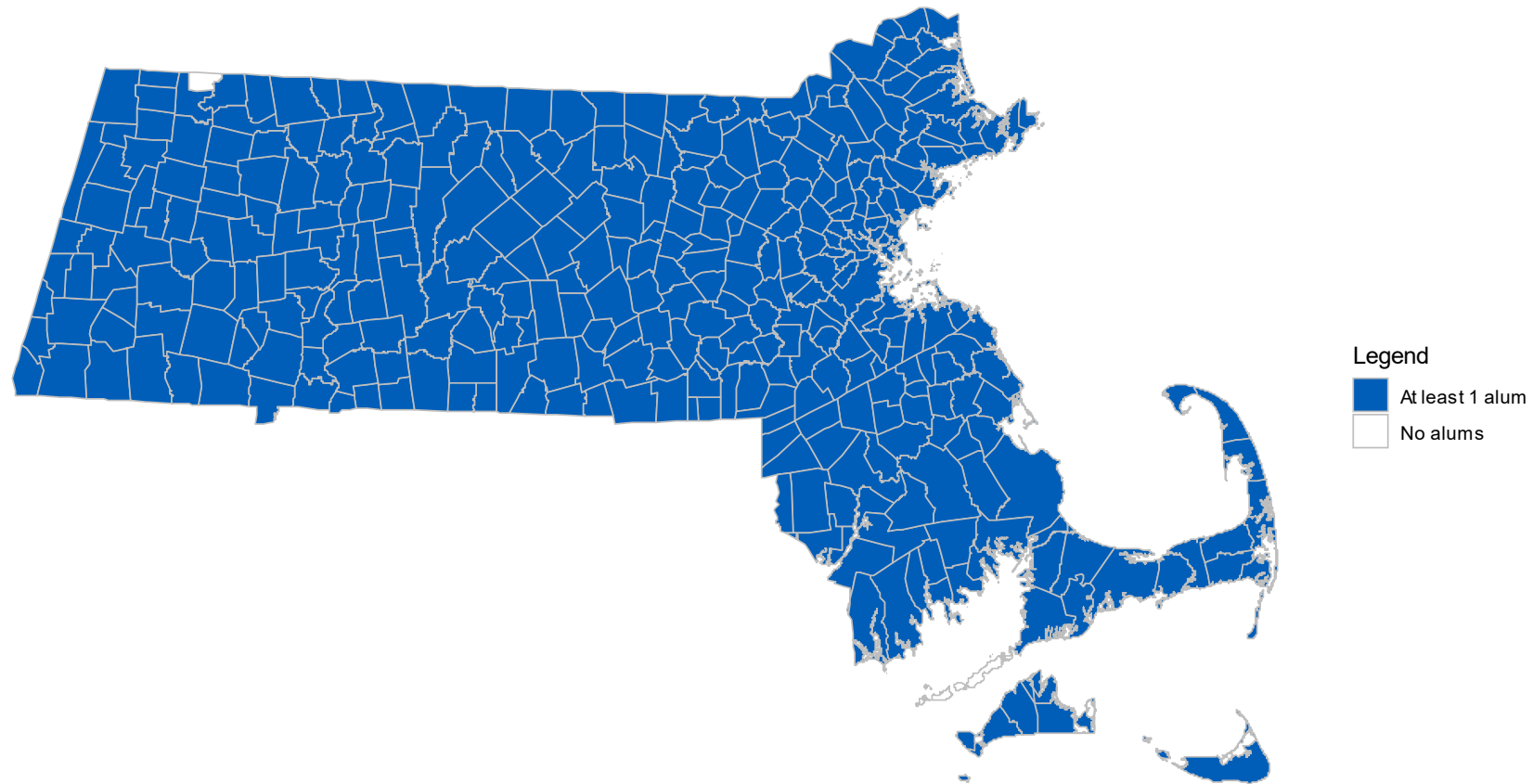
UMass employees come from over 325 communities of the Commonwealth

UMASS EMPLOYEES IN THE COMMONWEALTH: REPRESENTATION AMONG THE 351 COMMUNITIES



UMass alumni live in nearly all 351 communities of the Commonwealth

UMASS ALUMNI IN THE COMMONWEALTH: REPRESENTATION AMONG THE 351 COMMUNITIES



Life-Changing Research

UMass conducts \$687 million in research in areas critical to the Massachusetts economy, like the life sciences, engineering, computer and data science, education, and climate science.

3rd-largest

Research portfolio in Massachusetts, behind only Harvard and MIT

\$687 million

in annual research & development in FY20

UMass conducts

16%

of all research in Massachusetts

More than 90

core research facilities across the state

More than 50%

Federally funded research

The Economic Impact of Discovery

Through its distinguished research programs, UMass is anchoring significant economic development in all corners of the state. Much of the research at UMass has the potential to be commercialized, often leading to spin-off companies and new products.

56

Start-up Companies
Launched

2016-2021

Research & Discovery
by the numbers

\$345 million

in licensing income
generated

445

Patents awarded

1,152

Invention
disclosures filed

166

Licenses completed

#3. Admissions & Enrollment



University of Massachusetts

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

Admissions & Enrollment

What is it?

Tracking of students beginning with the number of applications, admissions and enrollments for a given academic year

When do we do it?

Beginning in the spring for the coming fall class; also evaluated for the winter, spring and summer semesters; presented to the Board of Trustees as part of the FY budget

What is included?

- ✓ Data at the University and campus levels
- ✓ Number of applications received
- ✓ Number of students admitted based on student qualifications
- ✓ Number of students enrolled (i.e. have been accepted and are attending courses); also referred to as the “yield”

Why do we do it?

- ✓ To evaluate the “demand” for our campuses and that trend over time
- ✓ To monitor the number of students who are expected to come to campus
- ✓ To ensure budget and forecast projections are being met and / or if strategies to fill available slots must be enhanced

Key Links:

- ✓ [Annual Student Profile](#)



UMass Undergraduate Admissions

The UMass System continues to grow in applications and admits of its first-year undergraduate admissions funnel, but enrollment has decreased.

SYSTEM UNDERGRADUATE ADMISSIONS: FIRST-YEAR STUDENTS

FUNNEL	FALL 2021	Δ VS FALL 2020	Δ VS FALL 2016
APPLICANTS	79.2K	▲ 4.4%	▲ 13.1%
ADMITS	58.6K	▲ 8.9%	▲ 32.9%
ENROLLS	10.2K	▼ 3.3%	▲ 9.5%

UMass Transfer Admissions

As UMass competes for a smaller group of students, including rapidly declining community college populations – a historical source of transfer students, transfer admissions have fallen.

SYSTEM UNDERGRADUATE ADMISSIONS: TRANSFER STUDENTS

FUNNEL	FALL 2021	Δ VS FALL 2020	Δ VS FALL 2016
APPLICANTS	8.7K	▼ 1.9%	▼ 12.4%
ADMITS	6.7K	▼ 2.2%	▼ 13.9%
ENROLLS	3.8K	▼ 4.0%	▼ 20.7%

UMass Undergraduate Enrollment

Across the System, undergraduate enrollments show slight decreases both at the shorter and longer terms.

UNDERGRADUATE ENROLLMENTS			
METRIC	FALL 2021	Δ VS FALL 2020	Δ VS FALL 2016
HEADCOUNT	55.2K	▼ 3.0%	▼ 3.0%
FTE	50.7K	▼ 3.6%	▼ 1.0%

Note: FTE figures include continuing education and online-only students that are broken out in future presentations of enrollment.

UMass Graduate Enrollment

Across the System, graduate enrollments show increases both at the shorter and longer terms.

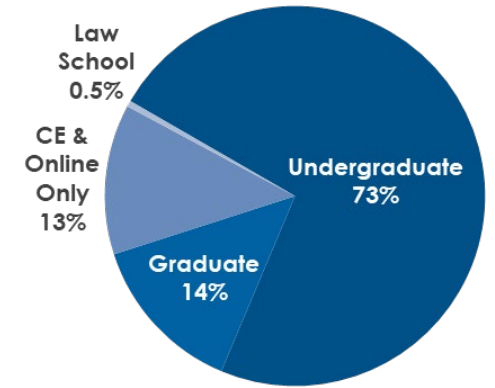
GRADUATE ENROLLMENTS

METRIC	FALL 2021	Δ VS FALL 2020	Δ VS FALL 2016
HEADCOUNT	19.3K	▲ 4.6%	▲ 9.6%
FTE	14.0K	▲ 4.3%	▲ 9.7%

Note: FTE figures include continuing education, online-only, and law students that are broken out in future presentations of enrollment.

Enrollment

AAGR	Total	Undergraduate	Graduate
FY17-20:	1.0	1.3	0.4
FY21-22:	-0.9	-2.8	-0.7
FY23-27:	1.3	1.2	1.7



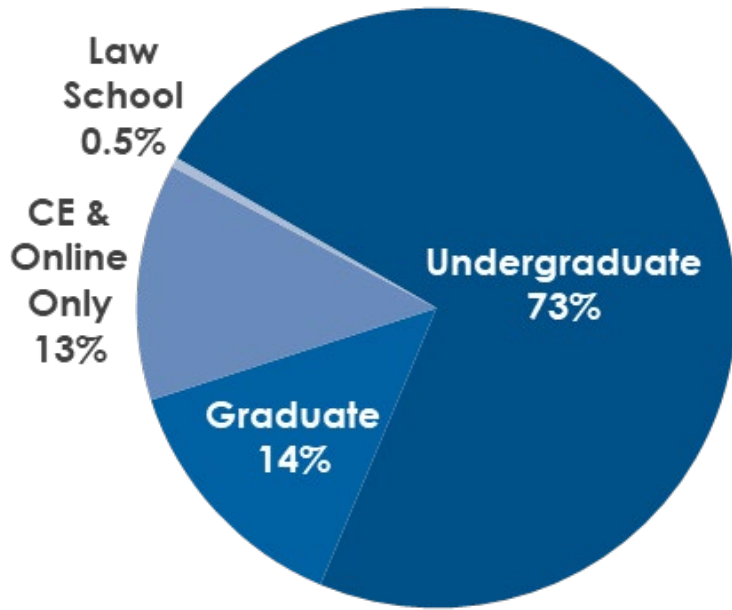
Students FTEs	Actual		Forecast					Average Growth		
	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY17-20	FY21-22	FY23-27
Amherst	29,693	29,802	30,164	30,173	30,699	31,361	31,700			
% Change	-0.4%	0.4%	1.2%	0.0%	1.7%	2.2%	1.1%	1.9%	-0.0%	1.2%
Boston	13,571	12,943	13,308	13,434	13,518	13,598	13,647			
% Change	2.5%	-4.6%	2.8%	0.9%	0.6%	0.6%	0.4%	0.1%	-1.1%	1.1%
Dartmouth	6,709	6,459	6,408	6,465	6,631	6,894	7,070			
% Change	-3.8%	-3.7%	-0.8%	0.9%	2.6%	4.0%	2.5%	-2.6%	-3.7%	1.8%
Lowell	14,855	14,318	14,483	14,704	14,928	15,102	15,279			
% Change	0.4%	-3.6%	1.2%	1.5%	1.5%	1.2%	1.2%	2.1%	-1.6%	1.3%
Chan Medical School	1,242	1,246	1,248	1,279	1,327	1,384	1,434			
% Change	3.9%	0.3%	0.1%	2.5%	3.8%	4.3%	3.6%	3.2%	2.1%	2.9%
University	66,070	64,768	65,611	66,055	67,103	68,340	69,129			
% Change	0.1%	-2.0%	1.3%	0.7%	1.6%	1.8%	1.2%	1.0%	-0.9%	1.3%

Enrollment Trend

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Undergraduate	47,720	48,298	49,356	50,014	49,262	48,796	47,278	47,715	47,849	48,587	49,523	50,059
% Change	0.4%	1.2%	2.2%	1.3%	-1.5%	-1.1%	-4.2%	0.9%	0.3%	1.5%	1.9%	1.1%
Graduate	8,962	9,076	9,036	9,000	8,973	8,988	8,878	9,092	9,233	9,376	9,525	9,639
% Change	1.1%	1.3%	-0.4%	-0.4%	-0.3%	-0.5%	-1.7%	2.4%	1.6%	1.5%	1.6%	1.2%
Continuing Ed	2,371	2,160	1,808	1,286	1,170	979	774	779	784	788	792	794
Online Only	4,768	4,812	4,949	5,460	6,337	6,518	7,511	7,700	7,864	8,027	8,174	8,313
% Change	5.3%	-2.3%	-3.1%	-0.2%	11.3%	11.0%	22.6%	2.3%	2.0%	1.9%	1.7%	1.6%
Law School	157	184	199	246	328	327	326	325	325	325	325	325
% Change	-7.6%	16.7%	8.4%	23.6%	33.2%	64.3%	63.8%	-0.3%	0.0%	0.0%	0.0%	0.0%
University	63,978	64,530	65,348	66,005	66,070	65,609	64,768	65,611	66,055	67,103	68,340	69,129
% Change	1.0%	0.9%	1.3%	1.0%	0.1%	0.4%	-0.9%	1.3%	0.7%	1.6%	1.8%	1.2%

Source: Actuals from student profile.

Enrollment by Career



Students (FTEs)	FY2022
Undergraduate	47,278
Graduate	8,878
Continuing Ed	774
Online Only	7,511
Law School	326
University	64,768

University

AAGR	FY17-20	FY21-22	FY23-27
Undergraduate	1.3%	-2.8%	1.2%
Graduate	0.4%	-0.7%	1.7%
CE & Online	-0.1%	10.8%	1.9%
Law School	10.3%	16.4%	-0.1%
Total	1.0%	-0.9%	1.3%

Amherst	FY22 FTEs	AAGR		
		FY17-20	FY21-22	FY23-27
Undergraduate	23,291	1.7%	-0.8%	1.2%
Graduate	3,734	2.3%	0.0%	0.8%
CE & Online	2,777	3.2%	7.8%	1.9%
Total	29,802	1.9%	0.0%	1.2%

Boston	FY22 FTEs	AAGR		
		FY17-20	FY21-22	FY23-27
Undergraduate	9,798	1.6%	-2.3%	1.0%
Graduate	1,554	-1.4%	-6.1%	1.6%
CE & Online	1,591	-7.5%	15.8%	1.3%
Total	12,943	0.1%	-1.1%	1.1%

Dartmouth	FY22 FTEs	AAGR		
		FY17-20	FY21-22	FY23-27
Undergraduate	4,635	-3.8%	-6.1%	1.0%
Graduate	566	-8.0%	2.9%	3.9%
CE & Online	932	7.7%	1.2%	5.0%
Law School	326	10.3%	16.4%	-0.1%
Total	6,459	-2.6%	-3.7%	1.8%

Lowell	FY22 FTEs	AAGR		
		FY17-20	FY21-22	FY23-27
Undergraduate	9,554	3.1%	-5.9%	1.2%
Graduate	1,779	0.1%	0.5%	2.0%
CE & Online	2,985	-0.8%	15.5%	1.2%
Total	14,318	2.1%	-1.6%	1.3%

Undergraduate

AAGR
 FY17-20: 1.3
 FY21-22: -2.8
 FY23-27: 1.2

Students <i>FTEs</i>	Actual		Forecast					Average Growth		
	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY17-20	FY21-22	FY23-27
Amherst	23,430	23,291	23,557	23,485	23,933	24,517	24,776			
% Change	-1.1%	-0.6%	1.1%	-0.3%	1.9%	2.4%	1.1%	1.7%	-0.8%	1.2%
Boston	10,342	9,798	9,997	10,091	10,160	10,230	10,273			
% Change	0.6%	-5.3%	2.0%	0.9%	0.7%	0.7%	0.4%	1.6%	-2.3%	1.0%
Dartmouth	4,993	4,635	4,512	4,479	4,551	4,735	4,869			
% Change	-5.1%	-7.2%	-2.7%	-0.7%	1.6%	4.0%	2.8%	-3.8%	-6.1%	1.0%
Lowell	10,497	9,554	9,649	9,794	9,943	10,041	10,141			
% Change	-2.7%	-9.0%	1.0%	1.5%	1.5%	1.0%	1.0%	3.1%	-5.9%	1.2%
University	49,262	47,278	47,715	47,849	48,587	49,523	50,059			
	-1.5%	-4.0%	0.9%	0.3%	1.5%	1.9%	1.1%	1.3%	-2.8%	1.2%

Graduate

AAGR

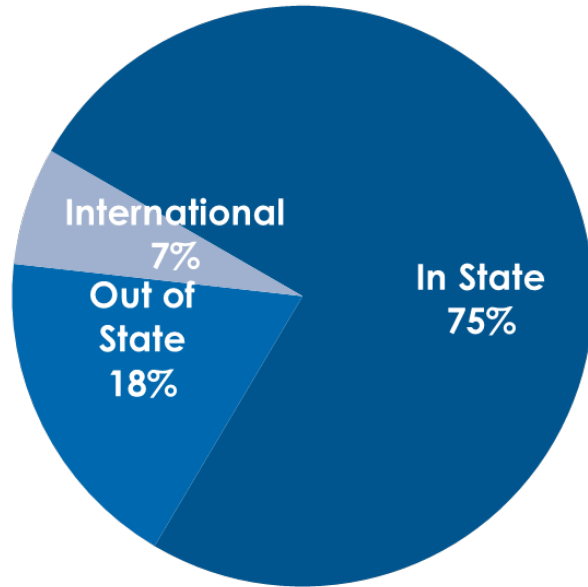
FY17-20: 0.4

FY21-22: -0.7

FY23-27: 1.7

Students FTEs	Actual		Forecast					Average Growth		
	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY17-20	FY21-22	FY23-27
Amherst	3,648	3,734	3,774	3,804	3,829	3,854	3,879			
% Change	-2.4%	2.4%	1.1%	0.8%	0.7%	0.7%	0.6%	2.3%	0.0%	0.8%
Boston	1,783	1,554	1,662	1,675	1,678	1,678	1,678			
% Change	0.7%	-12.8%	6.9%	0.8%	0.2%	0.0%	0.0%	-1.4%	-6.1%	1.6%
Dartmouth	579	566	595	625	655	685	685			
% Change	8.1%	-2.3%	5.1%	5.0%	4.8%	4.6%	0.0%	-8.0%	2.9%	3.9%
Lowell	1,721	1,779	1,814	1,851	1,888	1,925	1,964			
% Change	-2.3%	3.4%	2.0%	2.0%	2.0%	2.0%	2.0%	0.1%	0.5%	2.0%
Chan Medical School	1,242	1,246	1,248	1,279	1,327	1,384	1,434			
% Change	3.9%	0.3%	0.1%	2.5%	3.8%	4.3%	3.6%	3.2%	2.1%	2.9%
University	8,973	8,878	9,092	9,233	9,376	9,525	9,639			
	-0.3%	-1.1%	2.4%	1.6%	1.5%	1.6%	1.2%	0.4%	-0.7%	1.7%

Enrollment by Residency



Students (FTEs)	FY2022
In State	48,688
Out of State	11,833
International	4,247
University	64,768

University

AAGR	FY17-20	FY21-22	FY23-27
In State	1.3%	-1.4%	1.0%
Out of State	-7.4%	3.3%	2.1%
International	-0.8%	-6.3%	2.9%
Total	1.0%	-0.9%	1.3%

Amherst	FY22 FTEs	AAGR		
		FY17-20	FY21-22	FY23-27
In State	20,483	2.0%	-0.6%	1.2%
Out of State	6,049	-2.8%	2.7%	1.4%
International	3,270	12.0%	-2.8%	1.5%
Total	29,802	1.9%	-0.0%	1.2%

Boston	FY22 FTEs	AAGR		
		FY17-20	FY21-22	FY23-27
In State	10,595	0.9%	-0.1%	0.2%
Out of State	1,246	-16.2%	9.2%	3.2%
International	1,102	-6.3%	-15.2%	6.2%
Total	12,943	0.1%	-1.1%	1.1%

Dartmouth	FY22 FTEs	AAGR		
		FY17-20	FY21-22	FY23-27
In State	5,314	-3.5%	-4.4%	0.6%
Out of State	877	-3.9%	7.0%	8.1%
International	268	-8.8%	-15.9%	3.5%
Total	6,459	-2.6%	-3.7%	1.8%

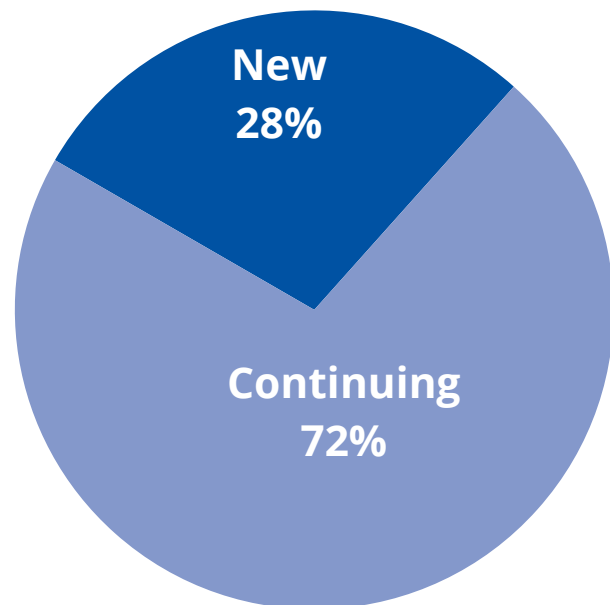
Lowell	FY22 FTEs	AAGR		
		FY17-20	FY21-22	FY23-27
In State	11,507	3.1%	-2.4%	1.3%
Out of State	1,694	-11.8%	2.8%	1.5%
International	1,117	-6.3%	0.6%	1.5%
Total	14,318	2.1%	-1.6%	1.3%

University: Enrollment by Residency

Students (FTEs)	Actual					FY2022		Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	Budget	Actual	FY2023	FY2024	FY2025	FY2026	FY2027
In State	47,908	48,519	49,364	50,072	50,438	50,120	48,688	49,195	49,275	49,866	50,670	51,098
% Change	0.7%	1.3%	1.7%	1.4%	0.7%	1.5%	-3.5%	1.0%	0.2%	1.2%	1.6%	0.8%
Out of State	11,117	11,028	11,069	11,093	11,139	10,982	11,833	11,856	12,120	12,419	12,797	13,127
% Change	-29.5%	-0.8%	0.4%	0.2%	0.4%	-0.8%	6.2%	0.2%	2.2%	2.5%	3.0%	2.6%
International	4,952	4,983	4,914	4,841	4,493	4,507	4,247	4,560	4,660	4,817	4,873	4,905
% Change		0.6%	-1.4%	-1.5%	-7.2%	-8.3%	-5.5%	7.4%	2.2%	3.4%	1.2%	0.6%
University	63,978	64,530	65,348	66,005	66,070	65,609	64,768	65,611	66,055	67,103	68,340	69,129
% Change	1.0%	0.9%	1.3%	1.0%	0.1%	0.4%	-2.0%	1.3%	0.7%	1.6%	1.8%	1.2%

Source: Actuals from student profile.

Undergraduate Enrollment by New vs Continuing



Undergraduate (FTEs) FY2022	
New	13,369
Continuing	33,909
Undergraduate Total	47,278

University

AAGR	FY17-20	FY21-22	FY23-27
New	4.0%	-7.0%	2.1%
Continuing	0.2%	-0.9%	0.8%
UG Total	1.3%	-2.8%	1.2%

Amherst	FY22 FTEs	AAGR		
		FY17-20	FY21-22	FY23-27
New	6,361	4.6%	-6.4%	2.2%
Continuing	16,930	0.5%	1.6%	0.9%
UG Total	23,291	1.7%	-0.8%	1.2%

Boston	FY22 FTEs	AAGR		
		FY17-20	FY21-22	FY23-27
New	3,001	5.1%	-3.8%	1.5%
Continuing	6,797	0.3%	-1.6%	0.7%
UG Total	9,798	1.6%	-2.3%	1.0%

Dartmouth	FY22 FTEs	AAGR		
		FY17-20	FY21-22	FY23-27
New	1,492	-0.5%	-6.8%	4.6%
Continuing	3,143	-5.1%	-5.7%	-0.9%
UG Total	4,635	-3.8%	-6.1%	1.0%

Lowell	FY22 FTEs	AAGR		
		FY17-20	FY21-22	FY23-27
New	2,515	4.5%	-11.7%	1.2%
Continuing	7,039	2.5%	-3.5%	1.2%
UG Total	9,554	3.1%	-5.9%	1.2%

University: Enrollment by New v Continuing

Undergraduate	Actual					FY2022		Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	Budget	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
New	13,132	13,709	14,741	15,472	13,873	13,739	13,369	13,913	14,218	14,495	14,694	14,848
% Change	-1.1%	4.4%	7.5%	5.0%	-10.3%	-6.8%	-3.6%	4.1%	2.2%	2.0%	1.4%	1.0%
Continuing	34,588	34,590	34,616	34,541	35,388	35,058	33,909	33,802	33,631	34,092	34,829	35,211
% Change	1.0%	0.0%	0.1%	-0.2%	2.5%	1.3%	-4.2%	-0.3%	-0.5%	1.4%	2.2%	1.1%
Undergraduate Total	47,720	48,298	49,356	50,013	49,260	48,797	47,278	47,715	47,849	48,587	49,523	50,059
% Change	0.4%	1.2%	2.2%	1.3%	-1.5%	-1.1%	-4.0%	0.9%	0.3%	1.5%	1.9%	1.1%

Source: Actuals from student profile.

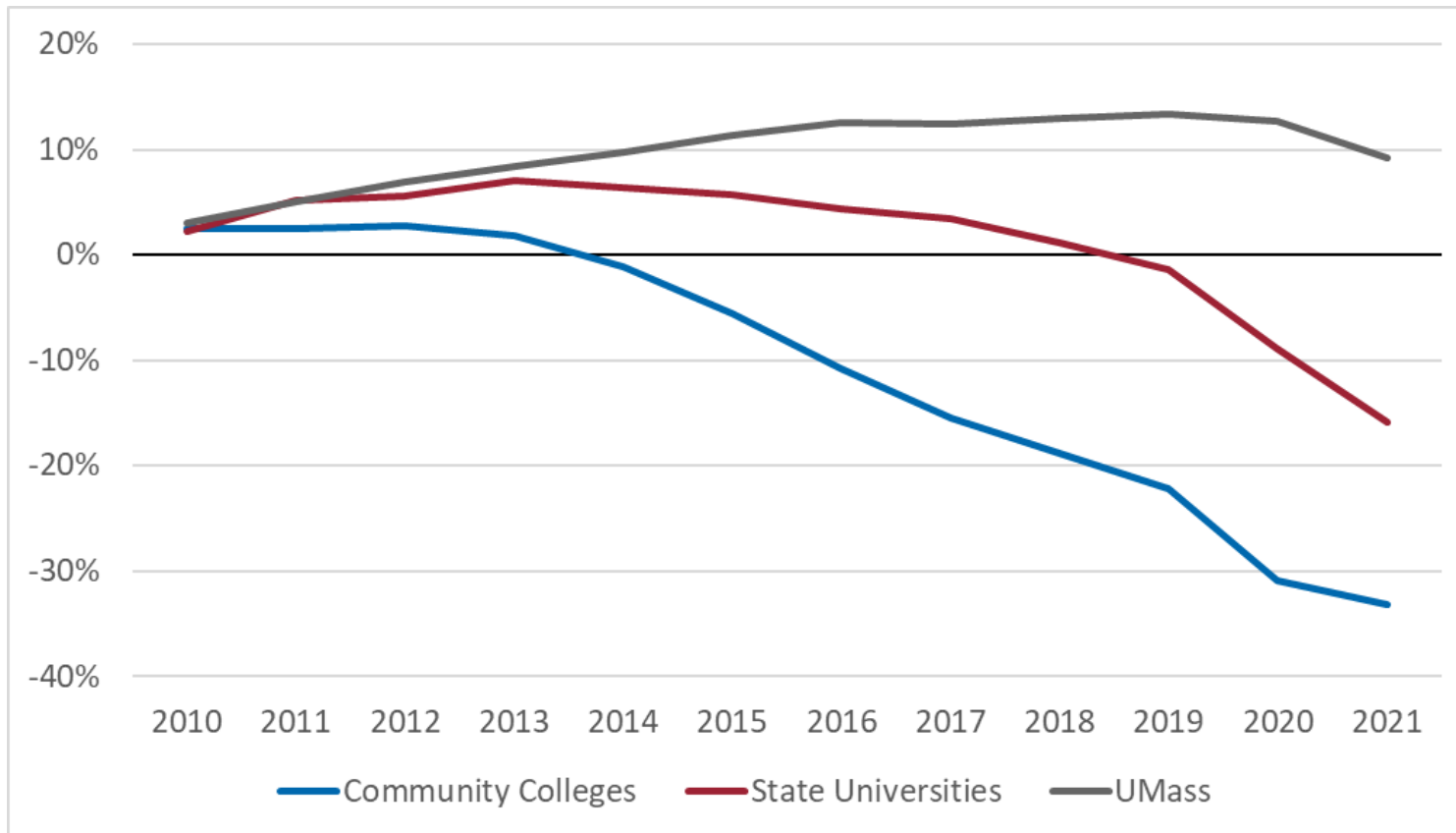
Online Only Student FTEs

- **Campus Online Only:** reflects students taking exclusively online courses through our campuses
- **UMass Global:** reflects students taking courses through UMass Global

Students FTEs	Actual		Forecast					Average Growth		
	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY17-20	FY21-22	FY23-27
Amherst	2,365	2,521	2,577	2,628	2,681	2,734	2,789			
% Change	13.8%	6.6%	2.2%	2.0%	2.0%	2.0%	2.0%	6.1%	10.2%	2.0%
Boston	847	1,308	1,354	1,367	1,375	1,382	1,386			
% Change	10.1%	54.4%	3.5%	1.0%	0.6%	0.5%	0.3%	1.2%	32.3%	1.2%
Dartmouth	689	804	856	916	981	1,030	1,071			
% Change	6.2%	16.7%	6.5%	7.0%	7.0%	5.0%	4.0%	28.5%	11.4%	5.9%
Lowell	2,436	2,878	2,913	2,952	2,990	3,028	3,067			
% Change	24.1%	18.1%	1.2%	1.3%	1.3%	1.3%	1.3%	3.7%	21.1%	1.3%
University	6,337	7,511	7,700	7,864	8,027	8,174	8,313			
	16.1%	18.5%	2.5%	2.1%	2.1%	1.8%	1.7%	5.4%	17.3%	2.0%
Global		6,699	10,217	11,758	13,562	15,612	18,001			
			52.5%	15.1%	15.3%	15.1%	15.3%			22.7%

Massachusetts Higher Education Enrollments

UMass, State Universities & Community Colleges: Cumulative Percent Change in UG Headcount Enrollment: 2010-2021



UMass:

Cumulative Percent Change: **9.1%**
Average Annual Percent Change: **0.7%**

State Universities:

Cumulative Percent Change: **-15.8%**
Average Annual Percent Change: **-1.4%**

Community Colleges:

Cumulative Percent Change: **-33.2%**
Average Annual Percent Change: **-3.2%**

#4. FY21 Financial Results & FY22 Budget



University of Massachusetts

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

UMass Finances: by the Numbers

While UMass is large in scale, it faces significant challenges in meeting its operational goals.



\$3.7 billion annual FY22 budget



\$571 million in state appropriation
(not including fringe)



Nearly 75,000 students by headcount
& **18,000** new graduates annually



\$140 million average
monthly payroll



\$352 million in UMass
funded financial aid



\$122 million average monthly
spend with over **17,000** vendors



\$687 million in annual research &
development



24,000 employees,
3rd largest employer in MA

FY21 Financial Results



FY21 Financial Highlights

\$ in Thousands

Campus	FY2021 ACTUAL			
	Total Revenue	Total Expenses	OM\$	OM %
Amherst	1,253,428	1,265,323	(11,895)	-0.9%
Boston	470,026	442,994	27,032	5.8%
Dartmouth	241,849	240,185	1,664	0.7%
Lowell	477,587	463,884	13,703	2.9%
President's Office	101,841	91,804	10,037	9.9%
Subtotal	2,544,731	2,504,190	40,541	1.6%
Chan Medical School	995,455	967,724	27,731	2.8%
Total (1)(2)	3,459,990	3,391,718	68,272	2.0%

(1) Total expenses does not include GASB 68 (pensions) or GASB 75 (other post employments benefits; or unrealized gains/losses)

(2) Inter-campus eliminations are included in "Total"

- Impacts of COVID-19 continued to ripple through FY21 results
- University operating revenue of \$3.46 billion is flat as compared to FY20; hard work to continue to balance FY21 after the pandemic impacts
- Without CARES Act revenue of \$88.4 million (of which \$58.4 million was dedicated to the institutional portion of aid), total FY21 revenue would have been below FY20 and FY19
- Year end operating surplus of:
 - **\$40.5 million, or 1.6%** without UMass Chan Medical School
 - **\$68.3 million or 2.0%** with UMass Chan Medical School
 - Before GASB adjustments of \$92.3M for large employee postemployment benefits (health and pension)

FY22 Budget





Fiscal Year Budget

What is it?

An annual estimate of revenue and expenses based on reasonable assumptions from July 1 thru June 30

When do we do it?

Typically developed from February thru May and presented to the Board of Trustees in June (timing varies with the adoption of the General Appropriation Act)

- ✓ Constant monitoring and revision through quarterly reporting process

What is included?

- ✓ Sources of revenue; uses of expenses
- ✓ Views of revenue and expenses by campus, by category, by program area
- ✓ Assumptions for enrollment and staffing levels
- ✓ Key financial ratios including an estimated year end surplus or deficit
- ✓ Drivers of revenue and expense changes
- ✓ Plans required to increase revenue or reduce expenses to achieve the budget

Why do we do it?

- ✓ To establish annual goals within the constraint of available resources to guide decision making
- ✓ To develop policies, plans and strategies to achieve goals
- ✓ To promote effective communication with stakeholders

Key Links:

- ✓ [FY22 Budget document](#)





FY Quarterly Projection

What is it?

An evaluation of year-to-date actual revenue and expenses at defined points (quarterly) and assumptions for revenue and expenses for the remainder of the fiscal year compared to budget

When do we do it?

Developed at the close of each quarter (9/30, 12/31, 3/31) and presented to the Board of Trustees at each subsequent meeting

What is included?

- ✓ Sources of revenue; uses of expenses
- ✓ Summary of budget, actuals (year-to-date) and year end projection
- ✓ Actuals for enrollment and staffing levels
- ✓ Projected year end surplus or deficit
- ✓ Experience to date to implement plans to achieve the budget

Why do we do it?

- ✓ To evaluate trends that have or may have a positive or negative impact on revenue or expenses
- ✓ To monitor and measure performance against budget
- ✓ To make real-time corrections and adjustments to achieve budget targets

FY22 Budget: Key Takeaways

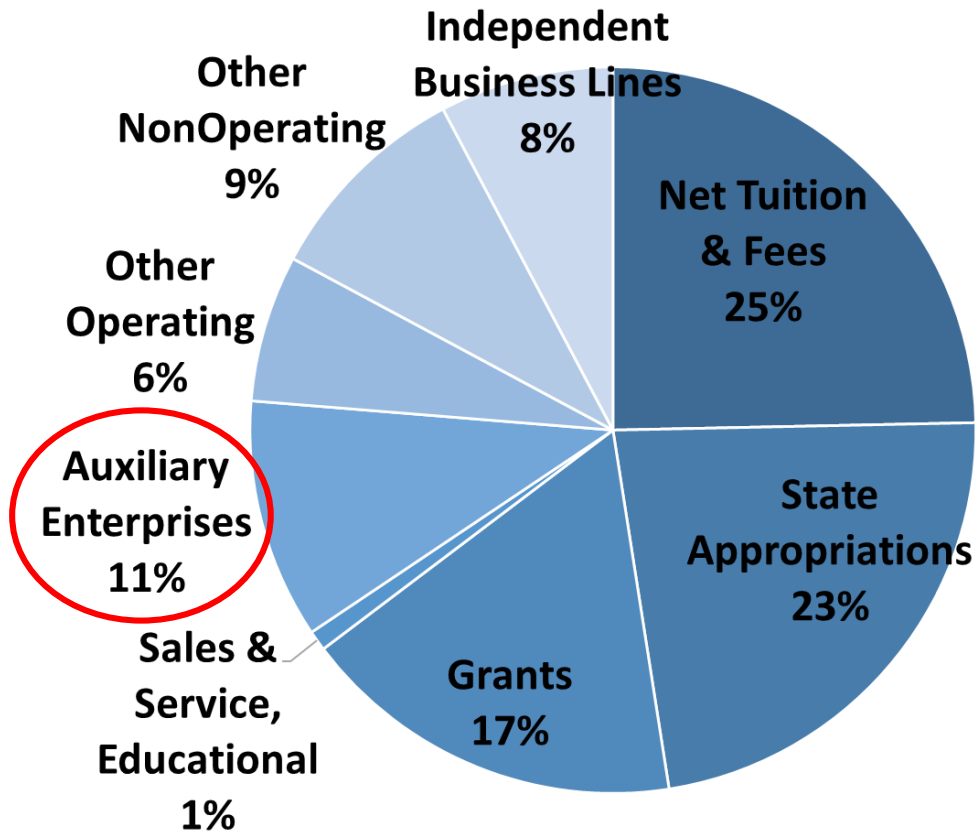
- Campuses returning to normal academic & student life activities; campus housing is open
- Staffing levels growing consistent with campuses being open
- Applications are up, expecting enrollment to be stable
 - Uncertainty remains but real-time monitoring will continue
- Federal stimulus funds are critical and allow the University to avoid deficits
- Absent federal stimulus the University has a structural gap
- Long term financial planning is required
 - Financial forecast delivered in December to demonstrate structural balance and a return to positive operating margins
- Accountability framework guides our approach to long term financial sustainability

FY22 Budget: Assumptions

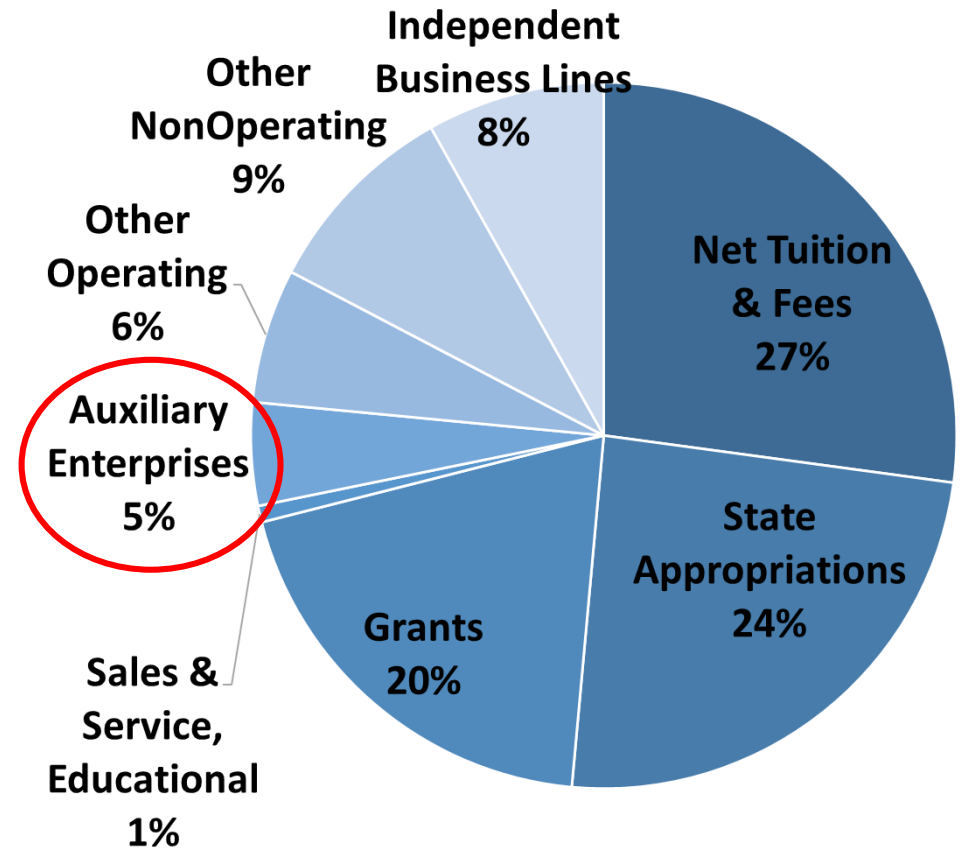
Category	Assumption
Tuition & Fees	In-State Student Tuition Freeze <ul style="list-style-type: none"> • In-state: 0% (second year in a row) • Out-of-state: 0% Boston, Dartmouth, Lowell; 1.5% Amherst
Enrollment	65,609 FTEs; -0.7%
Fall Operations	On campus; occupancy assumptions vary
Staffing	Increasing consistent with campus operating plans
Stimulus	\$138.4 million <ul style="list-style-type: none"> • Student Aid: \$68.8 million • Institutional Aid: \$69.6 million
State	Level funding + collective bargaining <ul style="list-style-type: none"> • Appropriation increase: \$11 million • Collective bargaining: <ul style="list-style-type: none"> • FY21 = 1.5% one-time; FY22 = 2%; FY23 = 2% • Cost = \$41 million • State support = \$17 million

University Revenue Sources

FY22 Total Revenue = \$3.7B



FY21 Total Revenue = \$3.4B



FY22 Q1 Projection (as of 9/30/21)

- **Amherst:** improved OM driven by enrollment (+79) & occupancy (+800) better than budget
- **Boston:** reduced OM driven by enrollment (-543)
- **Dartmouth:** OM meeting budget; enrollment improvement (+106); occupancy lower than budget (-97)
- **Lowell:** negative margin planned based on recognition of federal stimulus across FY21-22
- **Federal Stimulus:** includes non-recurring Student Aid of \$66.9 million and Institutional Aid of \$70.8 million
- **Collective Bargaining:** impact of change to FY21 parameters included reflecting increased costs of \$38.2 million with 40% of the cost increase state funded

Campus	FY22: Budget				FY22: Q1 Projection				Projection
	Total Revenue	Total Expenses	OM\$	OM%	Total Revenue	Total Expenses	OM\$	OM%	Vs. Budget OM \$ Change
Amherst	1,410,426	1,400,661	9,765	0.7%	1,483,883	1,458,822	25,061	1.7%	15,296
Boston	480,622	474,138	6,484	1.3%	480,418	480,418	-	0.0%	(6,484)
Dartmouth	264,661	264,661	-	0.0%	263,643	263,643	-	0.0%	0
Lowell	511,316	520,147	(8,831)	-1.7%	523,616	532,432	(8,816)	-1.7%	15
Chan Medical School	980,118	960,489	19,629	2.0%	956,570	937,690	18,880	2.0%	(749)
President's Office	105,065	101,639	3,426	3.3%	103,144	99,718	3,426	3.3%	0
Total (1)	3,670,550	3,640,078	30,472	0.8%	3,729,617	3,691,066	38,551	1.0%	8,079

(1) Does not include impacts of GASB 68 & 75; OM revenue excludes unrealized gains/losses



Federal Stimulus



Federal Stimulus

TOTAL STUDENT AID					
<i>(\$ in Thousands)</i>					
Campus	FY20 Actual	FY21 Actual	FY22 Estimate	FY23 Estimate	Student Total
Amherst	8,882	9,116	25,594	-	43,592
Boston	2,527	10,234	17,984	-	30,745
Dartmouth	460	5,069	7,991	2,000	15,520
Lowell	2,726	5,334	14,924	-	22,983
Chan Medical School	122	188	398		708
Sub Total	14,717	29,941	66,891	2,000	113,549

INSTITUTIONAL AID					
<i>(\$ in Thousands)</i>					
Campus	FY20 Actual	FY21 Actual	FY22 Estimate	FY23 Estimate	Institutional Total
Amherst	8,882	18,995	26,263	-	54,140
Boston	1,734	18,699	20,169	-	40,601
Dartmouth	460	8,914	8,518	2,000	19,892
Lowell	2,726	11,190	15,643	-	29,558
Chan Medical School	-	625	208		833
Sub Total	13,801	58,422	70,800	2,000	145,024

Grand Total	28,519	88,363	137,691	4,000	258,573
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- Campuses plan to use all remaining stimulus in FY22 with the exception of Dartmouth, which will require an extension
- FY22 budget planned for \$69.6 million; current projections reflects \$70.8

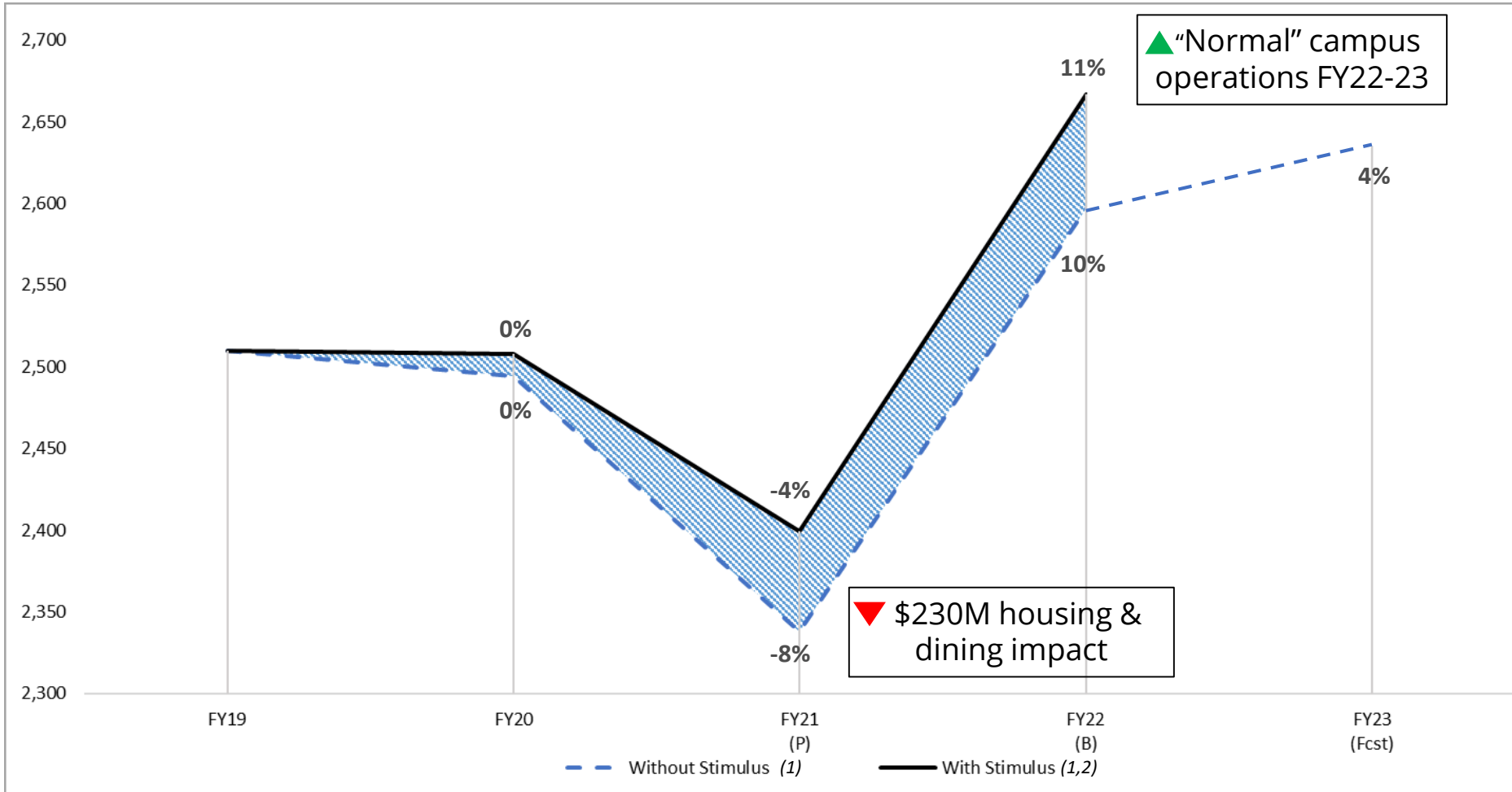
State Allocation of ARPA Funds

- **\$15 million**: UMass portion of Endowment Incentive Match Program
 - Incentivizes private giving to the University, with proven results
- **\$30 million**: UMass portion of COVID Impact Mitigation funding
 - Aids in mitigating the impacts of COVID-19 and enables certain capital maintenance projects
- **\$2.2 million**: Funding for specific programs at UMass, including:
 - Community veterinary clinic at Mt. Ida campus
 - Gloucester Marine Genomics Institute
 - Water and Energy Testing Facility at UMass Amherst
 - Center for African, Caribbean, and Community Development at UMass Boston

Federal Stimulus to Support Post-COVID Operating Plans

- **Guiding principles for use:**
 - Bridge to a post-COVID environment; backfill lost revenue in FY21 & FY22
 - One-time investments
 - Strategic investments that grow revenue (enrollment and retention)
- **Post-COVID operating requirements:**
 - Address student health & wellness
 - Workforce stabilization consistent with operating plans
 - Augment space for health & safety
 - Flexible / hybrid learning space
 - Targeted capital and technology improvements

Stimulus Helps Bridge Undergraduate Revenue Loss



% Growth	Average Annual	Total
FY19-23	1.4%	4.7%
FY14-18	3.5%	14.1%

- Stimulus used as a bridge while campus operations transition back to 'normal'
- Increased housing occupancy and stable enrollment trends will drive revenue growth

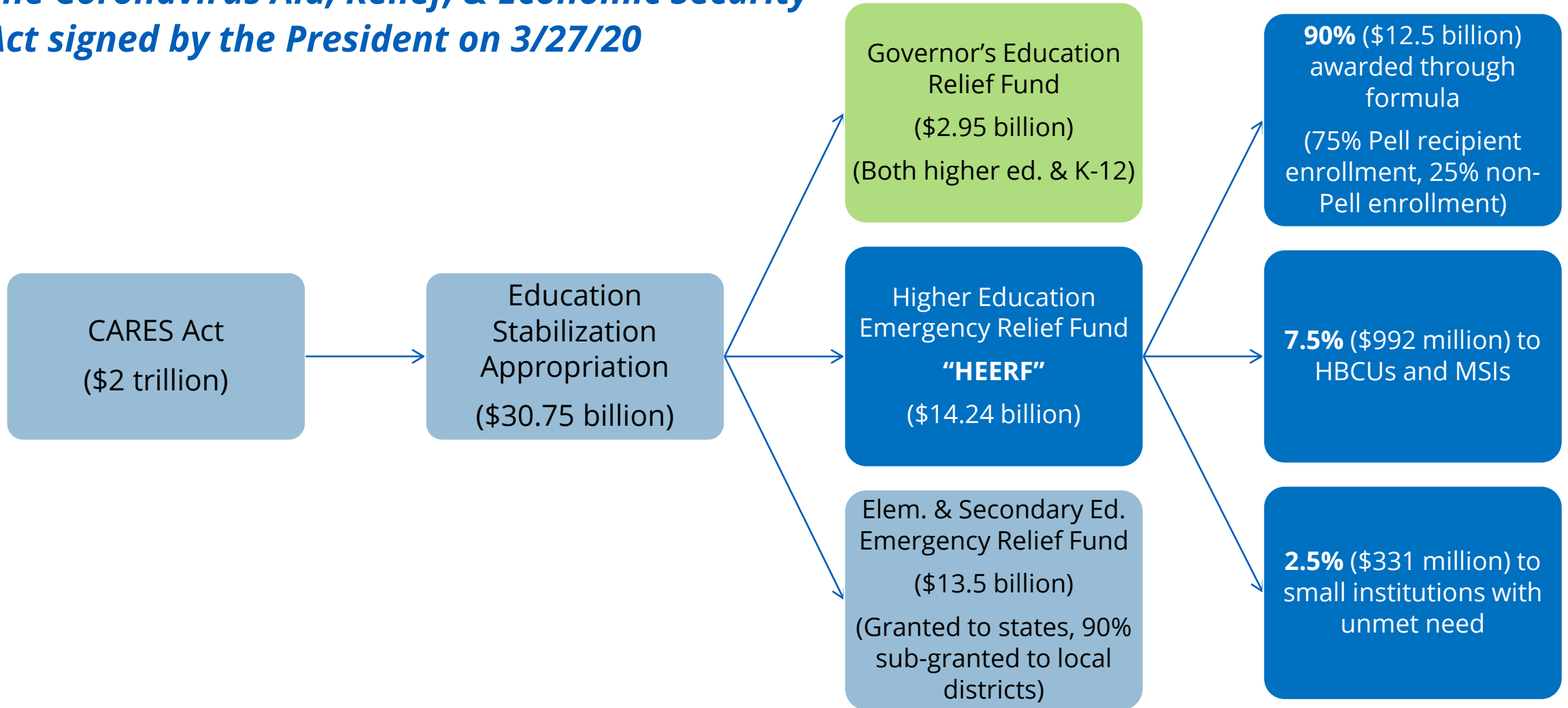
As of FY22 Budget presentation, July 2021.

(1) Total revenue for Amherst, Boston, Dartmouth, Lowell; excludes UMass Chan Medical School & President's Office

(2) Includes CARES, HEERF II & HEERF III; Assumes near pre-COVID occupancy in fall FY22; normal thereafter

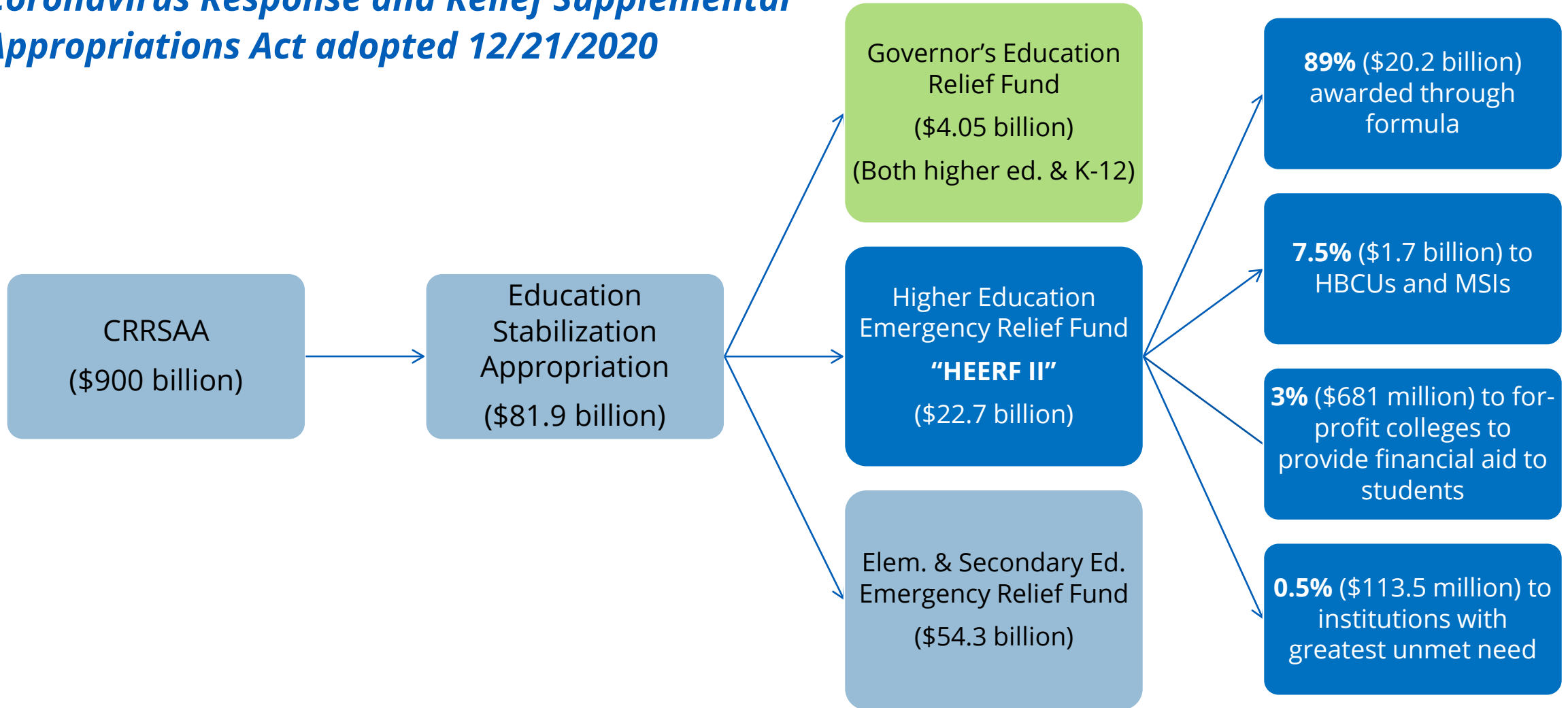
CARES Act Funding for Higher Education

The Coronavirus Aid, Relief, & Economic Security Act signed by the President on 3/27/20



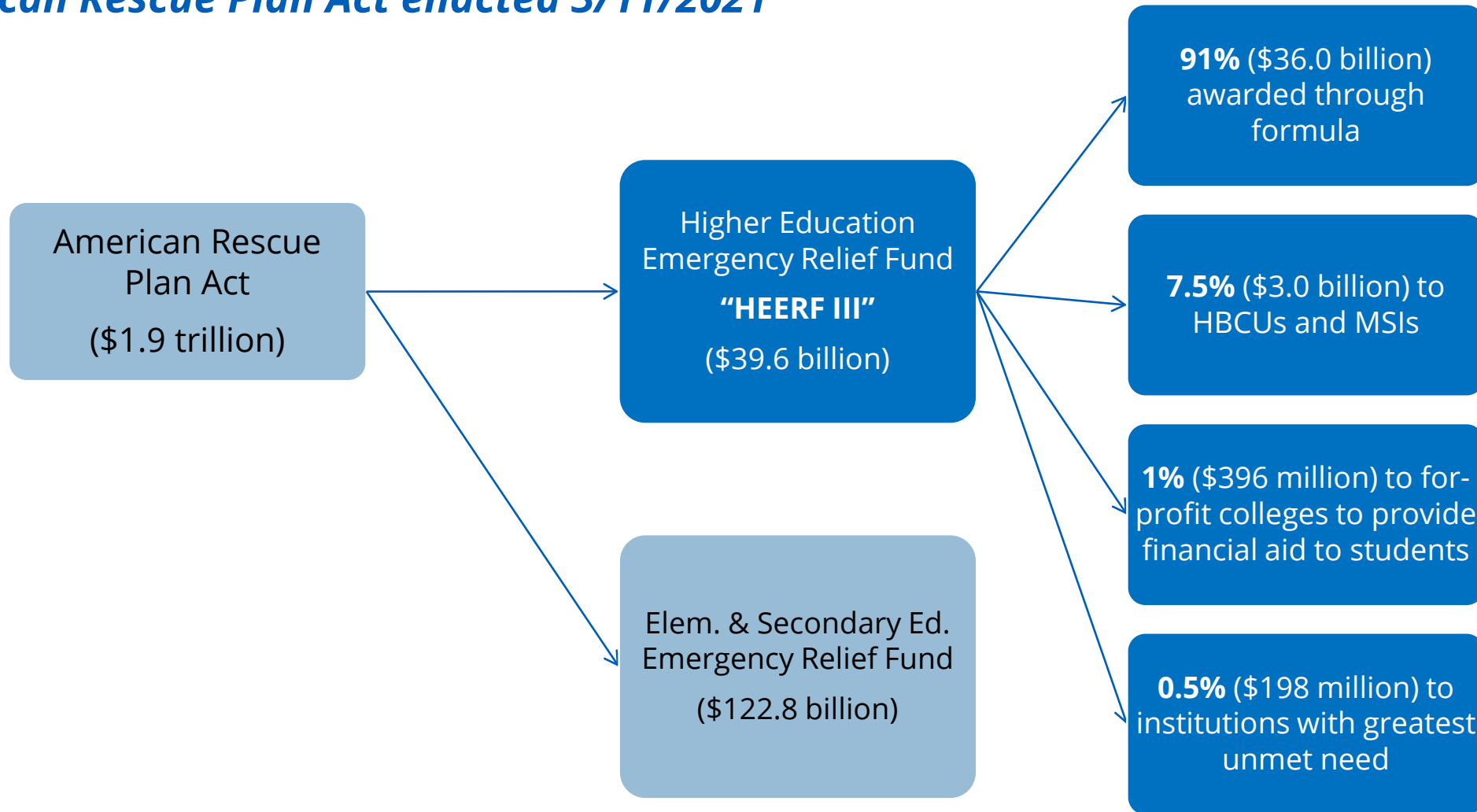
CRRSAA “HEERF II” Funding for Higher Education

Coronavirus Response and Relief Supplemental Appropriations Act adopted 12/21/2020



ARPA “HEERF III” Funding for Higher Education

American Rescue Plan Act enacted 3/11/2021



#5. Multi-Year Review & Financial Forecast

FY17-27



University of Massachusetts

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

Financial Forecast

What is it?

A tool used to evaluate current and future fiscal conditions to guide policy and programmatic decisions

When do we do it?

Developed from August to October and presented to the Board of Trustees in December

What is included?

- ✓ Reasonable of assumptions of the major revenue and expense drivers
- ✓ Five years of history, current year budget / year end projection, and five years of forecasted revenue, expenses, enrollment and staffing
- ✓ Impact of assumptions on key financial ratios
- ✓ Sensitivity analysis to evaluate changes to key assumptions

Why do we do it?

- ✓ To present estimated information based on past, current, and projected financial experience and assumptions
- ✓ To identify future revenue, expenditure and demographic trends that may have an immediate or long-term impact on decisions, policies, and strategic goals
- ✓ To promote effective communication with stakeholders on longer term assumptions and goals

Key Links:

- ✓ [FY23-27 Forecast](#)

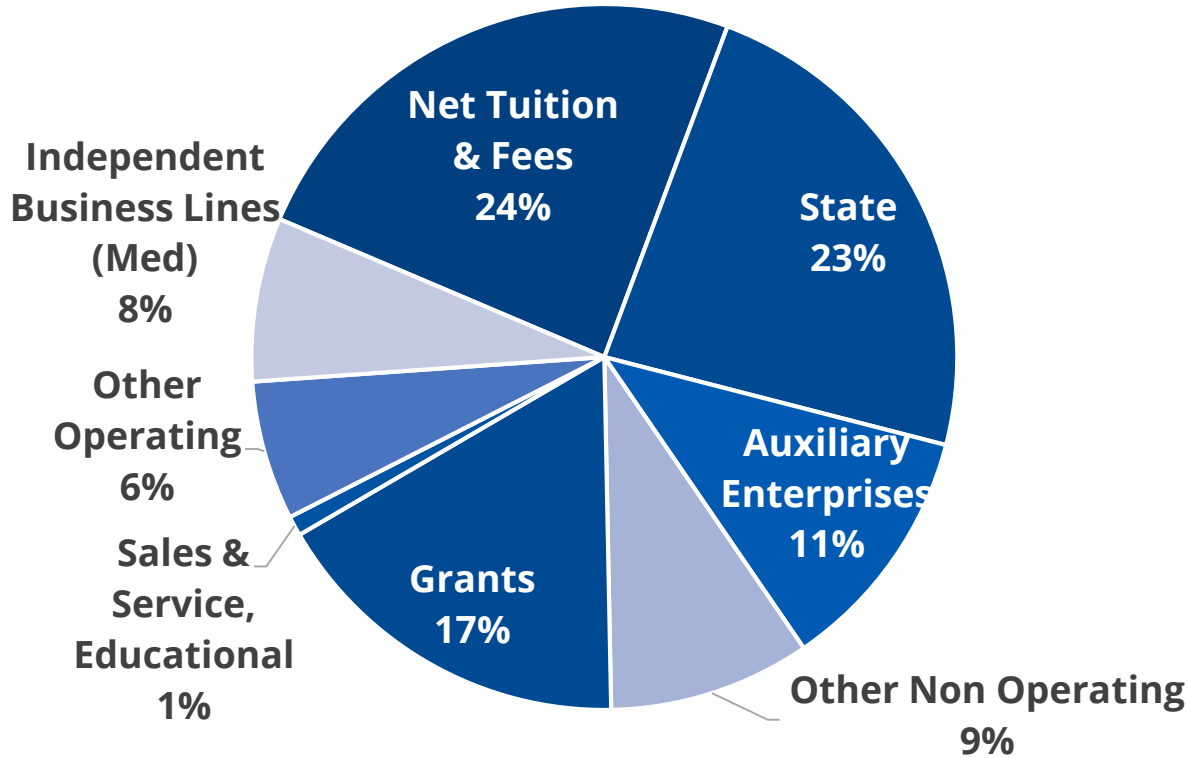


Revenue

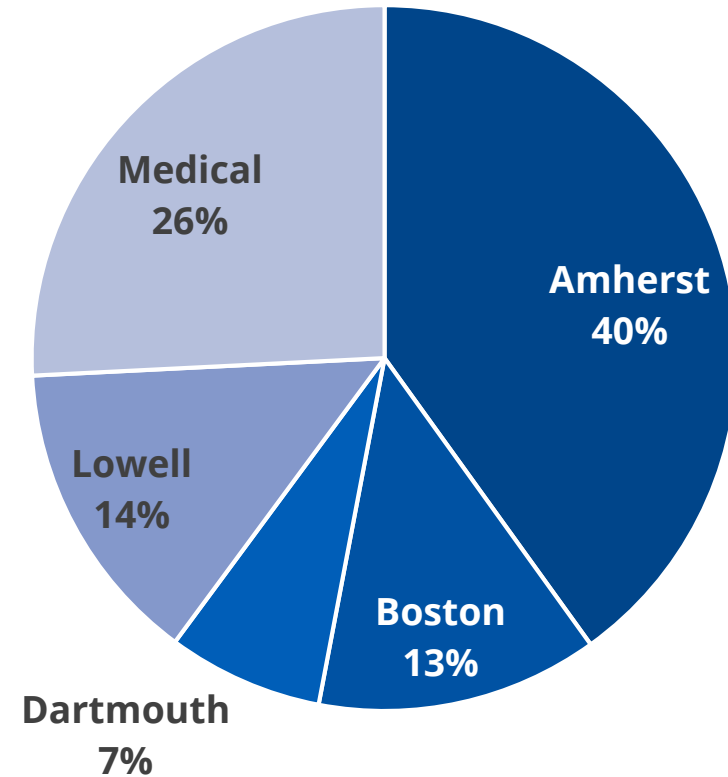


University Revenue: by Category & Campus

FY22 Revenue Categories = \$3.7 billion



FY22 Campus Revenue



University Revenue: Trend

Revenue grows on average 2.9% over the forecast period.



Tuition & Fees

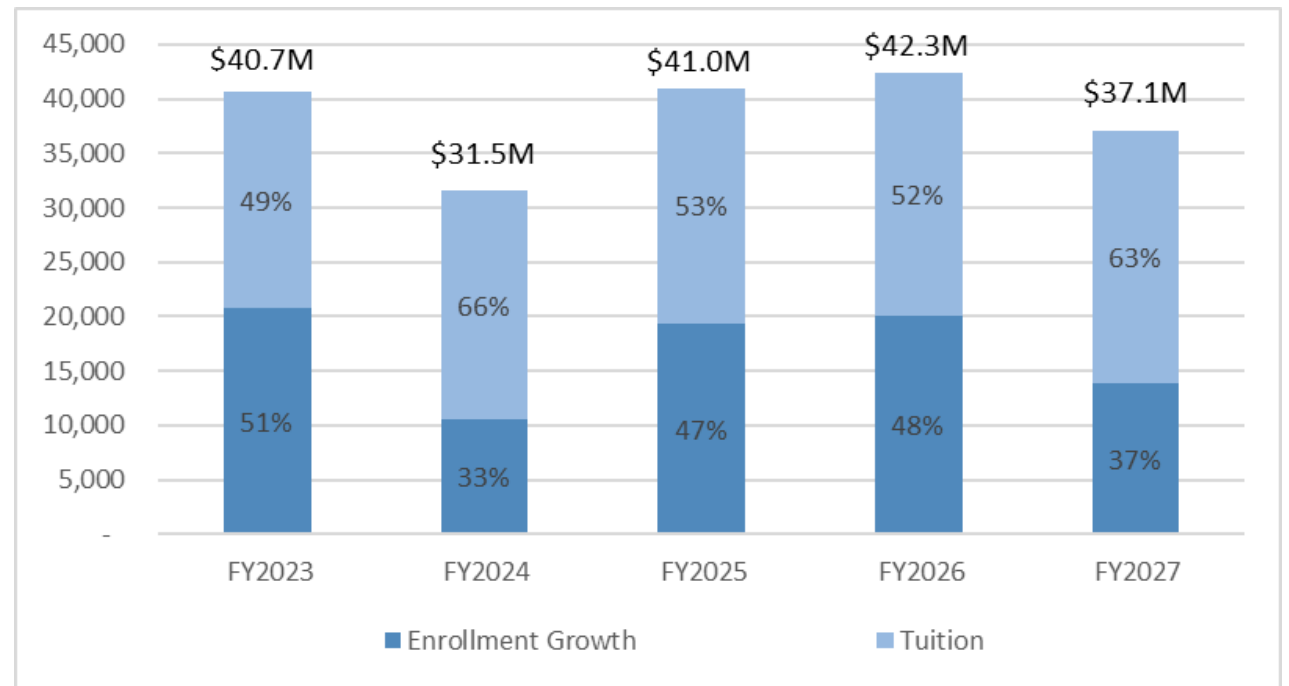
- **Key Takeaway:** on average 43% of growth driven by enrollment with remainder driven by tuition increases
- **FY21-22 Freeze:** resulted in a cumulative base net revenue loss of \$32M
- **AAGR FY21-23 = 0.8%**

Increase Assumptions	Undergraduate		Graduate (1)	
	In State	Out of State	In State	Out of State
Amherst	2.5%	3.0%	2.5%	3.0%
Boston	2.5%	3.0%	3.0%	3.0%
Dartmouth	2.5%	2.5%	0-3.0%	0-3.0%
Lowell	2.5%	2.5%	2.5%	2.5%
Medical	-	-	2.5%	2.5%

(1) Dartmouth: FY23=0%, FY24 = 1.5%, FY25 = 2.5%, FY26-27 = 3%

FY22 Projection	Avg % Revenue	AAGR
Total: \$907M	FY17-20: 26	FY17-20: 2.6
% of Rev: 24	FY21-22: 26	FY21-22: -0.6
	FY23-27: 25	FY23-27: 3.9

Growth in Tuition & Fee Revenue*:



*FY24 enrollment growth is less than other years because Amherst had a large entering class of Fall 2019 that will leave beginning in FY24

Auxiliary

- **Key Takeaway:** on average 64% of growth driven by rate increases with remainder driven by occupancy and other such as conferences, parking, etc.

- **Occupancy:**

Forecast Average		FY22
Amherst	100%	100%
Dartmouth	66%	61%
Lowell	96%	82%

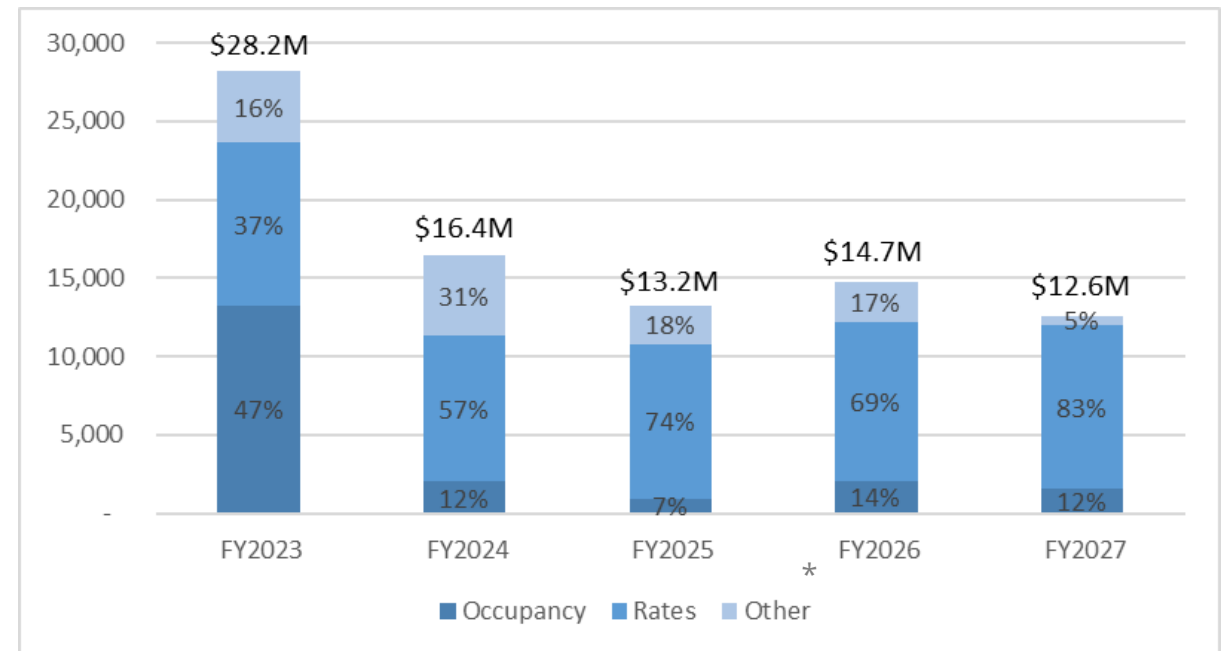
- **Fee Increases:**

Housing Average		Dining Average	
Amherst	3.0%	Amherst	3.0%
Boston	N/A	Boston	3.0%
Dartmouth	1.4%	Dartmouth	3.0%
Lowell	2.5%	Lowell	2.5%

FY22 Projection	Avg % Revenue	AAGR*
Total: \$427M	FY17-20: 12	FY17-19: 4.9
% of Rev: 11	FY21-22: 8	FY20-22: 29.9
	FY23-27: 12	FY23-27: 3.7

*COVID year for Auxiliary began in FY20

Growth in Auxiliary Revenue:



*Other includes auxiliaries such as conferences, parking, retail dining, etc.



Sensitivity Analysis: Impact of Key Revenue Drivers

\$ in Thousands

- Revenue growth is limited and driven by enrollment, occupancy, tuition rates and state funds

Revenue Sensitivity	Enrollment (+/-) 100	Occupancy (+/-) 100	Tuition		Total	% of Revenue
			In State (each 1%)	State (each 1%)		
Amherst	1,900	1,300	1,701	2,736	7,637	0.5%
Boston	1,900	-	1,212	1,014	4,127	0.9%
Dartmouth	1,900	1,300	356	650	4,205	1.6%
Lowell	1,900	1,300	1,241	900	5,341	1.0%
Total	7,600	3,900	4,510	5,712	21,310	0.6%

- Overall expenses increase on average by 2.7% with the majority of increases related to fixed costs
- Modest revenue growth only covers a fraction of fixed cost increases

Annual Cost Drivers	University Total	% of Expenses
Collective Bargaining (2%)	32,000	0.9%
Fringe (2% growth)	28,000	0.8%
Non-Personnel (1.8% growth)	19,000	0.5%
Depreciation & Interest	9,000	0.2%
Total	88,000	2.4%

Sensitivity Analysis: Tuition Rate Impacts Over Time

- Tuition increases are recurring and impact base revenue
- Changes to proposed rates have base effects forever
- To a student, every 1% increase has an average net impact of \$103 per year

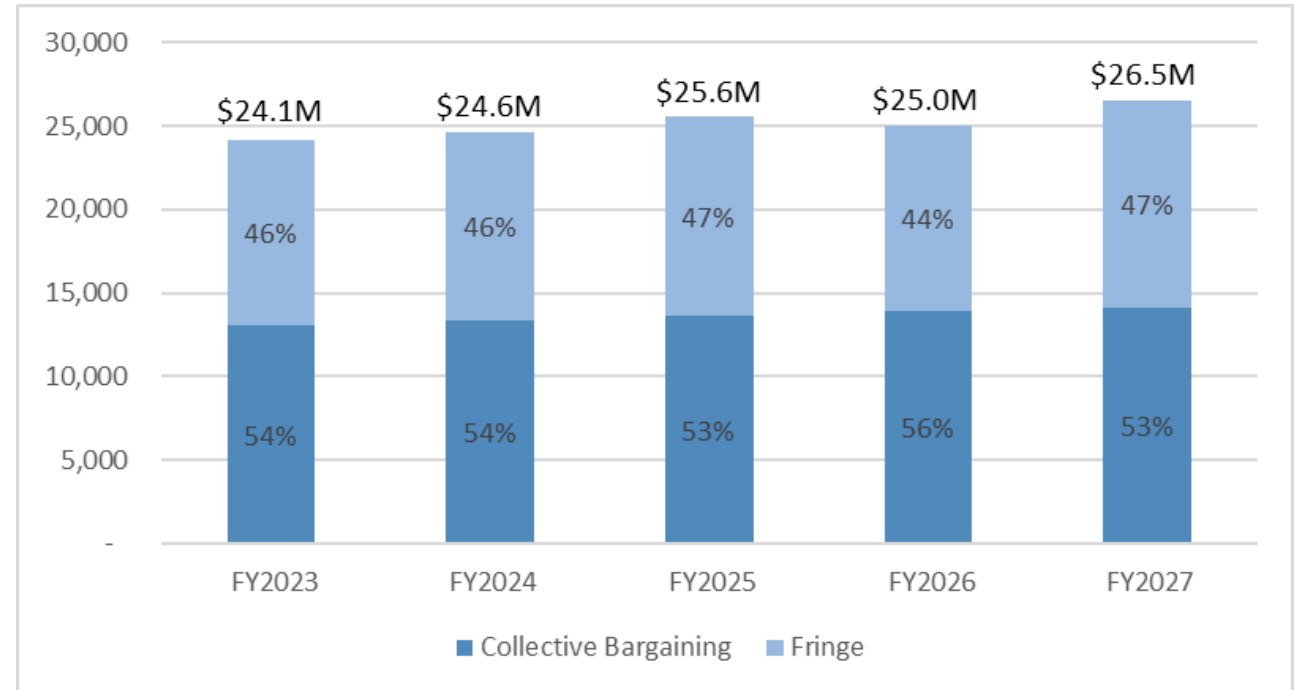
Net Impact 1% In State Undergrad Tuition Increase					
	FY23	FY24	FY25	FY26	FY27
Year 1	4,510	4,510	4,510	4,510	4,510
Year 2		4,820	4,820	4,820	4,820
Year 3			4,830	4,830	4,830
Year 4				4,987	4,987
Year 5					5,115
Annual Total	4,510	9,330	14,160	19,147	24,262
Cumulative Total	4,510	13,840	28,001	47,148	71,410
<i>% of Total Revenue</i>	<i>0.1%</i>	<i>0.4%</i>	<i>0.7%</i>	<i>1.1%</i>	<i>1.7%</i>

State

- Key Takeaway:** State revenue only grows to support increased fixed costs of collective bargaining & fringe; no new state investment assumed over the forecast period
- Collective Bargaining:** 2% annual increases assumed; total annual cost of \$32M. State reimburses 40% of total cost.
- Fringe Benefits Rate:** on average 42% applied to salaries; rate grows annually by historical average of 2%; larger historical growth driven by higher fringe rate

<u>FY22 Projection</u>	<u>Avg % Revenue</u>	<u>AAGR</u>
Total: \$872M	FY17-20: 22	FY17-20: 4.9
% of Rev: 23	FY21-22: 24	FY21-22: 3.7
	FY23-27: 23	FY23-27: 2.7

Growth in State Revenue:



Other Non-Operating

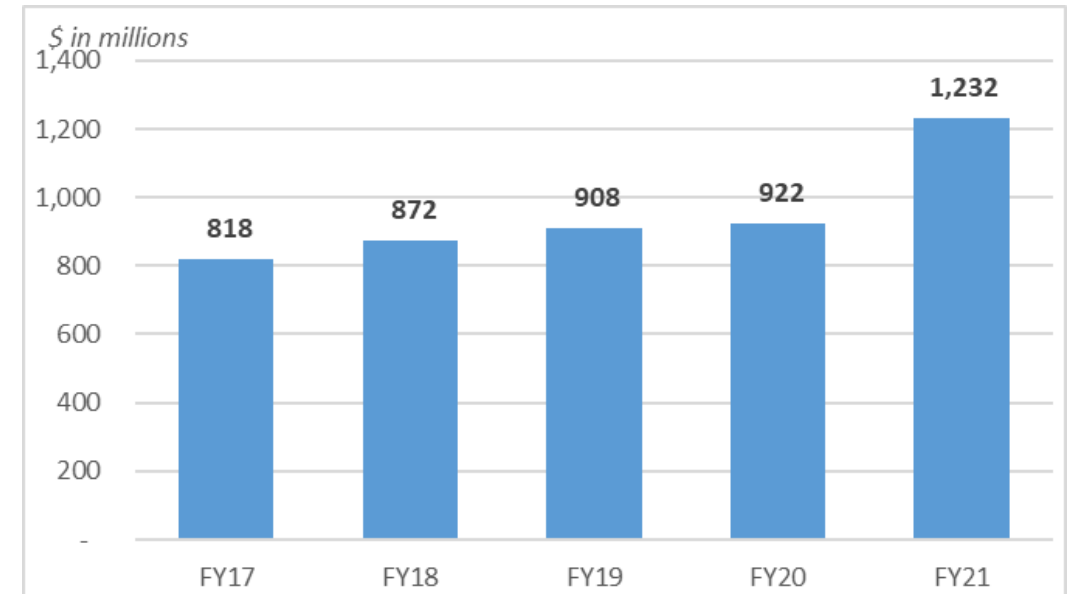
<u>FY22 Projection</u>	<u>Avg % Revenue</u>	<u>AAGR</u>
	FY17-20: 6	FY17-20: 8.6
Total: \$346M	FY21-22: 9	FY21-22: 24.9
% of Rev: 9	FY23-27: 6	FY23-27: -3.9

- Significant reduction in FY23 driven by end of available stimulus funds
 - In total \$137.7 million
 - Institutional \$70.8 million
 - Remaining stimulus planned in FY22 with small amount for Dartmouth carried into FY23
- During the forecast period, the endowment grows and amount available for operations increases reflecting the Chan and Manning gifts

Federal Stimulus:

	FY20-21	FY22	FY23	
<i>(\$ in Thousands)</i>	Actuals	Estimate	Estimate	Total
Student Aid	44,658	66,891	2,000	113,549
Institutional Aid	72,224	70,800	2,000	145,024
Total	116,882	137,691	4,000	258,573

Endowment Growth thru FY21:



Grants

Key Takeaways:

- 79% of grant revenue is attributed to Amherst and UMass Chan Medical School
- Grant revenue has corresponding expenses in salaries & fringe and non-personnel to support the work of the grant
- Annual growth reflects assumptions based on historical increases and campus specific plans to grow research

<u>FY22 Projection</u>	<u>Avg % Revenue</u>	<u>AAGR</u>
Total: \$632M	FY17-20: 17	FY17-20: 2.5
% of Rev: 17	FY21-22: 18	FY21-22: 4.7
	FY23-27: 19	FY23-27: 5.7

<i>\$ in Thousands</i>	FY23	FY24	FY25	FY26	FY27
Amherst	177,740	183,651	189,756	196,063	202,578
<i>% Change</i>	3%	3%	3%	3%	3%
<i>% of Total Revenue</i>	12%	12%	12%	12%	12%
Boston	60,536	61,747	62,982	64,241	65,526
<i>% Change</i>	3%	2%	2%	2%	2%
<i>% of Total Revenue</i>	13%	13%	13%	13%	13%
Dartmouth	20,659	21,072	22,493	22,943	23,402
<i>% Change</i>	2%	2%	7%	2%	2%
<i>% of Total Revenue</i>	8%	8%	8%	8%	8%
Lowell	69,365	74,071	77,918	81,959	86,205
<i>% Change</i>	5%	7%	5%	5%	5%
<i>% of Total Revenue</i>	13%	14%	14%	14%	14%
Chan Medical School	351,183	385,152	425,317	441,086	457,413
<i>% Change</i>	11%	10%	10%	4%	4%
<i>% of Total Revenue</i>	35%	37%	38%	38%	39%
University	676,170	722,313	775,019	802,777	831,538
<i>% Change</i>	7%	7%	7%	4%	4%
<i>% of Total Revenue</i>	18%	19%	19%	19%	19%

Other Revenue Categories

- **Sales & Service, Educational:** activities that provide instructional and lab experience for students and that incidentally create goods and services that may be sold to students, faculty, staff, and the general public

<u>FY22 Projection</u>	<u>Avg % Revenue</u>	<u>AAGR</u>
Total: \$34M	FY17-20: 1	FY17-20: 3.7
% of Rev: 1	FY21-22: 1	FY21-22: 4.5
	FY23-27: 1	FY23-27: 3.7

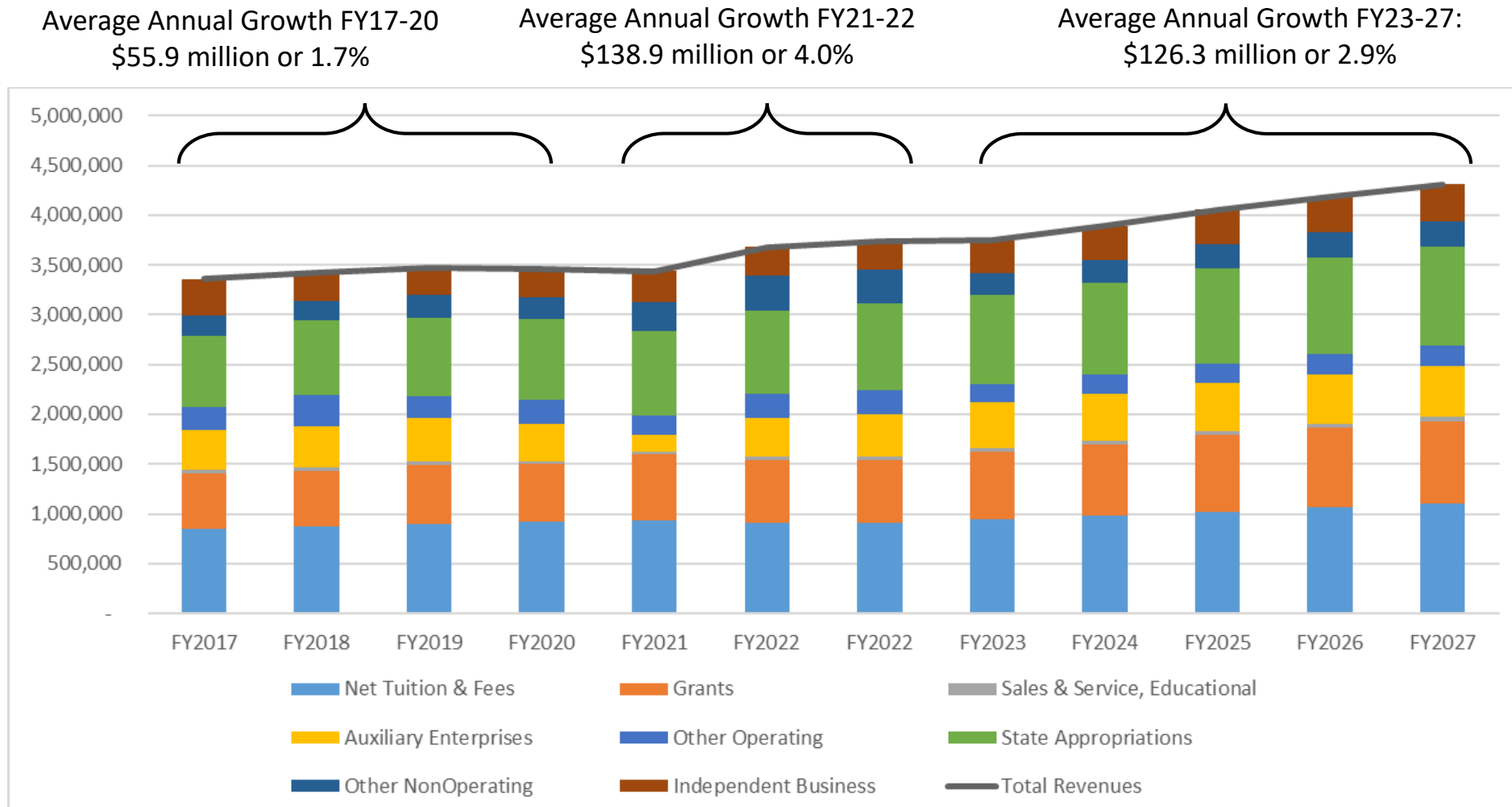
- **Other Operating:** all sources of revenues not included in other classifications such as miscellaneous rentals and sales, miscellaneous fees, and items not material enough for separate disclosure

<u>FY22 Projection</u>	<u>Avg % Revenue</u>	<u>AAGR</u>
Total: \$239M	FY17-20: 7	FY17-20: -9.7
% of Rev: 6	FY21-22: 6	FY21-22: 15.7
	FY23-27: 5	FY23-27: -2.7

- **Independent Business Lines:** UMass Chan Medical School MassBiologics and Commonwealth Medicine

<u>FY22 Projection</u>	<u>Avg % Revenue</u>	<u>AAGR</u>
Total: \$280M	FY17-20: 9	FY17-20: 2.5
% of Rev: 8	FY21-22: 8	FY21-22: -8.9
	FY23-27: 9	FY23-27: 5.9

University Revenue: Diverse Sources



Includes unrealized gains

University Revenue: by Revenue Category

\$ in Thousands	Actual					Budget	Q1 Projection	Forecast					Change FY23-27	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Cumulative	Avg. Annual
Gross Tuition & Fees	1,136,540	1,185,826	1,223,734	1,260,906	1,275,742	1,279,182	1,269,024	1,323,971	1,368,279	1,424,353	1,483,771	1,537,506	213,535	
Gross Tuition & Fees Growth	6.1%	4.3%	3.2%	3.0%	1.2%	0.3%	-0.5%	4.3%	3.3%	4.1%	4.2%	3.6%	16.1%	3.9%
Tuition Discounts	(288,708)	(311,000)	(328,830)	(343,030)	(345,128)	(371,518)	(362,416)	(376,824)	(389,728)	(404,951)	(422,189)	(438,957)	(62,132)	
Tuition Discounts Growth	18.3%	7.7%	5.7%	4.3%	0.6%	7.6%	5.0%	4.0%	3.4%	3.9%	4.3%	4.0%	16.5%	3.9%
Net Tuition & Fees	847,832	874,825	894,904	917,876	930,614	907,664	906,608	947,147	978,551	1,019,401	1,061,582	1,098,550	151,403	
Net Tuition & Fees Growth	2.5%	3.2%	2.3%	2.6%	1.4%	-2.5%	-2.6%	4.5%	3.3%	4.2%	4.1%	3.5%	16.0%	3.9%
Grants	560,081	560,990	593,086	581,849	667,148	631,956	632,039	676,170	722,313	775,019	802,777	831,538	155,368	
Grants Growth	6.0%	0.2%	5.7%	-1.9%	14.7%	-5.3%	-5.3%	7.0%	6.8%	7.3%	3.6%	3.6%	23.0%	5.7%
Sales & Service, Educational	28,910	30,591	34,984	31,248	30,253	33,087	33,963	36,573	37,533	38,534	39,577	40,662	4,090	
Sales & Service, Educational Growth	5.1%	5.8%	14.4%	-10.7%	-3.2%	9.4%	12.3%	7.7%	2.6%	2.7%	2.7%	2.7%	11.2%	3.7%
Auxiliary Enterprises	400,822	416,733	441,795	378,314	163,811	392,819	427,115	455,352	471,785	485,021	499,733	512,334	56,982	
Auxiliary Growth	4.6%	4.0%	6.0%	-14.4%	-56.7%	139.8%	160.7%	6.6%	3.6%	2.8%	3.0%	2.5%	12.5%	3.7%
Other Operating	233,717	311,119	222,076	179,034	199,854	240,548	239,262	184,010	188,322	194,072	198,739	202,080	18,070	
Other Operating Growth	-23.9%	33.1%	-28.6%	-19.4%	11.6%	20.4%	19.7%	-23.1%	2.3%	3.1%	2.4%	1.7%	9.8%	-2.7%
State	720,817	751,894	780,222	810,518	845,482	840,544	872,295	896,416	921,009	946,577	971,590	998,078	101,662	
State Growth	7.6%	4.3%	3.8%	3.9%	4.3%	-0.6%	3.2%	2.8%	2.7%	2.8%	2.6%	2.7%	11.3%	2.7%
Other Non Operating	195,089	197,142	231,504	222,128	288,591	346,557	345,822	215,044	230,795	243,021	249,646	256,980	41,935	
Other Non-Operating Growth	19.9%	1.1%	17.4%	-4.1%	29.9%	20.1%	19.8%	-37.8%	7.3%	5.3%	2.7%	2.9%	19.5%	-3.9%
Independent Business Lines (Med)	371,618	274,555	266,509	337,709	311,262	285,240	280,376	334,705	343,058	351,617	360,436	369,474	34,769	
Independent Business Lines Growth	12.5%	-26.1%	-2.9%	26.7%	-7.8%	-8.4%	-9.9%	19.4%	2.5%	2.5%	2.5%	2.5%	10.4%	5.9%
University	3,358,886	3,417,849	3,465,080	3,458,676	3,437,015	3,528,585	3,737,481	3,745,417	3,893,366	4,053,261	4,184,079	4,309,696	564,279	
University Growth	3.8%	1.8%	1.4%	-0.2%	-0.6%	2.7%	8.7%	0.2%	4.0%	4.1%	3.2%	3.0%	15.1%	2.9%

Includes unrealized gains

University Revenue: by Campus

\$ in Thousands	Actual					Budget	Q1 Projection	Forecast					Change FY23-27	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Cumulative	Avg. Annual
Amherst	1,216,054	1,276,643	1,341,052	1,328,911	1,242,326	1,416,076	1,489,533	1,481,522	1,530,577	1,585,606	1,637,368	1,684,254	202,732	
Amherst Growth	3.5%	5.0%	5.0%	-0.9%	-6.5%	14.0%	19.9%	-0.5%	3.3%	3.6%	3.3%	2.9%	13.7%	2.5%
Boston	423,334	426,589	436,467	443,615	468,123	480,622	480,418	464,327	478,413	491,255	503,842	515,136	50,809	
Boston Growth	4.2%	0.8%	2.3%	1.6%	5.5%	2.7%	2.6%	-3.3%	3.0%	2.7%	2.6%	2.2%	10.9%	1.4%
Dartmouth	248,385	250,628	256,592	251,446	241,240	264,661	263,643	260,491	261,421	271,635	282,138	291,601	31,110	
Dartmouth Growth	2.9%	0.9%	2.4%	-2.0%	-4.1%	9.7%	9.3%	-1.2%	0.4%	3.9%	3.9%	3.4%	11.9%	2.1%
Lowell	439,843	459,042	484,770	480,120	474,927	511,316	523,616	521,905	548,453	568,803	587,490	607,428	85,523	
Lowell Growth	5.1%	4.4%	5.6%	-1.0%	-1.1%	7.7%	10.3%	-0.3%	5.1%	3.7%	3.3%	3.4%	16.4%	3.0%
President's Office	117,659	119,219	124,478	115,679	99,273	105,066	103,144	105,263	108,218	111,300	114,358	118,462	13,199	
President's Office Growth	9.3%	1.3%	4.4%	-7.1%	-14.2%	5.8%	3.9%	2.1%	2.8%	2.8%	2.7%	3.6%	12.5%	2.8%
Chan Medical School	991,957	965,654	903,377	921,572	991,322	982,332	958,784	995,199	1,051,240	1,111,318	1,147,270	1,182,971	187,772	
Medical School Growth	2.9%	-2.7%	-6.4%	2.0%	7.6%	-0.9%	-3.3%	3.8%	5.6%	5.7%	3.2%	3.1%	18.9%	4.3%
University	3,437,232	3,497,775	3,546,736	3,541,343	3,517,211	3,760,073	3,737,481	3,745,417	3,893,366	4,053,261	4,184,079	4,309,696	571,145	
University Growth	3.6%	1.7%	1.4%	-0.2%	-0.7%	6.9%	6.3%	0.2%	3.8%	3.9%	3.1%	2.9%	15.1%	2.8%

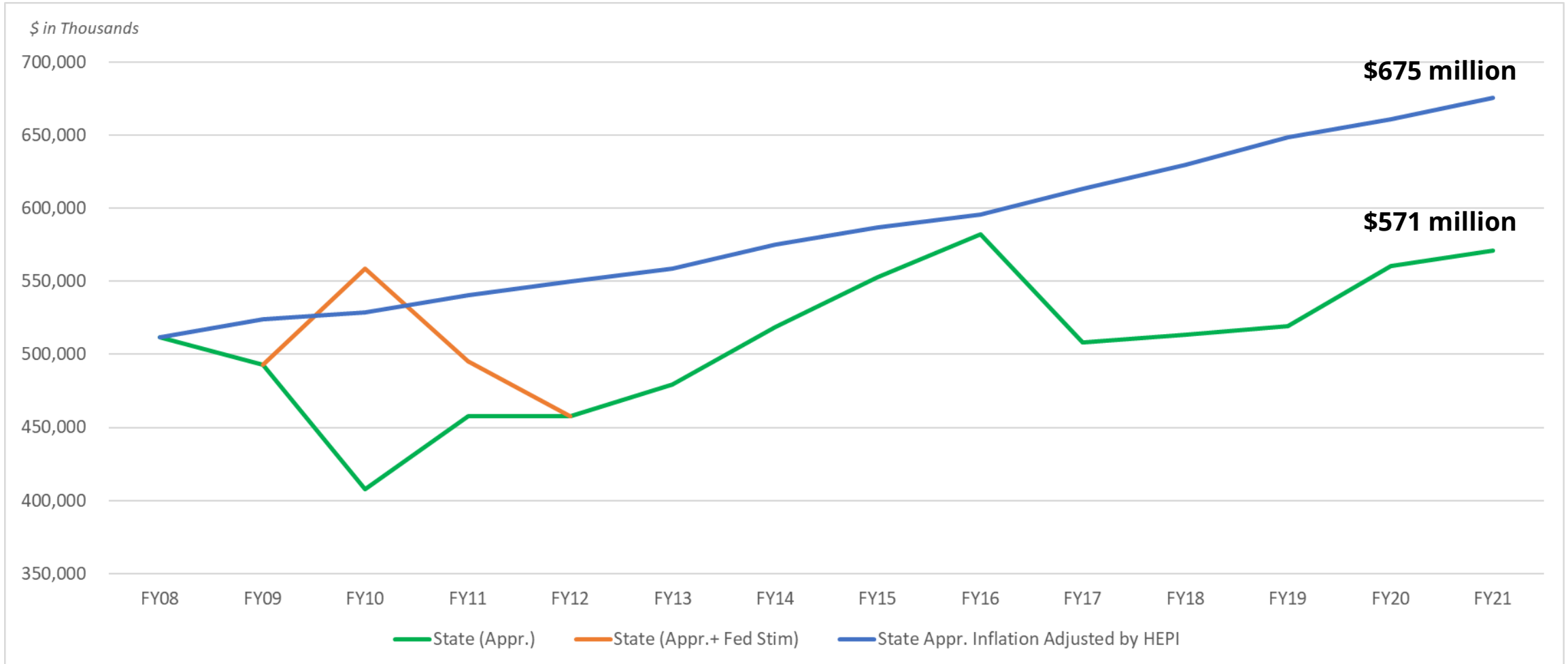
Includes unrealized gains

State Appropriation



State Appropriation Trend

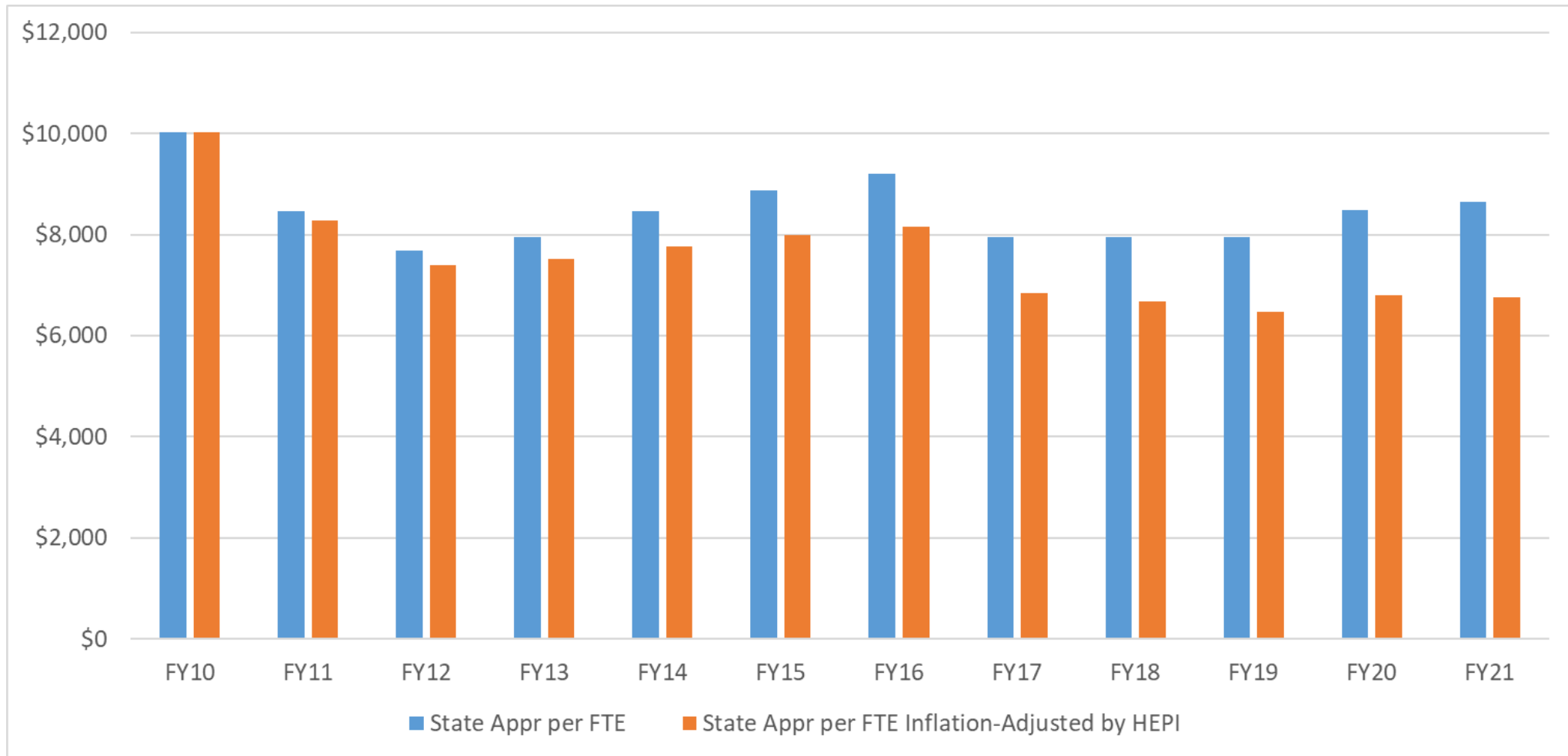
State support for UMass has not kept pace with inflation.



Does not include state supported fringe.

State Appropriation per Total Student FTE

State support per student FTE has declined 13.7% from \$10,021 in FY10 to \$8,645 in FY21, even without adjusting for inflation.



State Revenue vs. Net Tuition & Fee Revenue

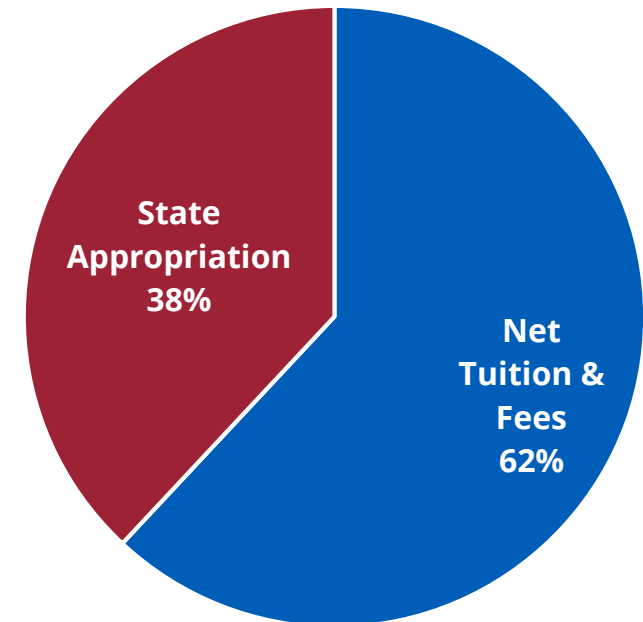
- Revenue that supports student education is generated by students and the State
- Students pay the majority share at 62%; 38% funded by State

(\$ in Thousands)

Revenues	Actual				
	FY2017	FY2018	FY2019	FY2020	FY2021
Net Tuition & Fees	847,832	874,826	894,904	917,297	930,614
% of Total	62.5%	63.0%	63.3%	62.1%	62.0%
State Appropriation*	508,292	513,545	519,167	560,455	571,195
% of Total	37.5%	37.0%	36.7%	37.9%	38.0%
Total	1,356,124	1,388,371	1,414,071	1,477,752	1,501,809

*Does not include fringe.

Note: State appropriations, including fringe, make up 23% of total University revenue.

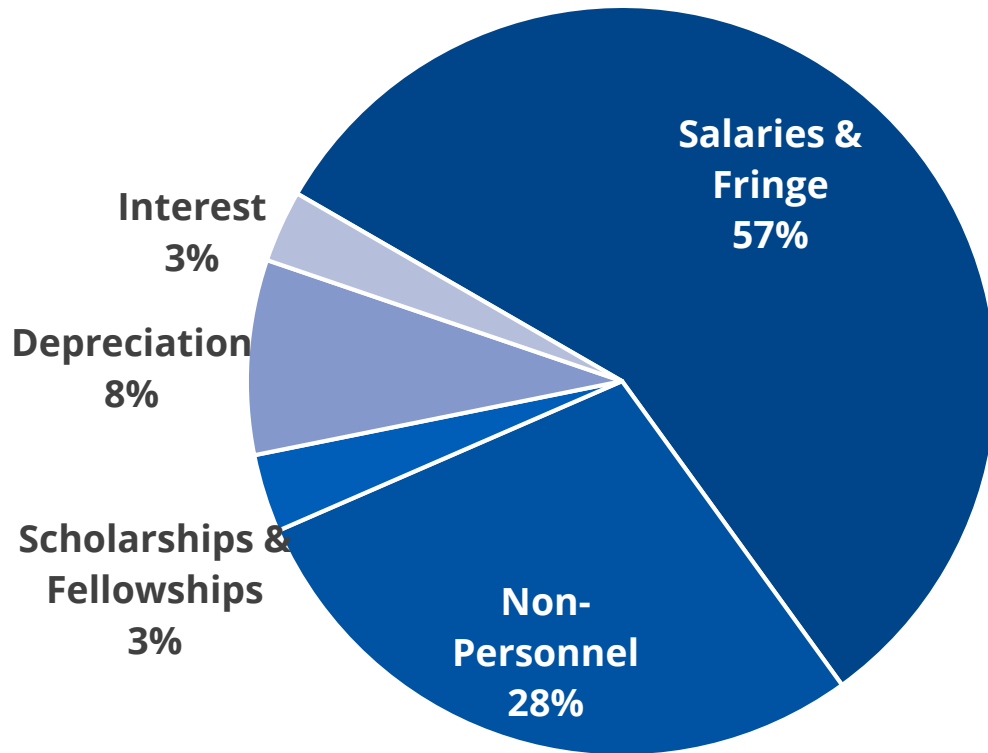


Expenses

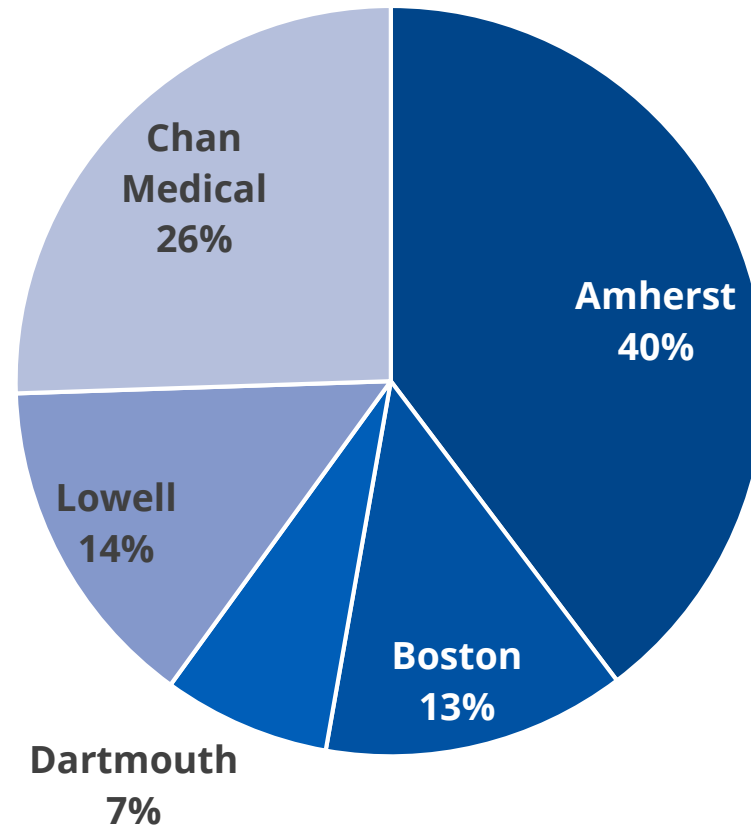


University Expenses: by Category & Campus

FY22 Expense Categories = \$3.7 billion



FY22 Campus Expenses



University Expenses: Annual Changes

Expenses grow on average 2.7% over the forecast period.

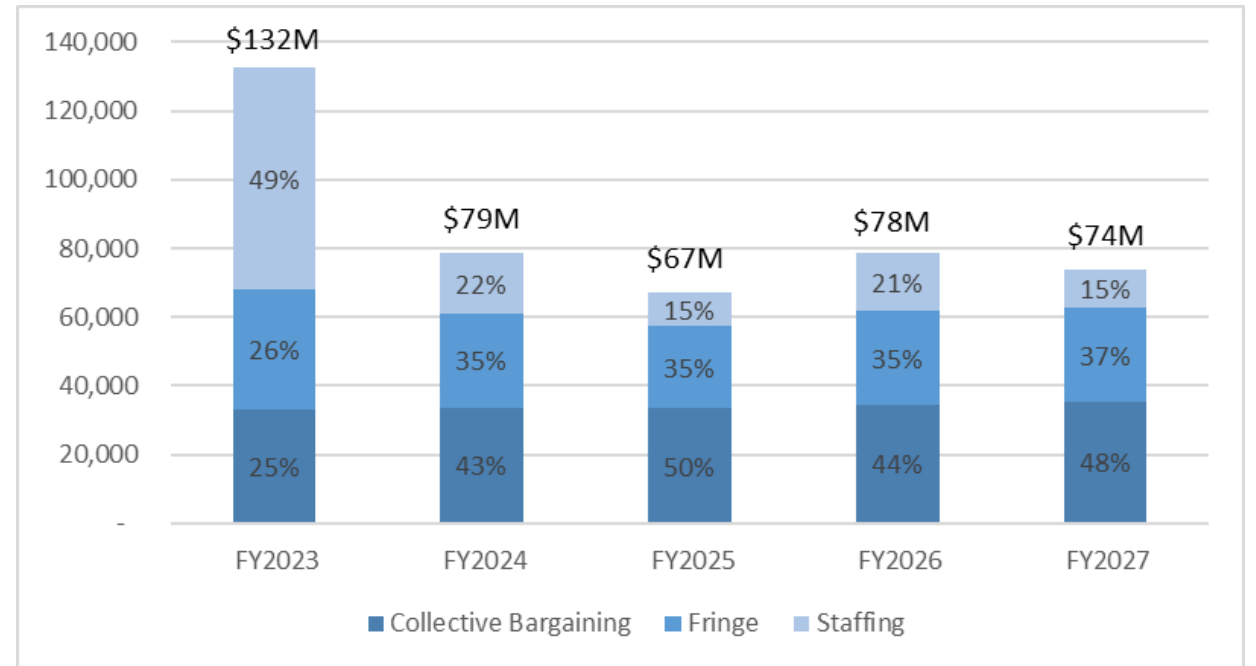


Salaries & Fringe

- Key Takeaways:** 76% of growth driven by collective bargaining and fringe with remainder driven by staffing increases; FY23 driven by UMass Chan Medical School grants and independent business lines (offset by revenue growth)
- Collective Bargaining:** 2% annual increases; total annual cost of a 2% increase is \$32M of which state reimburses 40%
- Fringe Benefits Rate:** on average 42% applied to salaries; rate grows annually by historical average of 2%
- Workforce:** staffing grows on average 1% over the forecast period

<u>FY22 Projection</u>	<u>Avg % Expense</u>	<u>AAGR</u>
Total: \$2.1B	FY17-20: 58	FY17-20: 4.1
Salaries 1.6B; Fringe 0.5B	FY21-22: 58	FY21-22: 0.0
% of Exp: 57	FY23-27: 60	FY23-27: 3.8

Growth in Salaries & Fringe Expense:



Collective Bargaining

- Current contract period FY21-FY23; assumed 2% increases over the forecast
- Administration (through the Office of Employee Relations) establishes “parameters” – in the form of salary increase percentages
- Salaries are recurring, the cumulative impact must be funded in future budgets
- State reimburses ~40% of total costs

\$ in Millions

Total Cost (estimate)	FY21 (1.5% 1-time)	FY21 (2.5%)	FY22 (2%)	FY23 (2%)	Total
1-time only	24.5	-	-	-	24.5
Base increase	-	38.2	38.2	38.2	114.7
Base increase	-	-	32.4	32.4	64.8
Base increase	-	-	-	33.7	33.7
Total	24.5	38.2	70.6	104.3	238.2

State Funding					
1-time only	9.7	-	-	-	-
Base increase	-	15.3	15.3	15.3	46.0
Base increase	-	-	12.8	12.8	25.6
Base increase	-	-	-	13.0	13.0
Total	9.7	15.3	28.2	41.2	94.4
<i>% of Total Cost</i>	<i>40%</i>	<i>40%</i>	<i>40%</i>	<i>40%</i>	<i>40%</i>

Net University Cost	14.8	22.9	42.5	63.1	143.8
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Staffing

Faculty & staff of 15,008 grows on average 1% over the forecast period.

General Operations: 69% of total employees; faculty & staff that support general university operations	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		10,308	38%	62%
	FY17-20:	1.0	2.0	0.5
	FY21-22:	-1.0	-0.8	-1.5
	FY23-27:	1.0	0.3	0.9
Auxiliary / Independent Business Lines: 19% of total employees; Housing & dining along with MassBiologics & Commonwealth Medicine	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		2,841	0%	100%
	FY17-20:	6.0	0.0	6.0
	FY21-22:	0.0	0.0	-0.3
	FY23-27:	0.0	0.0	0.4
Restricted: 12% of total employees; faculty & staff funded by grant & endowed funds	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		1,858	18%	82%
	FY17-20:	6.0	5.2	6.0
	FY21-22:	-1.0	1.7	-2.0
	FY23-27:	0.0	-0.1	0.6

Other Expense Categories

- **Non-Personnel:** utilities, supplies, contracted services, travel and other business related expenses

<u>FY22 Projection</u>	<u>Avg % Expense</u>	<u>AAGR</u>
Total: \$1.0B	FY17-20: 30	FY17-20: -1.6
% of Exp: 28	FY21-22: 27	FY21-22: 3.9
	FY23-27: 27	FY23-27: 1.8

- **Depreciation:** depreciation of plant, property, and equipment, depletion, and amortization of assets acquired by capital lease

<u>FY22 Projection</u>	<u>Avg % Expense</u>	<u>AAGR</u>
Total: \$310M	FY17-20: 8	FY17-20: 4.6
% of Exp: 8	FY21-22: 9	FY21-22: 3.6
	FY23-27: 9	FY23-27: 2.8

- **Interest:** related to debt issued through the UMass Building Authority and other sources

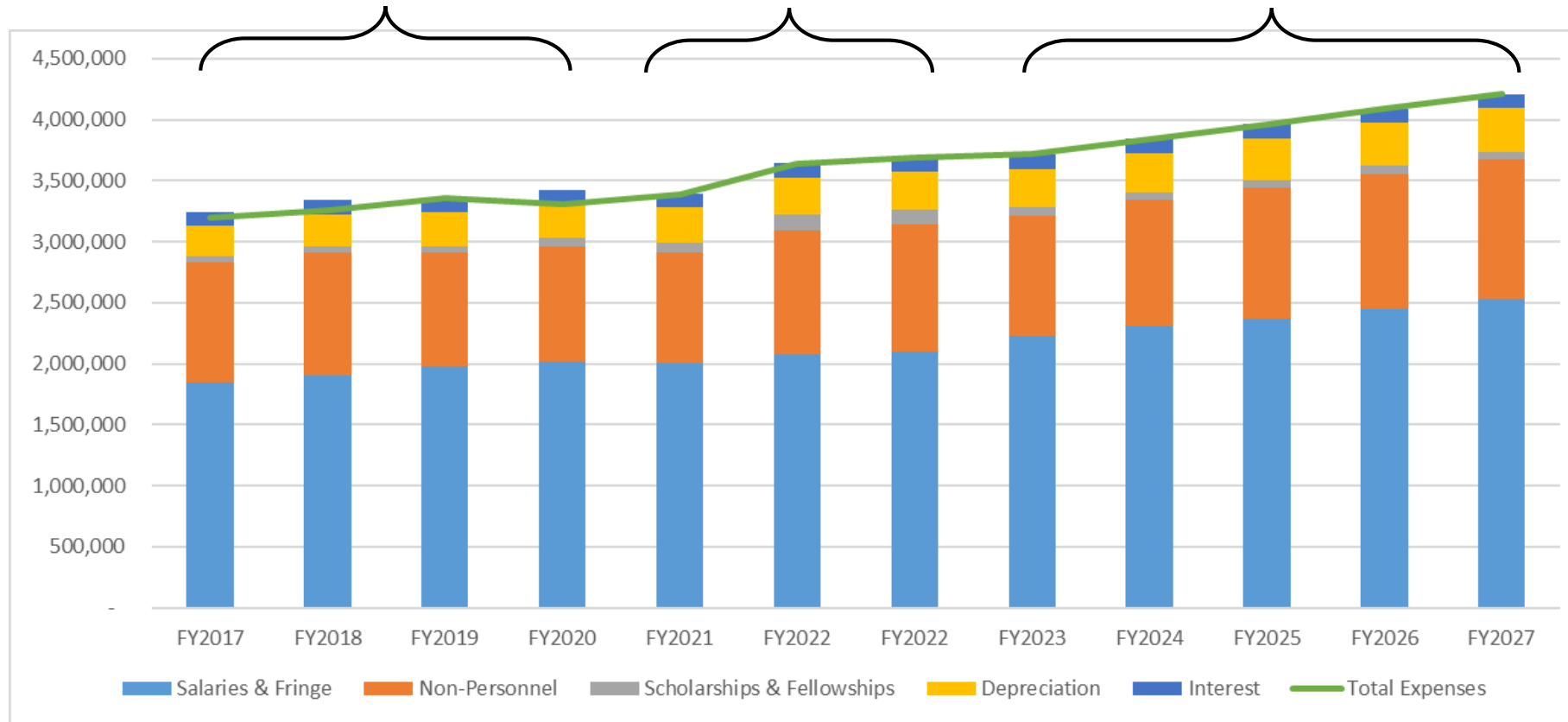
<u>FY22 Projection</u>	<u>Avg % Expense</u>	<u>AAGR</u>
Total: \$115M	FY17-20: 3	FY17-20: 1.0
% of Exp: 3	FY21-22: 3	FY21-22: 2.6
	FY23-27: 3	FY23-27: -0.1

University Expenses: Expense Drivers

Average Annual Growth FY17-20:
\$23.0 million or 0.7%

Average Annual Growth FY20-22:
\$193.7 million or 5.7%

Average Annual Growth FY23-27:
\$113.2 million or 2.7%



Excludes impact of GASB 68 & 75;

University Expenses: by Expense Category

\$ in Thousands	Actual					Budget	Q1 Projection	Forecast					Change FY23-27	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Cumulative	Avg. Annual
Salaries & Fringe	1,847,346	1,901,896	1,970,869	2,096,087	2,008,909	2,079,739	2,093,270	2,225,760	2,304,397	2,371,508	2,449,993	2,523,892	298,132	
<i>Salaries & Fringe Growth</i>	3.3%	3.0%	3.6%	6.4%	-4.2%	3.5%	4.2%	6.3%	3.5%	2.9%	3.3%	3.0%	13.4%	3.8%
Non-Personnel	1,018,600	1,088,019	943,685	987,219	897,115	1,014,610	1,048,950	990,578	1,033,663	1,068,505	1,106,554	1,145,571	154,993	
<i>Non-personnel Growth</i>	-4.6%	6.8%	-13.3%	4.6%	-9.1%	13.1%	16.9%	-5.6%	4.3%	3.4%	3.6%	3.5%	15.6%	1.8%
Scholarships & Fellowships	47,706	50,402	49,507	65,469	80,024	124,442	124,358	60,559	60,841	63,173	65,425	67,574	7,015	
<i>Scholarships & fellowships Growth</i>	6.9%	5.7%	-1.8%	32.2%	22.2%	55.5%	55.4%	-51.3%	0.5%	3.8%	3.6%	3.3%	11.6%	-8.0%
Depreciation	249,669	261,417	276,638	288,667	300,201	308,185	309,945	319,341	328,972	343,782	348,869	355,335	35,994	
<i>Depreciation Growth</i>	3.7%	4.7%	5.8%	4.3%	4.0%	2.7%	3.2%	3.0%	3.0%	4.5%	1.5%	1.9%	11.3%	2.8%
Interest	110,069	115,851	116,217	109,186	105,468	113,103	114,544	118,484	116,407	116,200	116,184	113,807	(4,677)	
<i>Interest Growth</i>	4.6%	5.3%	0.3%	-6.0%	-3.4%	7.2%	8.6%	3.4%	-1.8%	-0.2%	-0.0%	-2.0%	-3.9%	-0.1%
University	3,237,351	3,336,260	3,356,916	3,424,616	3,391,718	3,640,079	3,691,067	3,714,722	3,844,280	3,963,169	4,087,025	4,206,180	491,457	
<i>University Growth</i>	0.8%	3.1%	0.6%	2.0%	-1.0%	7.3%	8.8%	0.6%	3.5%	3.1%	3.1%	2.9%	13.2%	2.7%

Excludes impact of GASB 68 & 75

Expenses: by Campus

\$ in Thousands	Actual					Budget	Q1 Projection	Forecast					Change FY23-27	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Cumulative	Avg. Annual
Amherst	1,173,095	1,241,490	1,296,841	1,329,105	1,265,323	1,400,661	1,458,822	1,475,251	1,516,957	1,548,835	1,599,858	1,644,848	169,597	
<i>Amherst Growth</i>	3.9%	5.8%	4.5%	2.5%	-4.8%	10.7%	15.3%	1.1%	2.8%	2.1%	3.3%	2.8%	11.5%	2.4%
Boston	424,463	424,202	430,967	438,957	442,992	474,138	480,418	464,327	473,831	481,430	489,574	497,713	33,386	
<i>Boston Growth</i>	3.0%	-0.1%	1.6%	1.9%	0.9%	7.0%	8.4%	-3.3%	2.0%	1.6%	1.7%	1.7%	7.2%	0.7%
Dartmouth	238,763	250,270	255,118	251,450	240,186	264,661	263,643	260,471	261,140	266,123	276,442	285,712	25,241	
<i>Dartmouth Growth</i>	1.1%	4.8%	1.9%	-1.4%	-4.5%	10.2%	9.8%	-1.2%	0.3%	1.9%	3.9%	3.4%	9.7%	1.6%
Lowell	428,306	451,552	476,652	483,244	463,883	520,147	532,432	521,833	543,159	557,703	576,011	595,542	73,709	
<i>Lowell Growth</i>	2.5%	5.4%	5.6%	1.4%	-4.0%	12.1%	14.8%	-2.0%	4.1%	2.7%	3.3%	3.4%	14.1%	2.3%
President's Office	108,938	106,776	111,963	112,583	91,806	101,641	99,718	103,090	105,948	108,989	111,983	115,909	12,819	
<i>President's Office Growth</i>	4.0%	-2.0%	4.9%	0.6%	-18.5%	10.7%	8.6%	3.4%	2.8%	2.9%	2.7%	3.5%	12.4%	3.1%
Chan Medical School	942,132	943,144	867,033	891,942	967,724	960,489	937,690	973,040	1,028,201	1,086,745	1,121,545	1,156,611	183,571	
<i>Medical School Growth</i>	-4.6%	0.1%	-8.1%	2.9%	8.5%	-0.7%	-3.1%	3.8%	5.7%	5.7%	3.2%	3.1%	18.9%	4.3%
University	3,237,351	3,336,260	3,356,916	3,424,616	3,391,718	3,640,079	3,691,067	3,714,722	3,844,280	3,963,169	4,087,025	4,206,180	491,457	
<i>University Growth</i>	0.8%	3.1%	0.6%	2.0%	-1.0%	7.3%	8.8%	0.6%	3.5%	3.1%	3.1%	2.9%	13.2%	2.7%

University: Revenue & Expenses

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY23-27	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Cumulative	Avg. Annual
Gross Tuition & Fees	1,136,540	1,186,773	1,223,734	1,260,327	1,275,742	1,279,182	1,269,024	1,323,971	1,368,279	1,424,353	1,483,771	1,537,506	16.1%	3.9%
Tuition Discounts	(288,708)	(311,947)	(328,830)	(343,030)	(345,128)	(371,518)	(362,416)	(376,824)	(389,728)	(404,951)	(422,189)	(438,957)	16.5%	3.9%
Discount Rate	25.4%	26.3%	26.9%	27.2%	27.1%	29.0%	28.6%	28.5%	28.5%	28.4%	28.5%	28.5%	0.3%	-0.0%
Net Tuition & Fees	847,832	874,826	894,904	917,297	930,614	907,664	906,608	947,147	978,551	1,019,401	1,061,582	1,098,550	16.0%	3.9%
Grants	560,081	560,990	593,086	581,372	667,148	631,956	632,039	676,170	722,313	775,019	802,777	831,538	23.0%	5.7%
Sales & Service, Educational	28,910	30,591	34,985	31,248	30,253	33,087	33,963	36,573	37,533	38,534	39,577	40,662	11.2%	3.7%
Auxiliary Enterprises	400,822	416,733	441,795	378,314	163,811	392,819	427,115	455,352	471,785	485,021	499,733	512,334	12.5%	3.7%
Other Operating	233,717	311,119	222,074	238,188	199,854	240,548	239,262	184,010	188,322	194,072	198,739	202,080	9.8%	-2.7%
State Appropriations	720,817	751,894	780,222	810,518	845,482	840,544	872,295	896,416	921,009	946,577	971,590	998,078	11.3%	2.7%
Other NonOperating	195,089	197,142	231,504	222,129	288,591	346,557	345,822	215,044	230,795	243,021	249,646	256,980	19.5%	-3.9%
Independent Business	371,618	274,555	266,509	280,620	311,262	285,240	280,376	334,705	343,058	351,617	360,436	369,474	10.4%	5.9%
Total Revenues	3,358,886	3,417,850	3,465,079	3,459,686	3,437,015	3,678,416	3,737,481	3,745,417	3,893,366	4,053,261	4,184,079	4,309,696	15.1%	2.9%
% Growth	3.8%	1.8%	1.4%	-0.2%	-0.7%	7.0%	8.7%	0.2%	4.0%	4.1%	3.2%	3.0%		
Expenses														
Salaries & Fringe	1,847,346	1,901,896	1,970,869	2,012,669	2,008,909	2,079,739	2,093,270	2,225,760	2,304,397	2,371,508	2,449,993	2,523,892	13.4%	3.8%
Non-Personnel	982,566	1,007,943	943,685	949,638	897,115	1,014,610	1,048,950	990,578	1,033,663	1,068,505	1,106,554	1,145,571	15.6%	1.8%
Scholarships & Fellowships	47,701	50,402	49,507	65,464	80,024	124,442	124,358	60,559	60,841	63,173	65,425	67,574	11.6%	-8.0%
Depreciation	249,669	261,417	276,638	288,667	300,201	308,185	309,945	319,341	328,972	343,782	348,869	355,335	11.3%	2.8%
Interest	110,069	115,851	116,217	109,186	105,468	113,103	114,544	118,484	116,407	116,200	116,184	113,807	-3.9%	-0.1%
Total Expenses	3,237,351	3,336,260	3,356,916	3,424,616	3,391,718	3,640,079	3,691,067	3,714,722	3,844,280	3,963,169	4,087,025	4,206,180	13.2%	2.7%
% Growth	0.8%	3.1%	0.6%	2.0%	-1.0%	7.3%	8.8%	0.6%	3.5%	3.1%	3.1%	2.9%		
Operating Margin														
UMass OM Calc Revenues	3,326,336	3,416,188	3,449,697	3,462,090	3,459,992	3,670,552	3,729,617	3,737,211	3,885,254	4,045,245	4,175,993	4,301,451		
Total Expenses	3,237,351	3,336,260	3,356,916	3,424,616	3,391,716	3,640,079	3,691,067	3,714,722	3,844,280	3,963,169	4,087,025	4,206,180		
Surplus / (Deficit)	88,985	79,928	92,781	37,474	68,276	30,472	38,551	22,489	40,974	82,076	88,969	95,272		
UMass OM Calc	2.7%	2.3%	2.7%	1.1%	2.0%	0.8%	1.0%	0.6%	1.1%	2.0%	2.1%	2.2%		

Forecast Borrowing Plan

- Capital Plan approved in September plus additional December projects are included
- Typically issue debt every 2 years; timing & structuring developed by UMBA in consultation with the President's Office and the campuses
- UMBA uses Commercial Paper (CP) to support project spending in advance of debt issuance
- Borrowing needed to fully implement capital plan is expected to be issued as follows:

(\$ in Thousands)

Campus	Project Name	FY2022 Issuance	FY2024 Issuance	FY2026 Issuance	Future Issuance
Amherst	School of Public Health and Health Sciences Renovation	-	-	25,000	-
Amherst	Goodell Renovation	-	30,000	-	-
Amherst	North Village Apartments	47,500	-	-	-
Amherst	Engineering Building	-	-	80,000	-
Amherst	Computer Science Building	-	-	30,000	-
Amherst	Housing Renovations	-	-	50,000	50,000
Boston	SQDQ & REAB	-	-	-	-
Dartmouth	SENG - Building System Project	20,629	-	-	-
Lowell	Ball Hall Comprehensive Renewal Phase I (Infrastructure & Envelope)	-	-	15,000	-
Lowell	Olney Project A - Instructional Modernization	-	25,000	-	-
Lowell	Weed Hall Renewal Phase I (includes NIH Grant Project Scope)	-	-	17,000	-
Chan Medical	New Education and Research Facility	325,000	-	-	-
TOTAL		\$393,129	\$55,000	\$217,000	\$50,000

Non-Instructional Administrative Costs Defined



INSTITUTIONAL SUPPORT

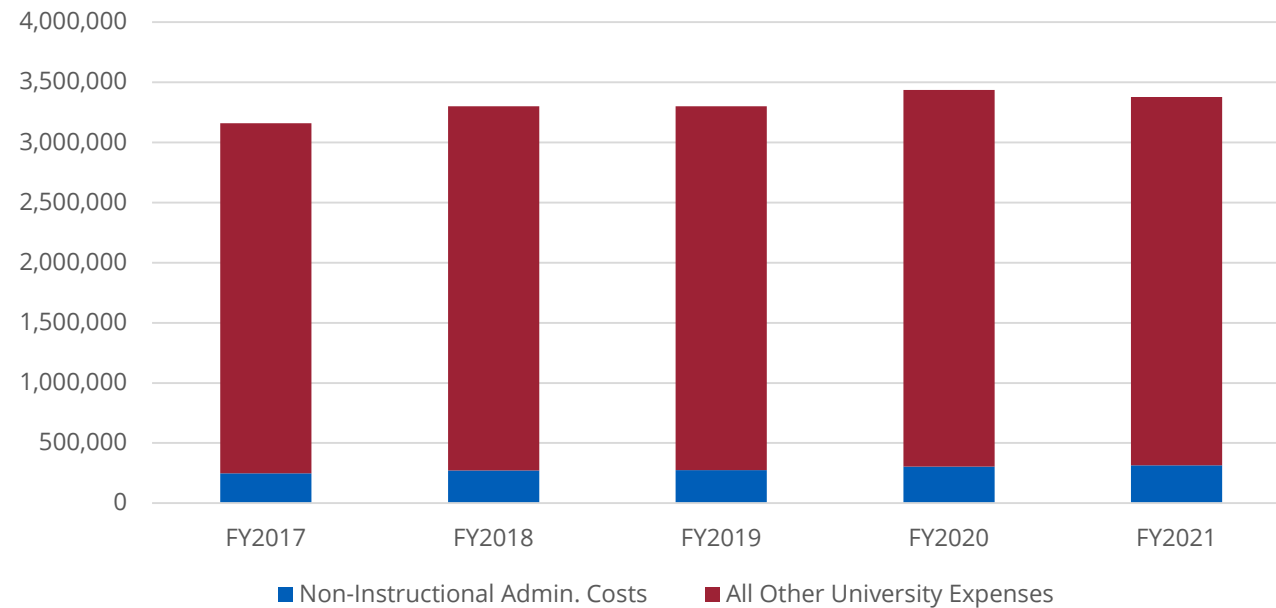
Supporting the day-to-day operations of the institution, including general administration, management and long-range planning, legal and fiscal operations, space management, human resources, logistics, and public relations (in the form of communications and marketing to support enrollment growth).

SOURCE: National Center for Education Statistics Integrated Postsecondary Education Data System (IPEDS)

Non-Instructional Administrative Costs: 2017-2021

Non-instructional administrative costs are 9.3% of overall university expenses in FY2021.

Dollars in thousands



- Increases in FY20 and FY21 are largely attributed to COVID response, including:
 - Retirement incentive programs to reduce payroll expenses
 - Emergency costs related to lab services and supplies
 - Employee health clinic operations

<i>Dollars in thousands</i>	FY2017	FY2018	FY2019	FY2020	FY2021
Non-Instructional Admin. Costs	247,740	271,535	274,326	303,100	314,676
Percent of Total Costs	7.8%	8.2%	8.3%	8.8%	9.3%

SOURCE: UMass audited financial statements

Salaries & Payroll Defined

- Salaries/Payroll expenses are shown by both fiscal year and calendar year.
 - Generally salary and fringe expense is shown by fiscal year
 - The breakdown of base pay, performance incentive pay, and other types of pay are shown by calendar year
 - When shown by **Fiscal Year**, the title will be **blue**. When shown by **Calendar Year**, the title will be **green**.
- Why show both?
 - Showing certain payroll expenses by calendar year allows for easy comparison using publicly available tools such as CTHRU.
 - Additionally, Calendar Year is the typical way in which employees and the public think about payroll – as tax documents like W2's are calculated January – December.
- Staff type is presented based upon federally-designated categories reported across campuses and other universities and is consistent with other reports generated by the University.

Overview of State-Mandated Fringe Benefit Rate

The fringe rate assessed to UMass is based on total payroll cost and does not reflect actual costs incurred by UMass.

- Nearly all UMass employees are State employees and are afforded both state health insurance and retirement benefits.
- The cost of these benefits are assessed to the University using a methodology and fringe rate set by the Commonwealth - the current rate (39.43%) has increased by 36% since FY2011.
- The entire state appropriation (\$571M) is used to fund payroll at UMass. The related fringe expense for these employees is picked up by the State.
- However, the state only covers 35% the University's total payroll costs (41% with its share of fringe) leaving UMass to cover the rest from its own resources – primarily tuition and fees.

Salaries & Fringe by Fiscal Year

The entire state appropriation, \$571 million, is used to fund payroll which only covers 35% of the University's total payroll costs (41% when you factor fringe).

(\$ in Thousands)

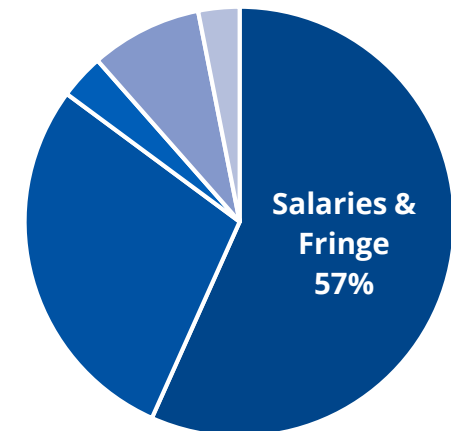
Actual

	FY2017	FY2018	FY2019	FY2020	FY2021
Salaries	1,518,046	1,543,796	1,587,269	1,712,549	1,643,982
Fringe	329,300	358,100	383,600	383,538	364,927

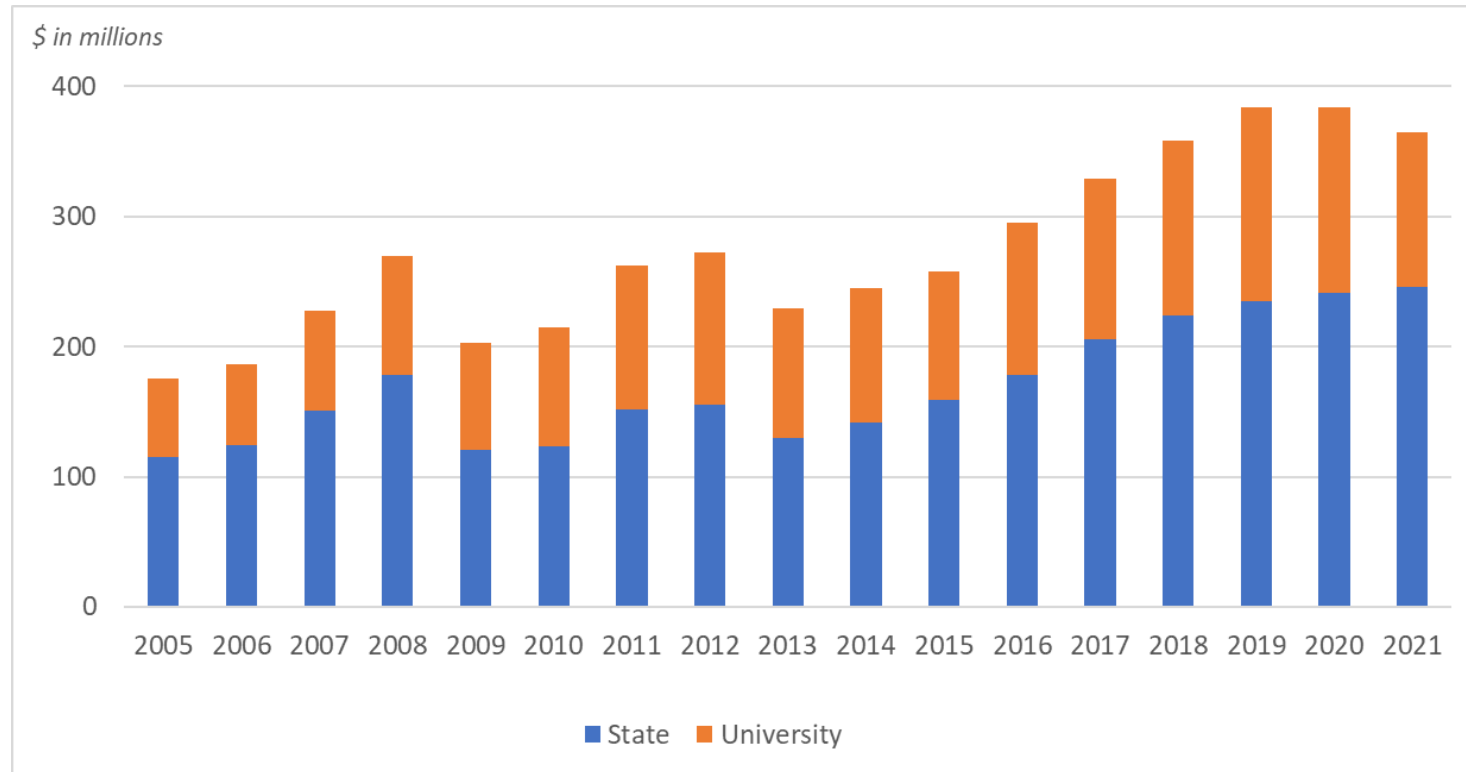
Total University Payroll - FY21

<i>(\$ in Thousands)</i>	Total	University	State
Union Payroll	978,854	407,659	571,195
Non Union Payroll	665,128	665,128	
Fringe	364,927	119,306	245,621
Total	2,008,909	1,192,093	816,816
<i>% of Total</i>		59%	41%

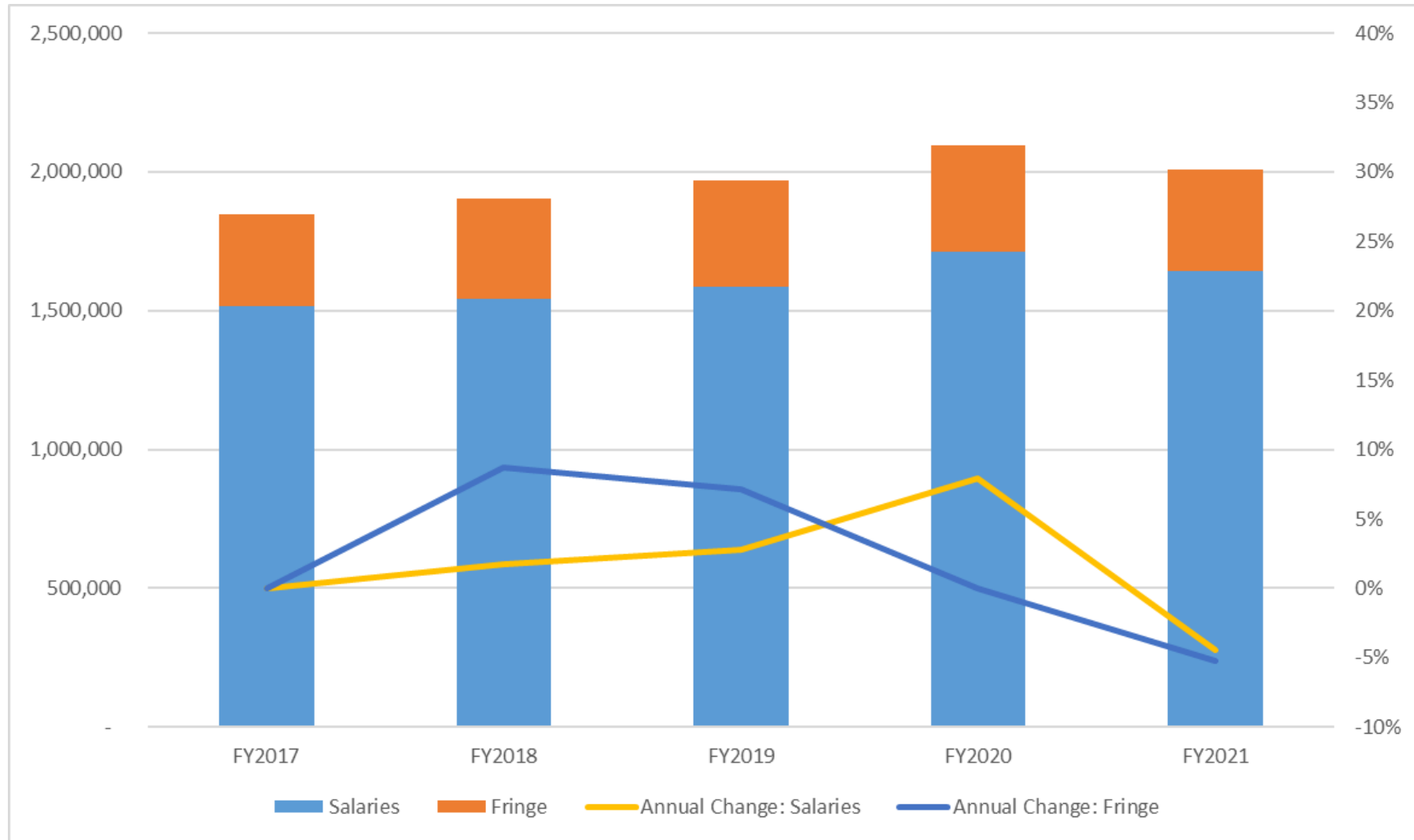
Total University Expenses
(\$3.7 billion at FY22 Q1 Proj.)



Fringe Benefits by Fiscal Year



Salaries & Fringe by Fiscal Year



Fiscal Year 2021 vs. Calendar Year 2021

Showing both fiscal year and calendar year views of payroll data presents the most complete and accurate display of UMass payroll.

Fiscal Year 2021 Salaries:

\$1.6 billion

Calendar Year 2021 Salaries:

\$1.5 billion

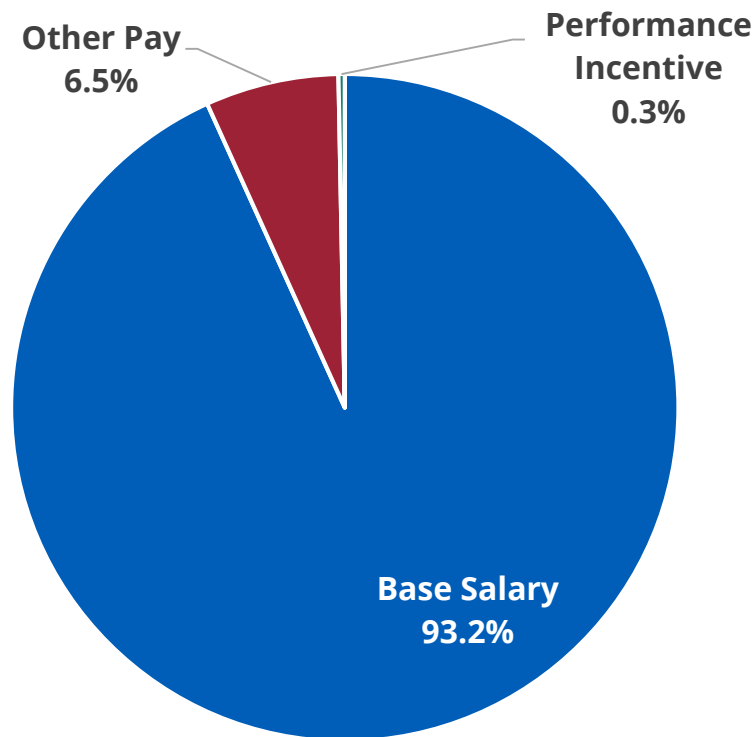
Why the difference?

- The six month difference between fiscal year end and calendar year end creates variation
- Calendar year payroll excludes certain categories to conform with CTHRU – the Commonwealth’s transparency website
 - As an example, all student payroll is excluded from CTHRU for student privacy

Calendar Year 2021 Payroll by Type of Pay

Annually, only three tenths of one percent of total compensation (\$1.46 billion) goes to performance incentive pay.

CY2021 Payroll by Type of Pay



- Base pay accounts for 93% of UMass payroll
- Other pay includes compensation to faculty members for teaching additional courses, particularly in the summer, and taking on additional responsibilities per collective bargaining agreements (58%); overtime (14%); and payments made at separation (11%).

Total Compensation Including Performance Incentive Pay

Performance payments are thoroughly vetted using industry and corporate best practices and total only one quarter of one percent of total compensation.

- UMass works with national consulting firms (Sibson, Korn Ferry, and Pearl Meyer) that specialize in higher education and medical centers to review executive compensation and how it impacts goal of attracting and retaining executive leadership
- Specific and measureable results are required for any incentive to be earned; putting compensation at risk if goals are not met.
- In 2021, 64% of the performance incentive payments were earned at the UMass Chan Medical School consistent with the total compensation reward program

Calendar Year Payroll by Type of Pay

Base pay accounts for 93% of UMass payroll. Payroll by type of pay has remained consistent over time.

Total University Payroll

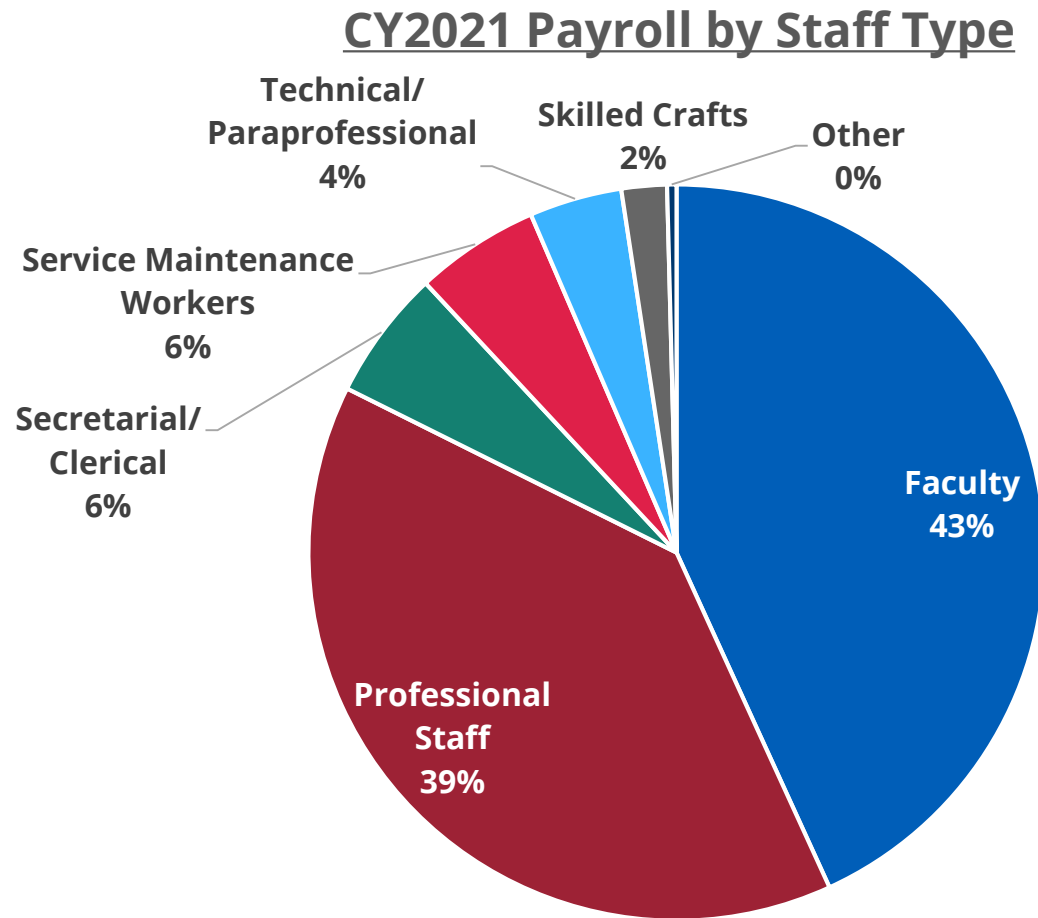
<i>\$ in Thousands</i>	2017	2018	2019	2020	2021
Base Pay	1,300,035	1,329,888	1,380,743	1,343,982	1,362,979
	94.3%	94.2%	94.3%	93.6%	93.2%
Other Pay	75,052	78,099	80,502	87,783	94,474
	5.4%	5.5%	5.5%	6.1%	6.5%
Performance Incentive	3,890	3,091	3,679	3,668	4,449
	0.3%	0.2%	0.3%	0.3%	0.3%
Total	1,378,978	1,411,078	1,464,924	1,435,434	1,461,902
	100.0%	100.0%	100.0%	100.0%	100.0%

Data based on calendar year.

Note: increases in “other pay” in 2020 and 2021 are largely related to voluntary separation incentive payments (VSIP) – a pandemic-related strategy to reduce payroll costs.

Calendar Year 2021 Payroll by Staff Type

In 2021, 43% of salaries went to faculty and 39% went to professional staff.



Excludes Medical School

- \$433 million in UMass Chan Medical School salaries have been excluded due to the number of staff supporting independent business lines –primarily healthcare consulting and bio-manufacturing.
- Independent business lines are distinct from educational functions and thus skew salary data of the undergraduate campuses when included.

Calendar Year Payroll by Staff Type

Faculty salaries are 43.2% in 2021 – an increase from 41% in 2017. Professional staff salaries are 39.2% in 2020 – nearly level with 2017.

Undergraduate Campuses & President's Office					
<i>\$ in Thousands</i>	2017	2018	2019	2020	2021
Faculty	413,304	426,773	440,297	444,992	444,397
<i>% of Total</i>	41.4%	41.6%	41.3%	43.3%	43.2%
Professional Staff	381,282	390,596	409,016	395,553	403,183
<i>% of Total</i>	38.2%	38.1%	38.4%	38.5%	39.2%
Service Maintenance Workers	66,397	68,353	72,477	55,189	56,197
<i>% of Total</i>	6.6%	6.7%	6.8%	5.4%	5.5%
Secretarial/Clerical	67,963	67,377	68,711	63,769	58,778
<i>% of Total</i>	6.8%	6.6%	6.5%	6.2%	5.7%
Technical/Paraprofessional	44,813	45,290	46,541	43,846	41,888
<i>% of Total</i>	4.5%	4.4%	4.4%	4.3%	4.1%
Skilled Crafts	22,635	23,896	25,021	21,191	20,528
<i>% of Total</i>	2.3%	2.3%	2.3%	2.1%	2.0%
Other	2,987	2,852	3,042	3,680	4,231
<i>% of Total</i>	0.3%	0.3%	0.3%	0.4%	0.4%
Total	999,381	1,025,136	1,065,107	1,028,220	1,029,201
<i>% of Total</i>	100.0%	100.0%	100.0%	100.0%	100.0%

Data based on calendar year.

Staffing by Type and Funding Source

Employee FTEs	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Restricted												
Faculty	272	313	318	315	312	318	325	320	321	321	322	323
Staff	1,349	1,553	1,537	1,597	1,543	1,568	1,532	1,557	1,561	1,566	1,571	1,576
Total Restricted	1,621	1,866	1,854	1,911	1,854	1,886	1,858	1,876	1,882	1,887	1,893	1,898
# Change		245	(12)	57	(57)	32	4	19	5	5	6	6
% Change		15.1%	-0.7%	3.1%	-3.0%	1.7%	0.2%	1.0%	0.3%	0.3%	0.3%	0.3%
Unrestricted General University Ops												
Faculty	3,759	3,878	3,961	3,990	3,874	3,855	3,928	3,930	3,941	3,952	3,966	3,990
Staff	6,487	6,566	6,539	6,588	6,209	6,574	6,380	6,567	6,588	6,586	6,618	6,660
Professional Staff		4,039	4,099	4,201	4,099	-	4,257	-	-	-	-	-
Secretarial/Clerical		1,119	1,087	1,050	923	-	895	-	-	-	-	-
Technical/Paraprofessional		619	614	600	567	-	565	-	-	-	-	-
Skilled Crafts		268	261	257	218	-	234	-	-	-	-	-
Service Maintenance Workers		521	479	479	402	-	429	-	-	-	-	-
Unspecified				1			-					
Total General University Ops	10,246	10,444	10,500	10,578	10,083	10,428	10,308	10,497	10,529	10,538	10,584	10,650
# Change		198	56	77	(495)	345	225	189	32	9	46	66
% Change		1.9%	0.5%	0.7%	-4.7%	3.4%	2.2%	1.8%	0.3%	0.1%	0.4%	0.6%
Unrestricted Aux./Independent Business												
Faculty	18	15	13	10	11	10	12	12	12	12	12	12
Staff	2,549	2,466	2,751	3,020	2,291	2,784	2,830	2,842	2,852	2,862	2,874	2,891
Total Aux./Independent Business	2,567	2,481	2,764	3,030	2,302	2,794	2,841	2,853	2,863	2,873	2,885	2,902
# Change		(83)	285	269	(729)	493	539	12	10	10	12	17
% Change		-3.3%	11.6%	9.8%	-24.1%	21.5%	23.5%	0.4%	0.4%	0.4%	0.4%	0.6%
Total Faculty & Staff	14,434	14,792	15,118	15,519	14,239	15,407	15,008	15,227	15,274	15,298	15,362	15,451
# Change		357	327	401	(1,280)	1,168	768	219	47	24	64	89
% Change		2.5%	2.2%	2.7%	-8.2%	8.2%	5.4%	1.5%	0.3%	0.2%	0.4%	0.6%

FY23 State Budget Request

FY23 State Budget Request

<i>\$ in Thousands</i>		FY22 GAA	FY23 Request	\$ Change	% Change
7100-0200	Baseline:	571,195	571,195		
	Collective Bargaining:				
	<i>Collective Bargaining Expenses</i>	28,159	41,192	13,033	
	Subtotal:	599,354	612,387	13,033	2.2%
	3.5% Inflation Adjustment				
	<i>To keep up with current inflation environment exceeding 5%</i>		20,979	20,979	
	Subtotal:	599,354	633,366	34,012	5.7%
	Financial Aid				
	<i>Investment in student financial aid</i>		15,000		
	Total FY23 Request:	599,354	648,366	49,012	8.2%

- Collective Bargaining – Incremental increase based on state-set parameters for three-year contract period per M.G.L. chapter 150E
- Inflation Adjustment – With the current national inflation rate projected at 5%, a 3.5% inflation adjustment helps offset costs that are not otherwise funded
- Financial Aid – Financial needs of students continue to rise, and additional resources for financial aid ensure the affordability of a UMass education

Collective Bargaining

FY23 request includes incremental increase to collective bargaining for final year of contract period.

- Administration (through the Office of Employee Relations) sets “parameters” which determines the increase to be paid over the contract period (current period FY21-FY23).
- Salaries are recurring, the cumulative impact of the contract must be funded in future budgets per M.G.L. Chapter 150E.
- Budget request includes assumed increased incremental funding for FY21 & FY22 (total of \$69M), as would be funded through separate supplemental appropriations.
- Below table is a buildup of collective bargaining incremental increases:

<i>\$ in Thousands</i>	FY22 GAA	FY22 with CB transfers to date⁽¹⁾	FY22 with CB transfers completed⁽²⁾	FY23 Request⁽³⁾	Variance
Base Appropriation	571,195	571,195	571,195	571,195	-
Collective Bargaining		3,423	28,159	41,192	13,033
Subtotal	571,195	574,618	599,354	612,387	13,033

(1) FY22 collective bargaining funding from October 2021 supplemental budget

(2) FY22 appropriation once all collective bargaining funding has been transferred to the University

(3) FY23 request seeking incremental increase for collective bargaining based on last year of contract period

Inflation Adjustment

In a high-inflation environment, UMass' costs projected to increase significantly

- Nationally, inflation is currently projected at 5%
- 5% increase in UMass' non-personnel expenses is over \$52 million
- UMass is requesting state investment to defray 40% of new, inflationary costs – consistent with how the State funds UMass collective bargaining
 - Equivalent to 3.5% of total State appropriation

<i>\$ in Thousands</i>	FY22 Projection	FY23 Planning	Notes
Non-Personnel Expenses	1,048,950	1,048,950	University projected expenses
Assumed Inflationary Increase		52,448	5% inflation growth on non-personnel
<i>FY23 Request for inflationary expenses</i>		20,979	40% of assumed inflation increase

Financial Aid

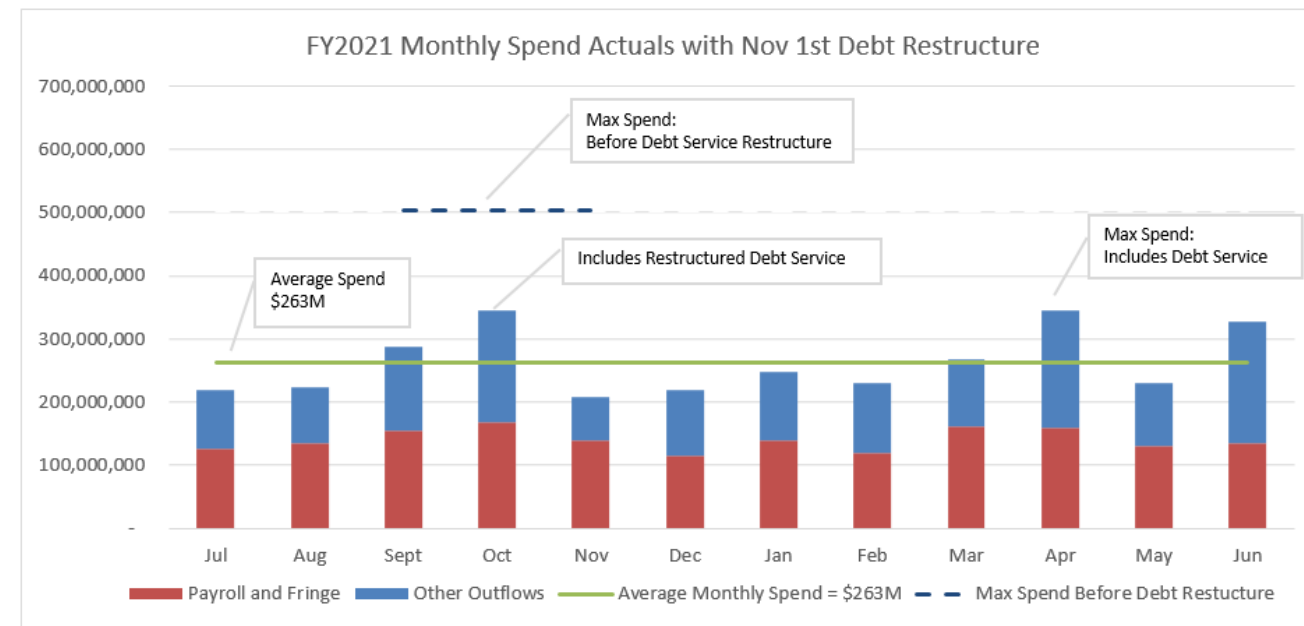
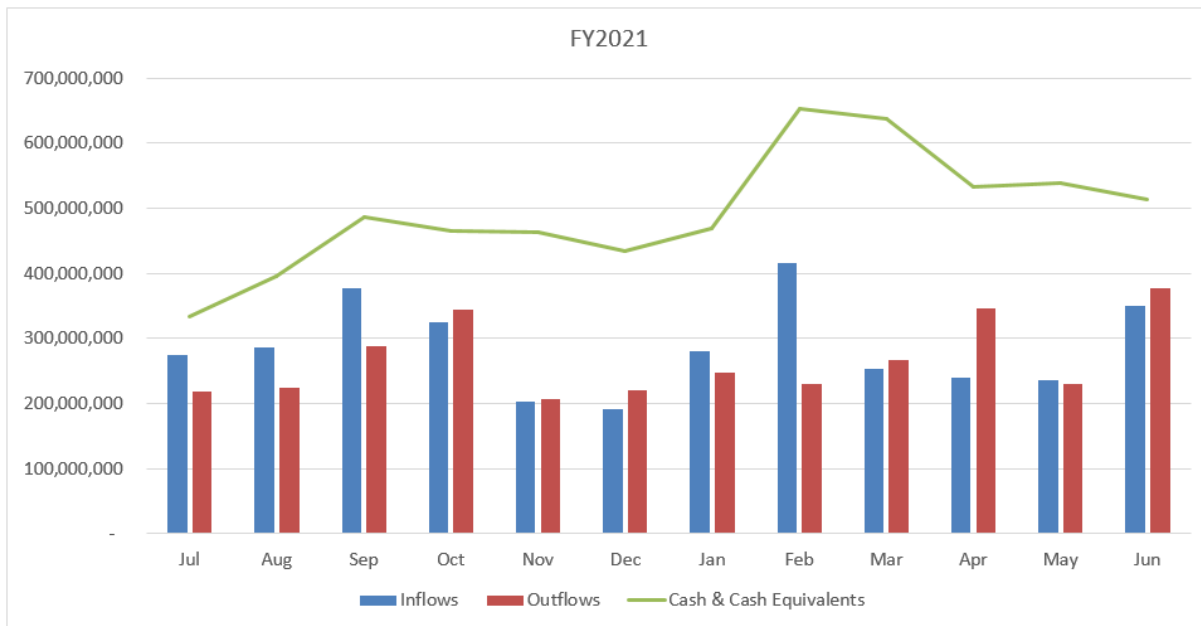
\$15 million investment in financial aid would help keep UMass education affordable

- Every year, UMass invests over \$350 million of its own resources into “free” aid to students
 - Conversely, federal aid, with the exception of Pell grants, comes in the form of loans
- On average, UMass increases its investment in financial aid by 4.5% annually
- With the current pandemic environment, student need continues to grow
- Additional investment in financial aid is critical to removing barriers to students starting or continuing their education
- UMass is requesting a \$15 million state investment to help address this growing need

Liquidity



UMass Cash Flow Insights



- Seasonality of cash flow creates periods where cash inflows and outflows are mismatched.
- Receipts strong at beginning of fall and spring semesters and low in late spring and summer.
- The above chart includes the University's restructured Nov 1st Debt Service payment of \$65M that was paid on October 27th.

- \$263 million average monthly spend
- Debt service payments create significant outflows in October and April.
- The Nov 1st Debt Service payment was restructured to allow for additional liquidity.

Line of Credit

Line of credit authority provided by the Legislature aids UMass in managing seasonal cash flows.

- On 11/10/2020, Section 2 of Chapter 75 of the Massachusetts General Laws was amended to allow the University to borrow for working capital under the conditions that:
 - Any amount borrowed shall be repaid within 365 days; and
 - The principal amount cannot exceed 8% of the total approved operating budget
- On 5/12/2021, the University closed on a \$150M revolving line of credit, with Bank of America & State Street Bank serving as lenders
- Line of credit became effective and available to the University on 6/1/2021
- When used, the line of credit addresses a mismatch between inflows and outflows occurring at different, asynchronous periods throughout the year
- In 2021, the University completed one draw of \$25M, receiving funds on 8/5/2021 and repaying them on 9/7/2021

Financial Aid





Financial Aid

What is it?

An annual report that details the funding sources, types of aid and key financial aid metrics

When do we do it?

Developed annually from January thru February and presented to the Board of Trustees in April; also included in the budget and forecast reports to the board

What is included?

- ✓ Sources and categories of financial aid
- ✓ University investment in need and merit based programs
- ✓ Student debt
- ✓ Net price based on the cost of attendance minus all free sources of aid

Why do we do it?

- ✓ To quantify the amount of financial aid provided to our students from all sources
- ✓ To highlight the University's significant investment; particularly as the largest source of "free" aid to students
- ✓ To show the drivers of student costs

Key Links:

- ✓ [FY21 Report](#)



Sources and Categories of Financial Aid Defined

94% of University-funded need based financial aid goes to in-state students

- UMass students received a total of nearly **\$900 million** in financial aid in FY21, including university, federal, state and private financial aid.
- Financial Aid falls into 2 categories:
 - Need Based Financial Aid –student demonstrates financial need based on the Free Application for Federal Student Aid (FAFSA)
 - Non-Need Based Financial Aid- student meets certain eligibility requirements other than financial need (note: while this category is not constrained to students demonstrated need, awards are made that address need)
- Tuition revenue supports the financial aid UMass provides
- The majority of University funded financial aid is provided by scholarships, grants, and tuition credits
- University financial aid help drive strategies that:
 - Impact affordability for students with need
 - Recruit new students
 - Retain continuing students
 - Address degree completion requirements

FY21 Financial Aid Projection: Highlights

- FY21 total financial aid from all sources are projected to decrease 9% to \$883 million attributable to COVID conditions driving aid from federal and other sources lower
- University Funded Aid grows despite freezing tuition and refunding room & board in FY20
 - Totaled \$352 million in FY21 which represents 0.3% growth over FY20
 - Represents 40% of the total aid and is primarily scholarships and grants
- Projected lower cost of attendance attributable to COVID conditions has driven dramatic changes in aid by source:
 - Federal aid, representing 46% of total aid, projected to decrease 8% in FY21, excluding CARES Act emergency grants
 - State Aid represents 3% of total aid and projected to decrease 4.7% in FY21
 - Other Aid represents 11% of total aid and projected to decrease 35% in FY21 as students and families require less private borrowing to address unmet need

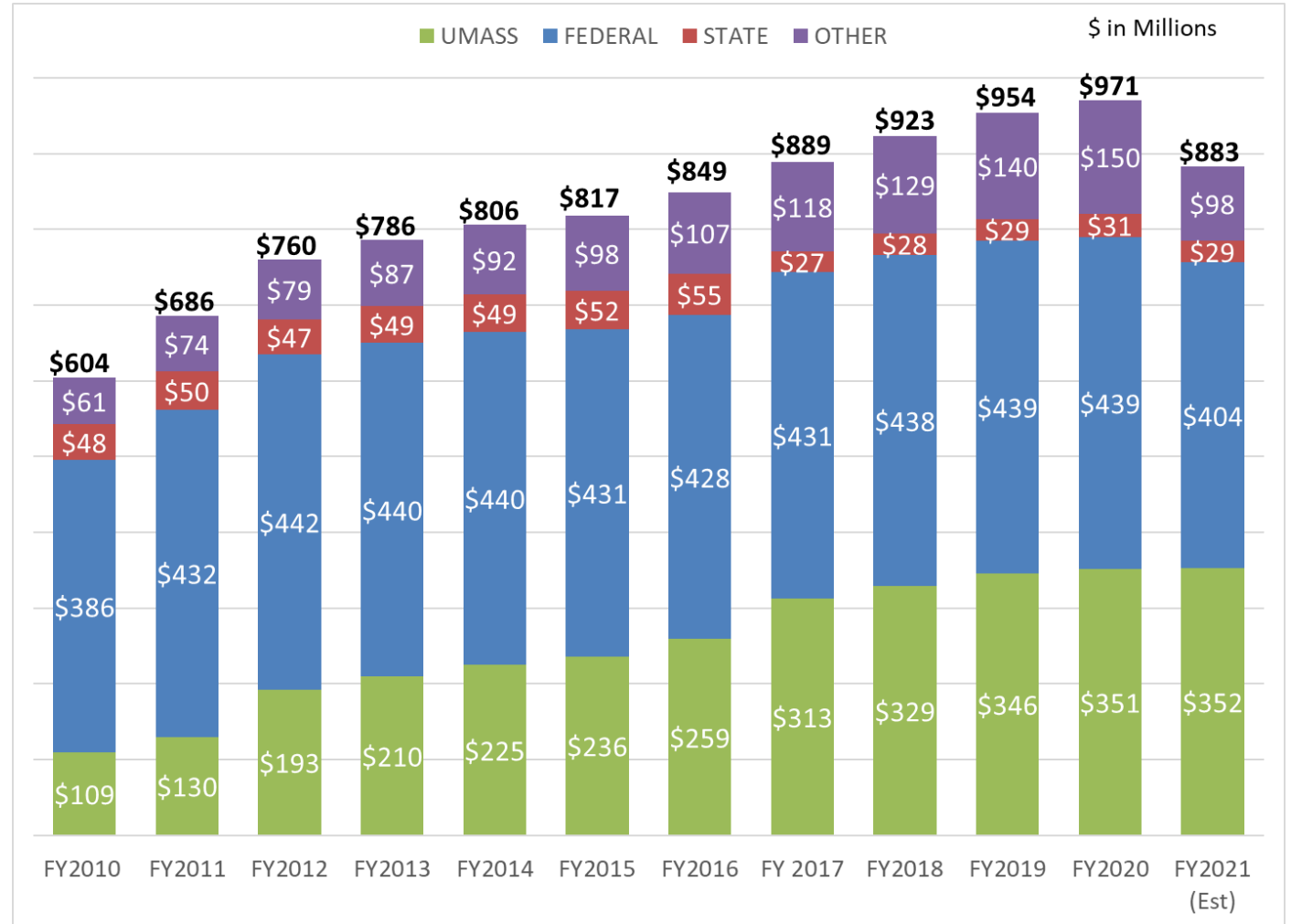
Financial Aid: Impacts from COVID-19

- Adjustment to campus operations and learning modalities as a public health precaution over the past year have impacted the amount of financial aid flowing to our students due to changes in the cost of attendance calculation
- In total an estimated decline of \$88 million in aid during FY21 as there was a reduced number of students living on campuses
- Resulting in a drop of the cost of attendance (COA) for student traditionally living on campus
 - Lower COA results lower need to award need-based aid, and reduces the amount of money a student/family needs to borrow to finance their education because they are only paying for tuition and not room/board
- Federal student loan and private borrowing are estimated to substantially reduce in FY21 due to the lower COA when most borrowing would finance on-campus living

Total Financial Aid by Type

UMass' has increased financial aid to its students by \$241 million, or 216%, since FY10, while federal funding has remained stagnant and state funding has eroded.

- FY21 total financial aid from all sources is estimated to decrease by 9% to \$883 million due to COVID impacts
 - Estimated decline of \$88 million in aid during FY21 is attributed to less Federal student loan and private borrowing
- **University funded financial aid:**
 - Totaled \$352 million in FY21 which represents 0.3% growth over FY20
 - Represents 40% of the total aid and is primarily scholarships and grants
- Student debt remains consistent with prior years with average debt at graduation in FY20 being \$32,291



Average Financial Aid: In-State Undergraduates with Need

Federal Income Range	Average Financial Aid Package	Grant Award	Loan Award	Work Award	Average Unmet Need
Less than \$30,000	\$20,485	54%	36%	10%	\$5,287
\$30,000 - \$40,000	\$20,113	56%	34%	10%	\$4,899
\$40,001 - \$50,000	\$20,027	54%	35%	10%	\$4,749
\$50,001 - \$75,000	\$17,807	49%	39%	12%	\$4,285
\$75,001 - \$100,000	\$14,178	39%	47%	13%	\$3,045
Greater than \$100,000	\$9,512	32%	53%	16%	\$1,583

- Average campus Financial Aid package looks at costs of attendance (tuition, mandatory fees, housing, etc.) net of the Expected Family Contribution
- A Financial Aid Package may contain grants, loans, and work study to defray the cost of attendance
- Unmet need represents the difference between a student's financial aid award, their expected family contribution, and their cost of attendance

Capital Plan





Capital Plan

What is it?

A comprehensive, five-year plan based on financial planning, priorities and strategic plans to ensure effective management of capital assets

What is included?

- ✓ Prioritized list of projects approved by the President and Board of Trustees
- ✓ Funding sources of each project
- ✓ Impact on deferred maintenance as defined and inventoried by a third-party consultant
- ✓ Impact of projects on key financial ratios
- ✓ President approval is required for capital projects between \$2M - \$10M
- ✓ Board approval is required for capital projects greater than \$10M or that require borrowing

When do we do it?

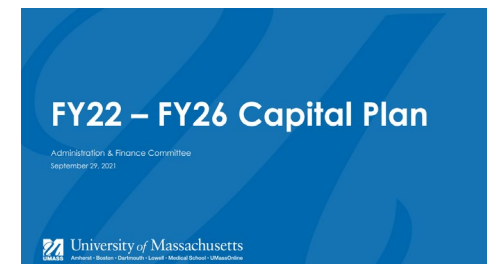
Developed every 2 years from June to August and presented to the Board of Trustees in September; at each board meeting an update is provided on project phases, funding, and spending among other dashboards

Why do we do it?

- ✓ To identify and prioritize capital needs
- ✓ To evaluate available sources of funding
- ✓ To understand the financial impact and timing of needs in relation to the financial forecast
- ✓ To promote effective communication with stakeholders on capital needs and borrowing plans

Key Links:

- ✓ [FY22-26 Capital Plan](#)



University Capital: by the Numbers

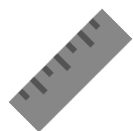
With 375 buildings and 28.3 million gross square feet of space, the University has a complex and extensive real estate profile that needs to be actively managed.



\$4.0 billion deferred maintenance backlog



About **92,000 students, staff, and faculty**



28.3M total GSF across the university



3,677 maintained acres



375 buildings across 5 campuses



\$14.4 billion replacement value

Debt Facts

University credit rating:
Aa2 stable (Moody's), AA-negative(S&P), AA stable (Fitch)

Total debt outstanding:
\$3.0 billion *as of 6/30/21*

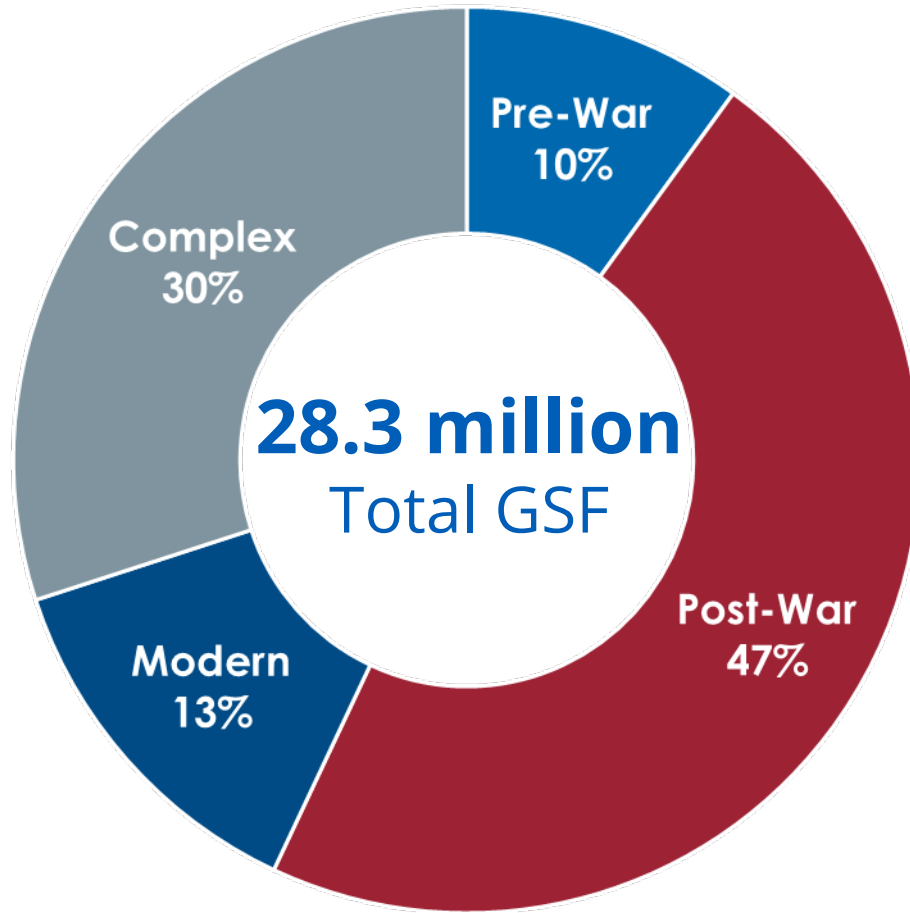
Annual debt service:
\$221 million *FY22 budget*

Debt service burden:
6.4% (peers are under 5%) *as of 6/30/20*

Financial leverage ratio:
0.53 (spendable cash/total debt)
(below the peer median of 1.35, indicating the University has higher total debt in relation to peers)
as of 6/30/20

UMass Building Age

60% of University built in eras requiring higher levels of care and maintenance today

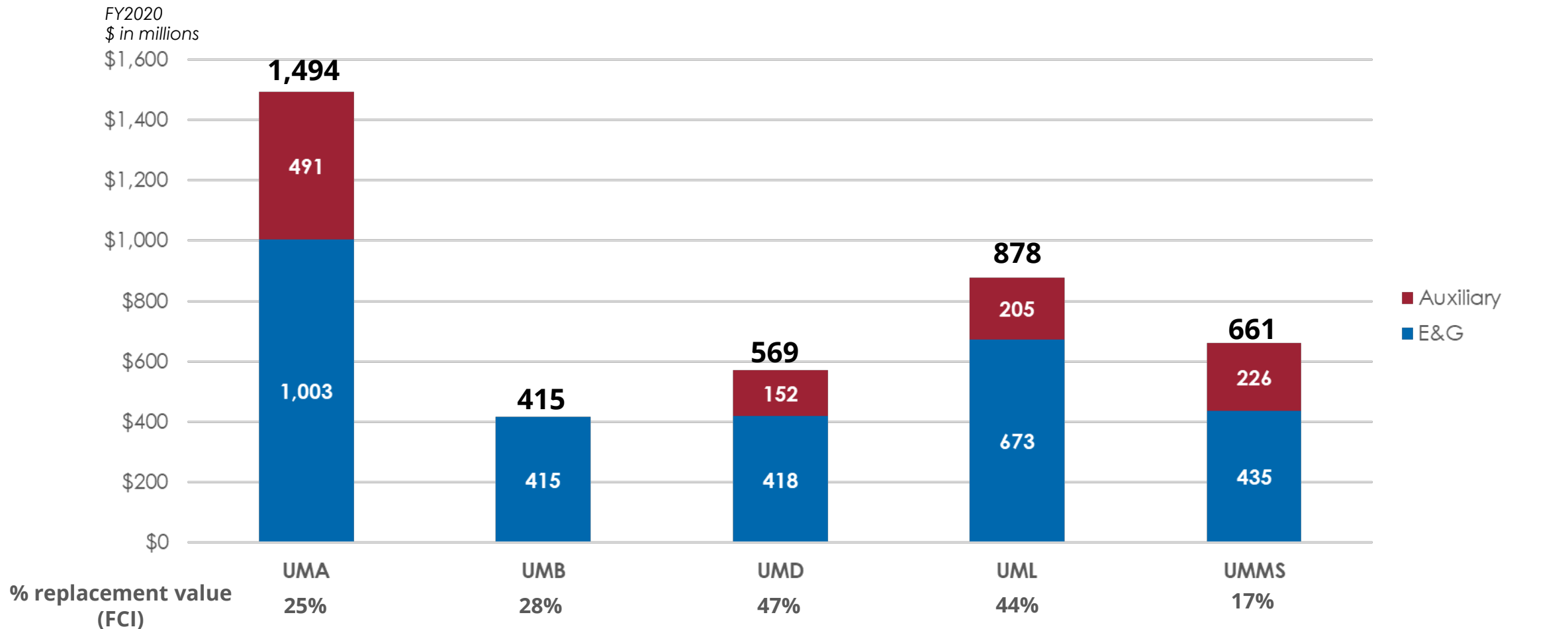


Construction Eras

- Pre-War (pre-1951): durable construction, older but lasts longer
- Post-War (1951-1975): lower quality, needs more repairs & renovation
- Modern (1975-1990): quick flash construction, low quality components
- Complex (post-1990): technically complex, higher quality, more expensive to maintain or repair

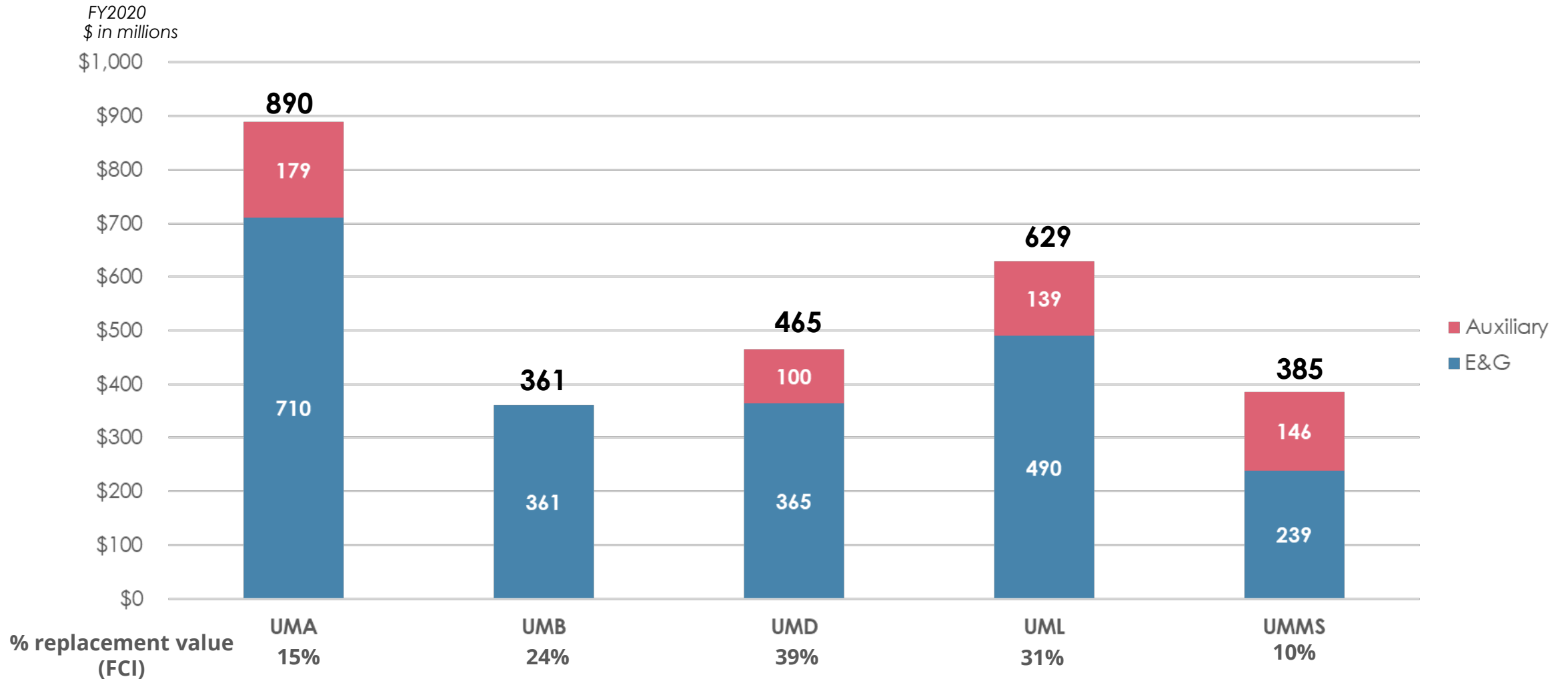
Deferred Maintenance Backlog

Total deferred maintenance is approximately \$4.0 billion, down from \$4.4 billion a year prior. Addressing the backlog over a 10 year period would require a \$400 million investment annually.



Deferred Maintenance Backlog: 1-3 Years

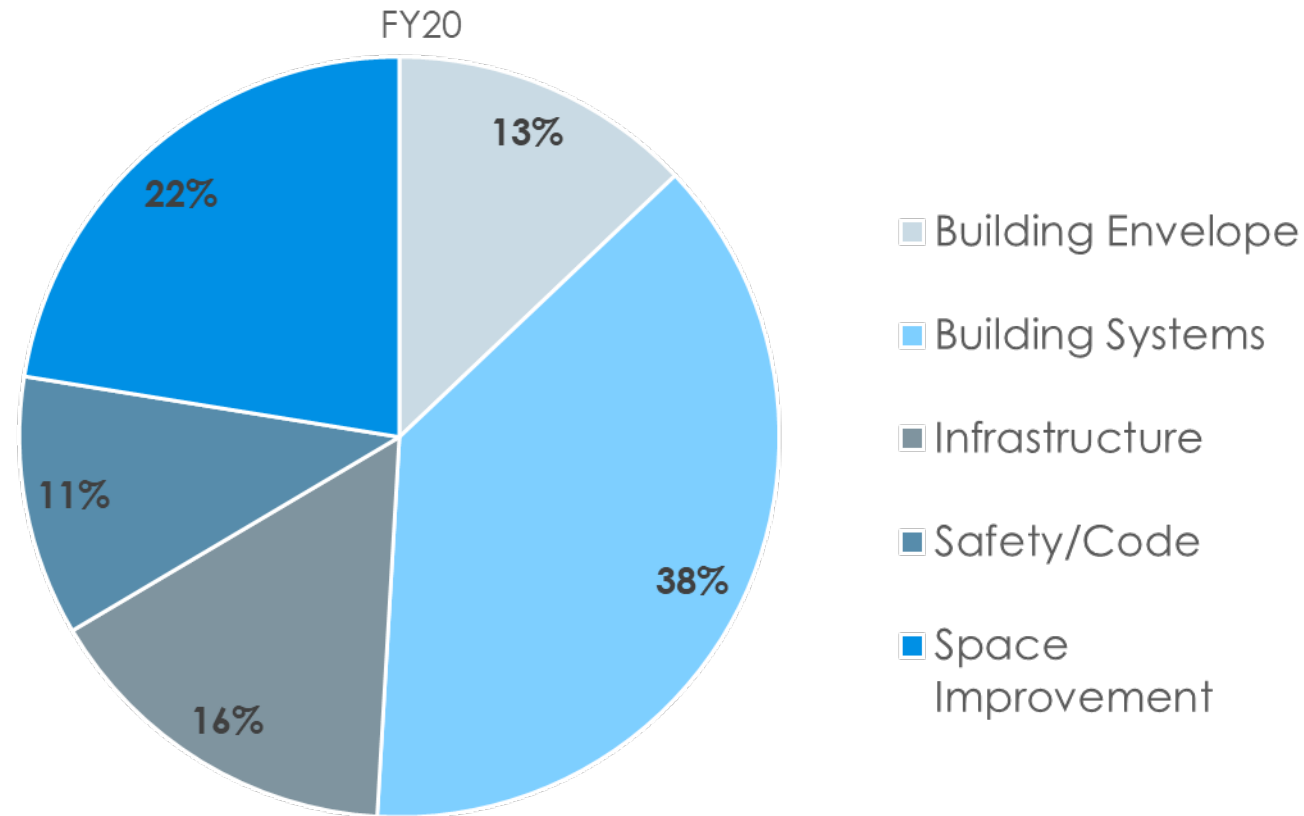
The deferred maintenance needs coming due in 1-3 years total approximately \$2.7 billion



Deferred Maintenance Backlog: by Type

The 1-3 years deferred maintenance needs at UMass total approximately \$2.7 billion

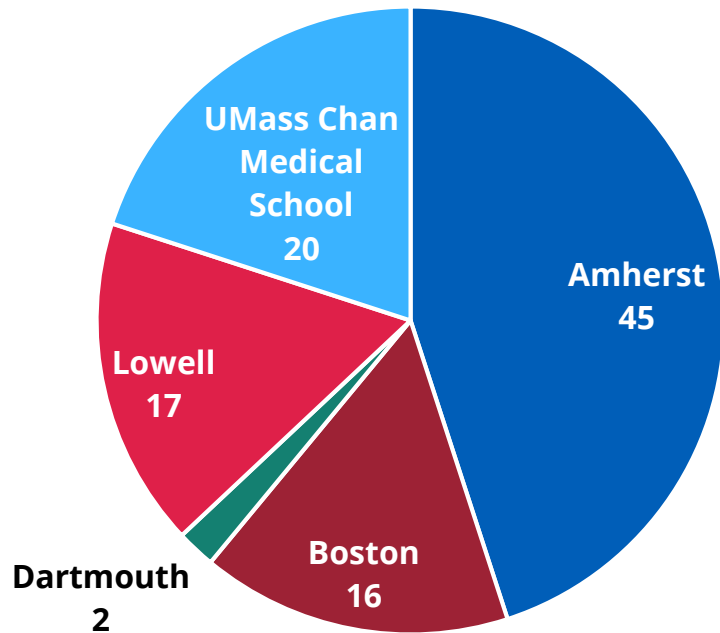
- Consistent with Gordian higher education clients



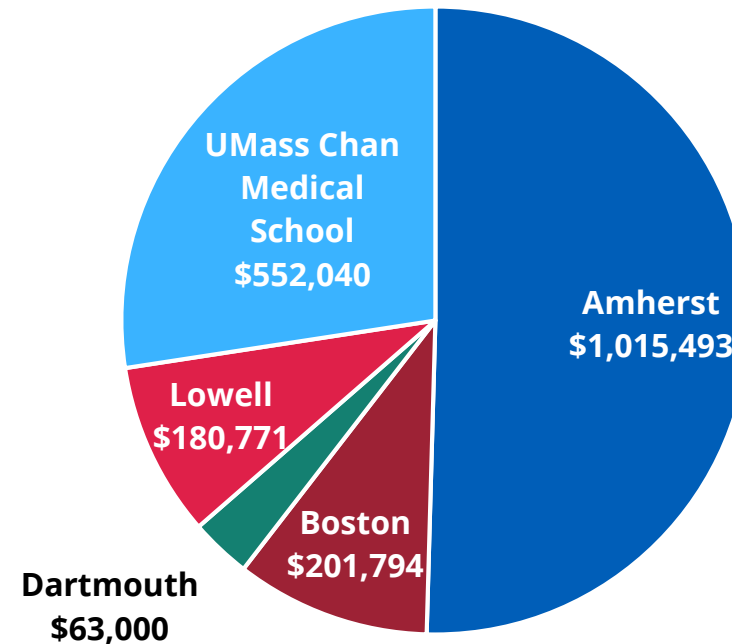
Capital Plan

Current capital plan includes 100 projects totaling \$2.0 billion.

Number of Projects
100



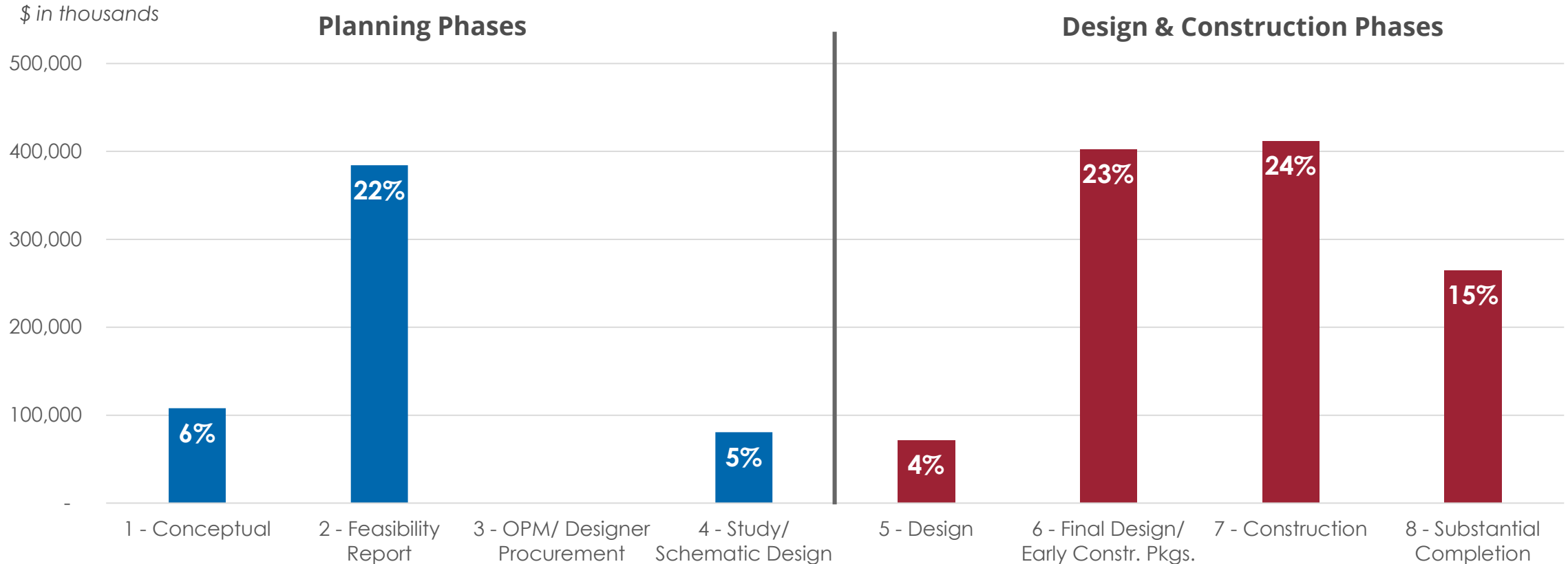
Estimated Cost of Projects
\$2.0B



\$ in thousands

Project Phases Dashboard

39% of projects are in construction or substantially complete (phases 7 & 8).



Note: Phases 1-4 are authorized with Vote 1. Phases 5-9 are approved with Vote 2. Phase 9 is not shown, as it indicates completion. Data as of 10/2021. Percentages based on project cost. Alternative financing & delivery projects excluded.

Alternative Finance & Delivery

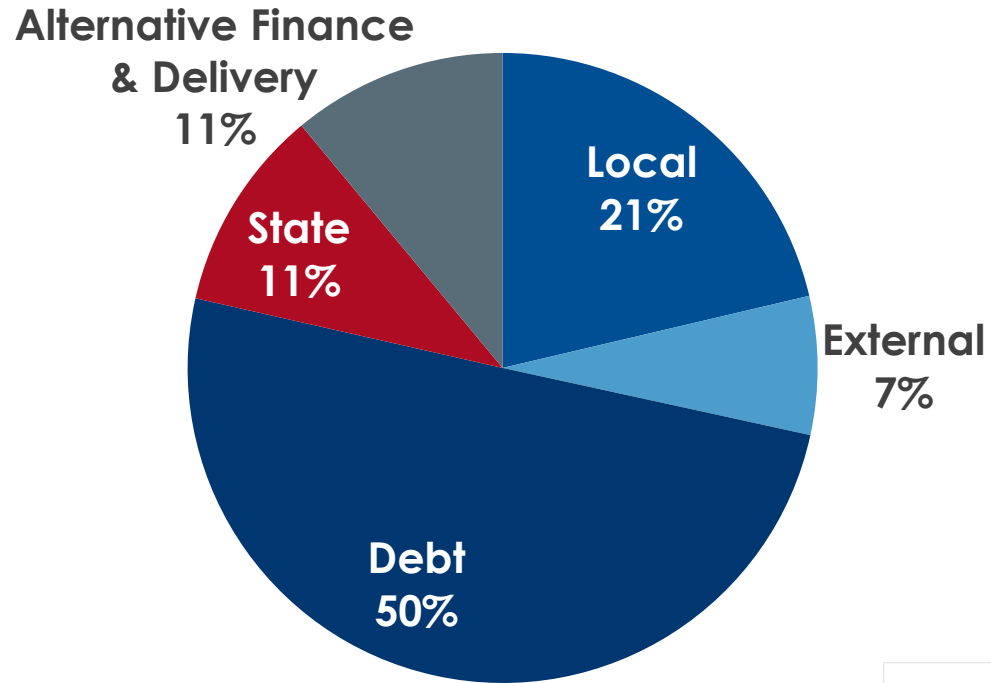
University continues to pursue public-private partnerships as innovative means of capital delivery.

\$ in thousands

Campus	Project	Cost (\$)	Vote Status
Amherst	North Village Apartments	67,500	Vote 3 (12/15/21)
Amherst	Housing Expansion	210,000	Vote 3 (12/15/21)
Boston	Calf Pasture Pump House	TBD	Vote 1 (9/4/19)
Lowell	Tsongas Center Annex	12,000	Vote 2 (12/5/19)
Total:		\$289,500	

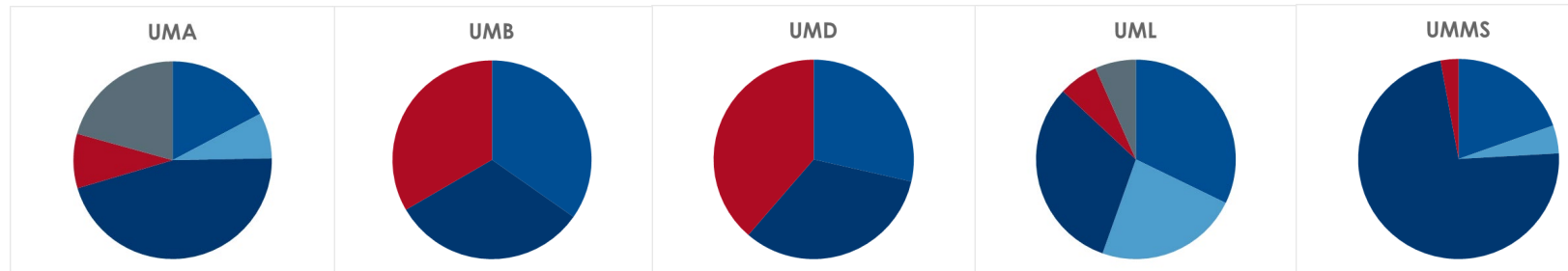
Funding Sources Dashboard

79% of Capital Plan funded by University resources.



\$ in thousands

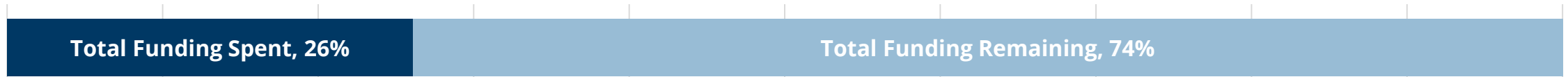
Funding Source	Total Capital Plan	% Total
Debt	1,009,132	50%
Local	429,238	21%
External	142,939	7%
Subtotal University	1,581,309	79%
Alternative Finance & Delivery	222,000	11%
State	209,789	10%
TOTAL	2,013,098	



Project Spending Dashboard

26% of Capital Plan spending has occurred; spending to date varies by source.

Capital Plan = \$2.0 billion



Debt = \$1.0 billion



Local/External = \$572 million



State = \$210 million



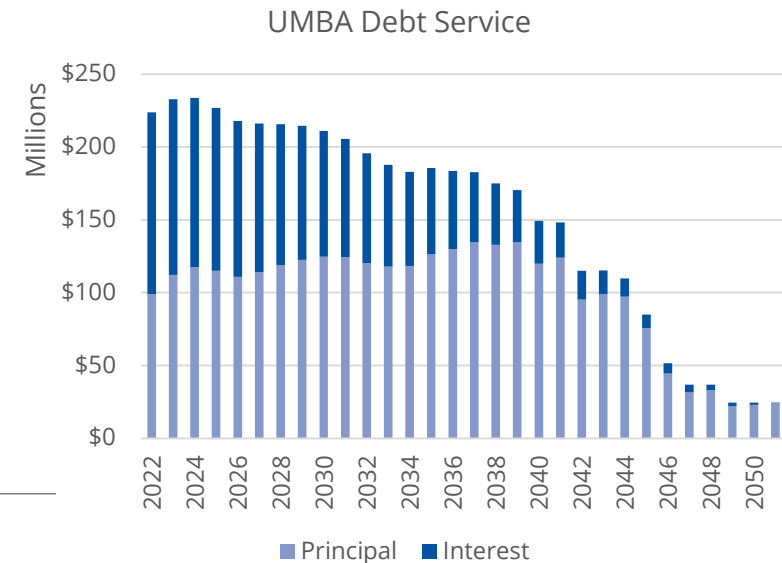
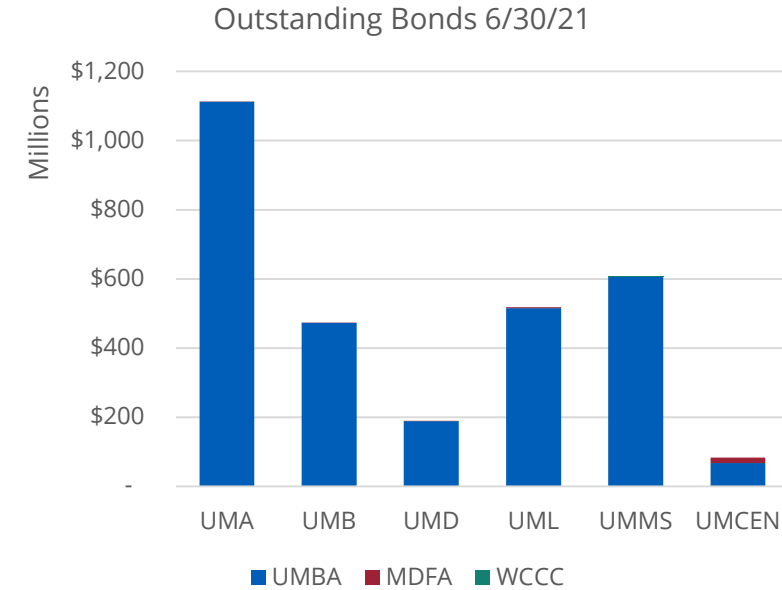
Note: Spending through 10/21. Projects in phases 9A and 9B have been archived due to completion.

University Outstanding Debt

- The University had \$3.0 billion in outstanding bonds as of 6/30/21

- University debt consists of UMBA, MDFA, & WCCC bonds:
 - UMBA debt = \$3.0 billion
 - MDFA debt = \$20.6 million
 - WCCC debt = \$425 thousand

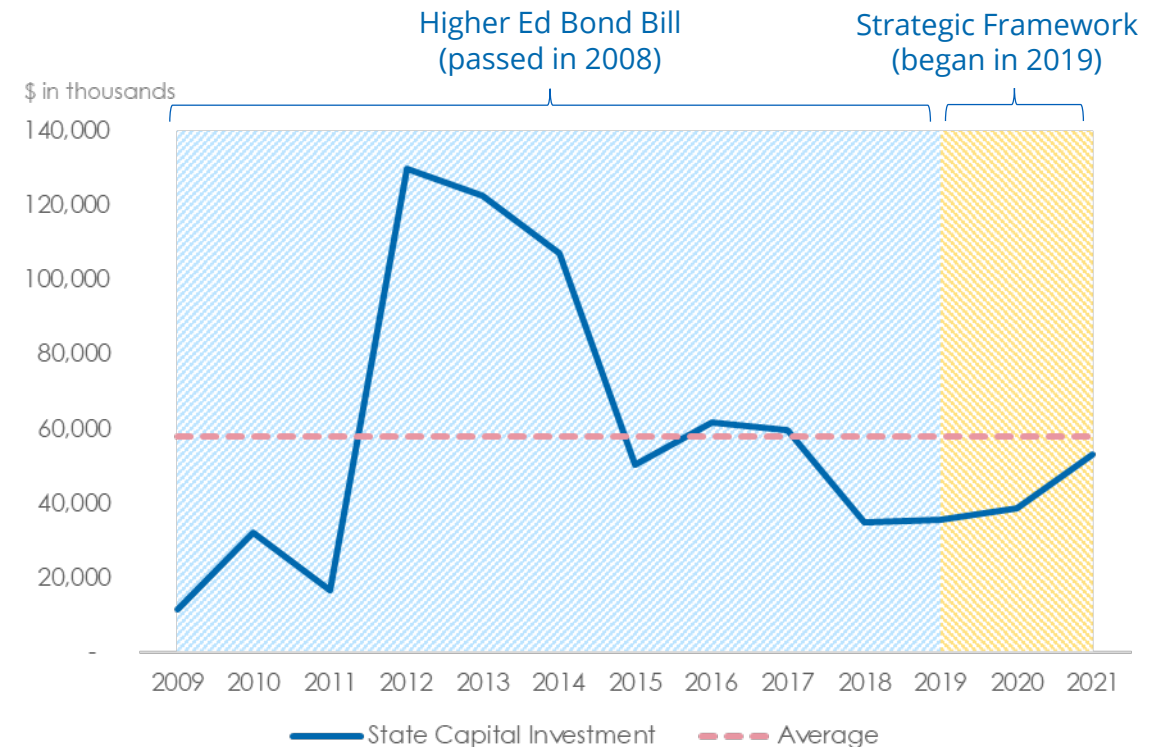
- 59.8% of outstanding UMBA bonds are payable within 15 years



State: Strategic Framework for Higher Ed Capital Investment

- Executive Office for Administration & Finance develops an annual statewide capital plan, approves projects funded by University debt and, through the Division of Capital Asset Management & Maintenance, manages state funded projects.

Programs		State Funding
Major Projects	Major renovation, demolition, or replacement of existing facilities	\$78M Substructure at Boston; \$25M SENG Renovation at Dartmouth
Critical Repairs	Renewal, repair and replacement of equipment, systems and infrastructure (aka deferred maintenance)	\$76M commitment FY19 – FY23 (~\$15M annually)
Small Projects	Small repair/replacement projects that can be completed quickly	\$6.7M allocated in FY21



Amherst Projects: Board

Traditional Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
Thompson Deferred Maintenance	2,250,000	2 - Feasibility Report	Authorized
School of Public Health and Health Sciences Renovations	30,000,000	2 - Feasibility Report	Authorized
Engineering Building	100,000,000	2 - Feasibility Report	Authorized
Computer and Information Sciences Building	125,000,000	2 - Feasibility Report	Authorized
Goodell Renovation	35,000,000	4 - Study / Schematic Design	Authorized
Energy Improvements	15,000,000	5 - Design	Approved
Office/Lab/Academic Renovations	52,500,000	6 - Final Design / Early Construction Packages	Approved
Replace Oil Filled Transformers	2,000,000	7 - Construction	Approved
Goessmann, SPHHS Renovations	15,100,000	7 - Construction	Approved
Worcester Dining Commons Renovation	70,300,000	8 - Substantial Completion	Approved
Whitmore deferred maintenance	4,370,000	8 - Substantial Completion	Approved
Student Union Building	67,200,000	8 - Substantial Completion	Approved
Campus Central Core Project	31,050,000	8 - Substantial Completion	Approved
Fine Arts Center renovations	12,573,376	8 - Substantial Completion	Approved
Central Heating Plant Boiler/Co-Gen Fitout	22,600,000	8 - Substantial Completion	Approved
Total	584,943,376		

Alternative Finance & Delivery Projects	
Project	Adjusted Cost (\$)
North Village Apartments	67,500,000
Housing Expansion	210,000,000
Total	277,500,000

Amherst Projects: President

President Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
Lederle Chemistry Teaching Laboratories	9,000,000	2 - Feasibility Report	Authorized
Washington and Kennedy Residence Halls Life Safety Upgrades	5,000,000	2 - Feasibility Report	Authorized
Class Lab Renovations	5,000,000	2 - Feasibility Report	Authorized
Deferred Maintenance and Campus Infrastructure	8,000,000	2 - Feasibility Report	Authorized
Instructional Space Renovations	5,000,000	2 - Feasibility Report	Authorized
Johnson Residence Hall DM	6,000,000	2 - Feasibility Report	Authorized
New Faculty Hire Renovations	8,000,000	2 - Feasibility Report	Authorized
Roof Replacements	7,000,000	2 - Feasibility Report	Authorized
Memorial Hall DM	2,000,000	2 - Feasibility Report	Authorized
Utilities & Infrastructure	9,000,000	4 - Study / Schematic Design	Authorized
Lederle Lab Renovation	3,000,000	4 - Study / Schematic Design	Authorized
Brett Residence Hall DM	4,000,000	4 - Study / Schematic Design	Authorized
Mt. Ida Office Renovation	7,000,000	6 - Final Design / Early Construction Packages	Approved
Housing Deferred Maintenance	3,800,000	6 - Final Design / Early Construction Packages	Approved
Johnson, Lewis, & Thatcher Deferred Maintenance	5,200,000	7 - Construction	Approved
Sidewalks/Roads/Landscape	5,000,000	7 - Construction	Approved
Wareham Cranberry Station	7,750,000	7 - Construction	Approved
Lincoln Campus Center Cooling Tower	3,500,000	7 - Construction	Approved
National Aeronautics, Research, Development and Training Center	5,000,000	8 - Substantial Completion	Approved
Artificial Turf Intramural Fields	6,500,000	8 - Substantial Completion	Approved
Furcolo Auditorium Project	2,500,000	8 - Substantial Completion	Approved
Hills Demolition	4,000,000	8 - Substantial Completion	Approved
Information and Computer Sciences Renovations	8,000,000	8 - Substantial Completion	Approved
Lederle Graduate Research Center Fire Alarm	3,000,000	8 - Substantial Completion	Approved
Marston Repairs and Renovations	2,500,000	8 - Substantial Completion	Approved
Morrill Science Complex, Elevator Replacement	3,800,000	8 - Substantial Completion	Approved
Mullins Roof and Infrastructure	8,000,000	8 - Substantial Completion	Approved
STEM Renovations	6,500,000	8 - Substantial Completion	Approved
Total	153,050,000		

Boston Projects

Traditional Projects				
Project	Adjusted Cost (\$)	Project Phase	Status	
Demolish Substructure, Science Center, and Pool (SDQD)	137,139,950	7 - Construction	Approved	
Total	137,139,950			

Alternative Finance & Delivery Projects	
Project	Adjusted Cost (\$)
Calf Pasture Pump House	-
Total	-

President Projects				
Project	Adjusted Cost (\$)	Project Phase	Status	
Wheatley Hall Façade Repairs	6,041,000	1 - Conceptual	Authorized	
Utility Plant: Add 3,200 Tons of Cooling Tower Capacity	9,000,000	1 - Conceptual	Authorized	
Quinn Administration and Service & Supply Buildings Fire Protection	3,025,000	1 - Conceptual	Authorized	
Healey Library Transformer Replacement	2,166,750	1 - Conceptual	Authorized	
Healey Library Building Fire Protection	8,110,000	1 - Conceptual	Authorized	
Upgrade Building Controls Campus-Wide	2,140,000	4 - Study / Schematic Design	Authorized	
McCormack Hall: Roof Replacement and Building Envelope Repairs Phase 2	3,000,000	4 - Study / Schematic Design	Authorized	
S&S Loading Dock Concrete Repairs	2,437,000	4 - Study / Schematic Design	Authorized	
Utility Plant Improvements	9,900,000	4 - Study / Schematic Design	Authorized	
Network Refresh Edge Switches	3,529,619	4 - Study / Schematic Design	Authorized	
Healey Ductwork Repair & Air Handling Unit Replacement	2,430,000	5 - Design	Approved	
Repairs to Falling Sections of Harborwalk	3,210,000	5 - Design	Approved	
Quinn Administration and Service & Supply Buildings Roof Replacement/Repair	3,165,022	7 - Construction	Approved	
McCormack Hall: Roof Replacement and Building Envelope Repairs	6,500,000	7 - Construction	Approved	
Total	64,654,391			

Dartmouth Projects

Traditional Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
Traditional First Year Residence Hall Demolition	18,000,000	5 - Design	Approved
SENG - Building System Project	45,000,000	7 - Construction	Approved
Total	63,000,000		

Lowell Projects

Traditional Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
Ball Hall Comprehensive Renewal Phase I (Infrastructure & Envelope)	30,000,000	1 - Conceptual	Authorized
Olney Project A - Instructional Modernization	40,000,000	2 - Feasibility Report	Authorized
Weed Hall Renewal Phase I (includes NIH Grant Project Scope)	25,000,000	2 - Feasibility Report	Authorized
Critical Repair - Olsen Strategic Renovations, Repairs and Replacements	22,745,756	7 - Construction	Approved
Total	117,745,756		

Alternative Finance & Delivery Projects	
Project	Adjusted Cost (\$)
Tsongas Center Annex	12,000,000
Total	12,000,000

President Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
Pinanski Radiation Physics Lab	2,000,000	1 - Conceptual	Authorized
Residence Hall & Student Affairs Renewal Program Phase I	9,000,000	1 - Conceptual	Authorized
Dugan - Art & Design 3D Studio Renovation	3,000,000	1 - Conceptual	Authorized
Olney Laser Lab	2,200,000	1 - Conceptual	Authorized
South Campus Electrical & Steam Infrastructure	5,500,000	1 - Conceptual	Authorized
Costello D1 Improvements Phase 2 - Fill & Repurpose Pool Area	4,000,000	2 - Feasibility Report	Authorized
Southwick Hall 2nd & 3rd Floors	3,500,000	5 - Design	Approved
Critical Repair Tsongas HVAC	9,000,000	5 - Design	Approved
Interdisciplinary Robotics Lab	3,625,000	5 - Design	Approved
Concordia Fire Protection, Roof and Elevator	2,300,000	7 - Construction	Approved
Costello Basketball Suite	4,400,000	8 - Substantial Completion	Approved
Alumni Refresh	2,500,000	8 - Substantial Completion	Approved
Total	51,025,000		

UMass Chan Medical School Projects

Traditional Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
Parking Lot Maintenance - Main Campus	10,840,000	1 - Conceptual	Authorized
Departmental equipment purchases	10,000,000	1 - Conceptual	Authorized
Library repurposing and renovations	5,500,000	4 - Study / Schematic Design	Authorized
New Education and Research Facility	325,000,000	6 - Final Design / Early Construction Packages	Approved
VA-1 Worcester VA Community Based Outpatient Clinic - New Facility - Phase 1	78,000,000	7 - Construction	Approved
Power Plant Expansion	50,000,000	7 - Construction	Approved
Total	479,340,000		

President Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
Clinical Wing Renovation - 4th Phase (2nd Floor)	7,000,000	1 - Conceptual	Authorized
Enhance chilled water loop pump/controls	3,000,000	2 - Feasibility Report	Authorized
Gnotobiotics Core (LRB)	3,000,000	4 - Study / Schematic Design	Authorized
Clinical Wing Restroom Upgrades (14 Rooms)	3,000,000	5 - Design	Approved
Childcare Expansion	2,800,000	5 - Design	Approved
E/M DM - 5 School HVAC Upgrades / Replacements - Amphitheater Mechanical Systems and AHU	4,000,000	5 - Design	Approved
E/M DM - 5 School HVAC Upgrades / Replacements - Student Wing Mechanical Systems and AHU	4,000,000	5 - Design	Approved
Basic Wing Restroom Upgrade (14 Rooms)	3,000,000	5 - Design	Approved
Medical School Elevator Replacement	6,000,000	6 - Final Design / Early Construction Packages	Approved
Student Wing Substation, Risers and Electrical Room Replacements	8,300,000	6 - Final Design / Early Construction Packages	Approved
Install Chiller 6	6,000,000	7 - Construction	Approved
Clinical Wing - 3rd Phase	6,000,000	7 - Construction	Approved
Clinical Wing Substations, Risers and Electrical Room Replacements	8,300,000	7 - Construction	Approved
Basic Wing Substations, Risers and Electrical Room Replacements	8,300,000	7 - Construction	Approved
Total	72,700,000		

Sustainability



University & State are Aligned on Energy Efficiency Goals

Significant investment required to meet these goals.

University Priorities:

- Board adopted Sustainability policy in 2016 with strategies around reducing carbon emissions and energy use; increasing use of renewable energy
- University leads in new construction and renovations with 31 buildings LEED certified; 33% of statewide LEED certifications
- Partnership with DOER in emissions reduction efforts

State Priorities:

- Executive Order 594 signed in April; directing state agencies to steps to reduce greenhouse gas emissions and improve energy efficiency toward net zero goal by 2050
- Focus on existing buildings, reducing onsite fossil fuel consumption and optimizing building performance
- Requires new construction be LEED Silver or higher and perform 20% better than existing energy code requirements

State Investment Required to Meet Goals

Campuses engaged in energy & sustainability master planning efforts and coordinating with State.

- **Funding**: will require state investment to decarbonize campus energy infrastructure
 - For example, electrifying campus heating and cooling systems to meet emission goals requires investments in new utility infrastructure on all 5 campuses – estimated cost \$1 billion+
- **Infrastructure**: concerns on the ability of the ISO New England Grid to keep pace with demand while ensuring the reliability and resiliency for business continuity
- **Deferred Maintenance Needs**: significant backlog impacts energy efficiency; requires a partnership for funding to address projects that reduce energy demand and address long-standing capital needs

Real Estate & Asset Management



Real Estate & Asset Management

With 375 buildings and 28.3 million gross square feet of space, UMass has a complex and extensive real estate portfolio that needs to be actively managed.

- University mission built on research and education; mission cannot be reached without state of the art facilities.
- Regularly evaluating real estate assets; with the advice of industry experts, assesses opportunities to acquire real estate, change the use of existing real estate and dispose and monetize property, when in the best long term interest of the University.
- Campuses have acquired buildings and land in different ways such as donations, State resources, and University resources including debt.

Acquisitions & Dispositions

UMass actively manages its real estate which sometimes requires the acquisition and disposition of property when it is in the long-term interest of the University to do so.

Campus	Transactions	Amount (\$)	Status
Amherst	472 North Pleasant Street	12,500,000	Complete - 2020
Amherst	Mount Ida	75,000,000	Complete - 2018
Amherst	400 Venture Way, Hadley	4,650,000	Complete - 2018
Lowell	225 Aiken Street	5,800,000	Complete - 2015
Lowell	193-195 & 199-201 Pawtucket Street	2,000,000	Complete - 2015
Lowell	Perkins Lofts	61,500,000	Complete - 2016
Lowell	West Campus (disposition)	4,051,770	Complete - 2019

Boston Bayside Property Update: On February 14, 2019, UMass designated Accordia Partners to build a mixed-use urban innovation campus on the 19.94-acre Bayside property, bought by UMass for \$18.7 million in 2010. Accordia offered a minimum of \$192.5 million and a maximum of \$235 million (depending on the square footage approved) for the 99-year-lease which is scheduled to be finalized on or before June 2022.

#6. Key Financial Ratios & Peer Analysis



University of Massachusetts

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

Key Financial Ratios





Financial Ratios

What is it?

Key financial metrics used to evaluate performance in relation to historical trend and peers

When do we do it?

Annually as part of the operating budget, financial forecast and financial statements

What is included?

- ✓ Operating Margin
- ✓ Operating Cash Flow Margin
- ✓ Debt Service Burden
- ✓ Debt Service Coverage
- ✓ Financial Leverage
- ✓ Spendable Cash & Investments to Operating Expenses

Why do we do it?

- ✓ To understand the impact of revenue and expense assumptions and decisions
- ✓ To effectively communicate with key stakeholders
- ✓ To compare our performance to peers
- ✓ To set goals and to assist in decision making

Importance of Credit Ratings

- The University of Massachusetts currently maintains favorable credit ratings of Aa2 (Moody's), AA- (Standard & Poor's) and AA (Fitch)
- Strong credit ratings are important as they demonstrate objective assessments of the relative creditworthiness
- Strong credit ratings provide:
 - Investor confidence in the entity
 - Increased attractiveness for a larger pool of investors leading to greater marketability and liquidity
 - More favorable interest rates for new projects and refinancing

Strong Fiscal Oversight Recognized by Credit Rating Agencies

- The university's credit rating from Moody's Investors Service is in the third-highest category.
- In its latest credit report, Moody's states UMass will have "sufficient runway to manage through near-term operating volatility associated with the pandemic."
- Moody's cites the university's "large scale and scope of operations ... and its excellent strategic positioning that incorporates disciplined fiscal oversight."
- Moody's also recognizes UMass for its "important role in Massachusetts higher education," "strong fiscal discipline and oversight," and "growing net tuition revenue and research activity."



Rating
Aaa
Aa1
Aa2
Aa3
A1
A2
A3
Baa1
Baa2
Baa3
Ba1
Ba2
Ba3
B1
B2
B3
Caa1
Caa2
Caa3
Ca

Highest



Lowest

Long-Term Rating Stability a Strength

UMass' credit rated consistently strong since 2010

Aa2

Moody's

AA

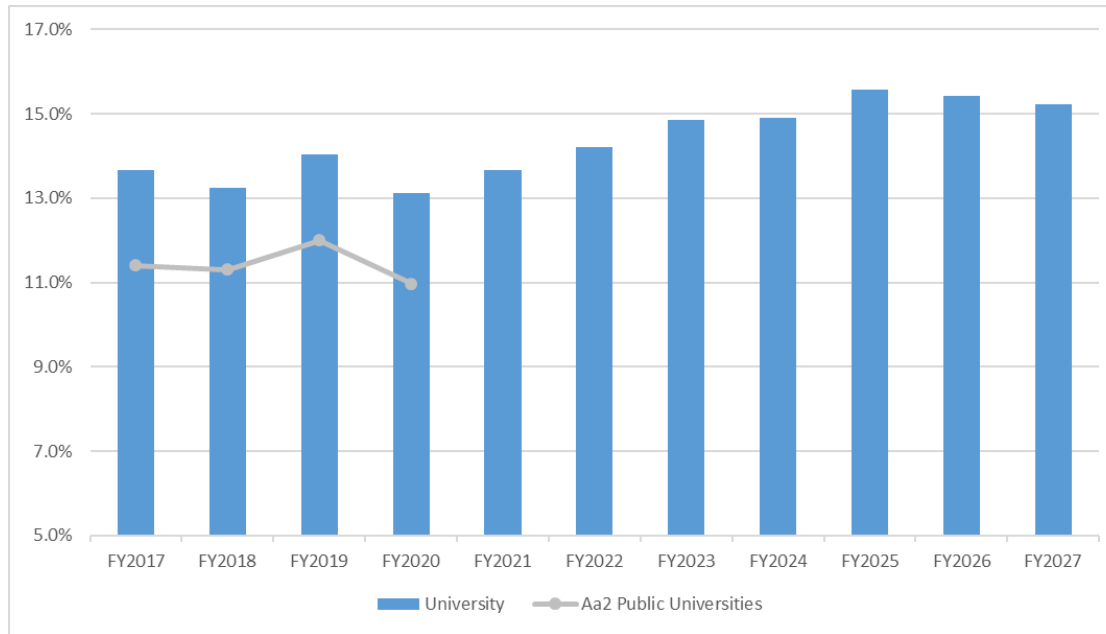
Fitch

AA-

S&P

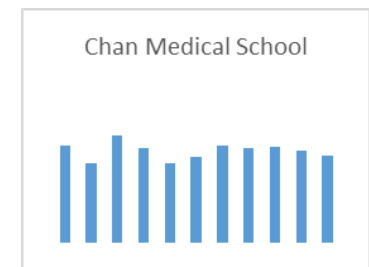
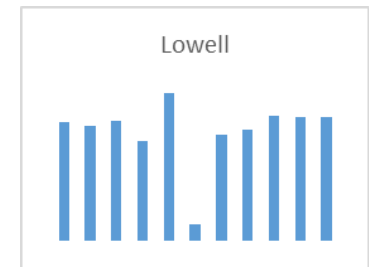
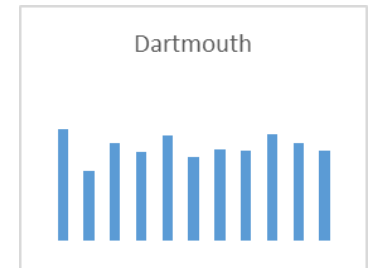
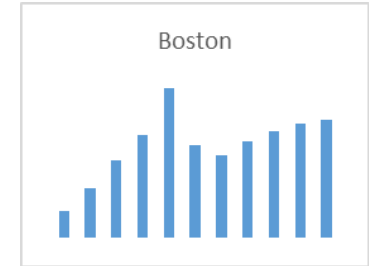
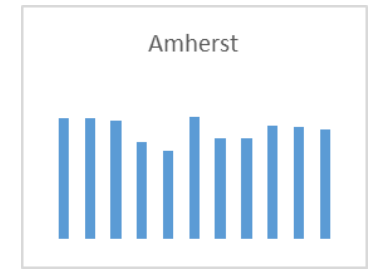
- There have been no changes to UMass' credit ratings since 2010, when the University received upgrades from Moody's and Fitch alongside rating methodology changes

Operating Cash Flow Margin

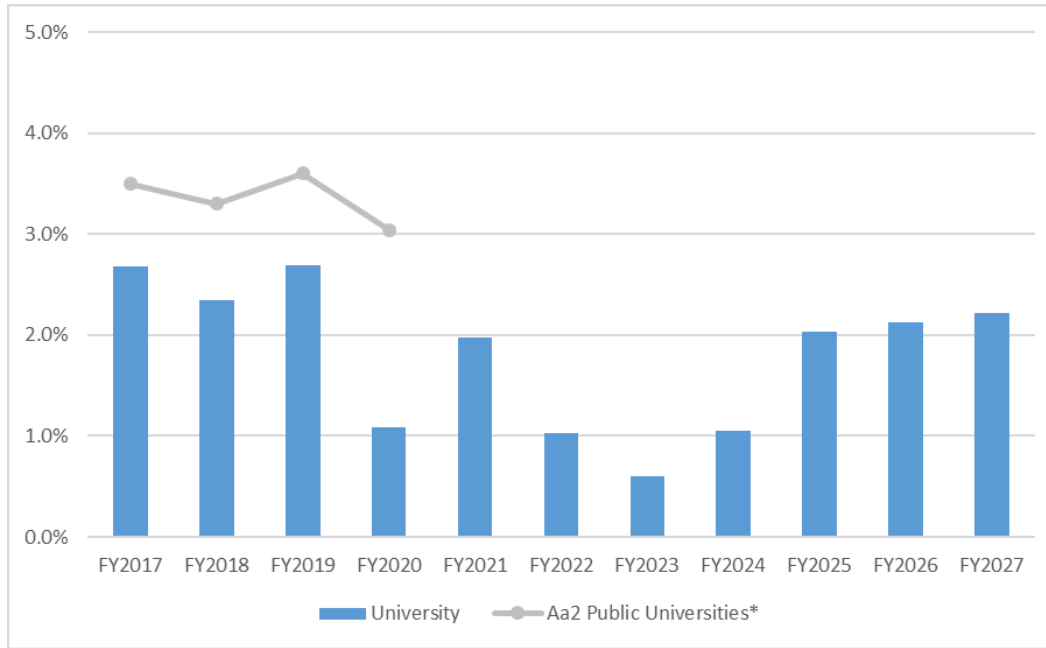


	Actual					Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Amherst	14.8%	14.8%	14.6%	12.9%	12.2%	14.9%	13.2%	13.2%	14.2%	14.0%	13.9%
Boston	7.1%	9.0%	11.2%	13.3%	17.3%	12.4%	11.7%	12.8%	13.5%	14.2%	14.4%
Dartmouth	13.9%	10.6%	12.8%	12.2%	13.4%	11.8%	12.4%	12.3%	13.6%	12.9%	12.3%
Lowell	14.6%	14.3%	14.7%	13.1%	16.9%	6.3%	13.6%	13.9%	15.1%	15.0%	15.0%
Chan Medical	12.8%	11.5%	13.7%	12.6%	11.3%	11.9%	12.9%	12.6%	12.7%	12.4%	12.0%
Central	18.2%	17.5%	12.0%	12.2%	15.1%	11.8%	9.7%	9.1%	8.0%	7.3%	6.7%
University	13.7%	13.2%	14.0%	13.1%	13.7%	14.2%	14.9%	14.9%	15.6%	15.4%	15.2%

Excludes impact of GASB 68 & 75



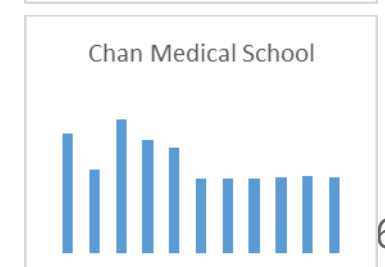
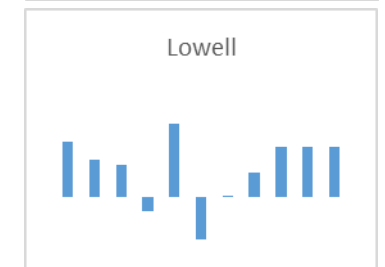
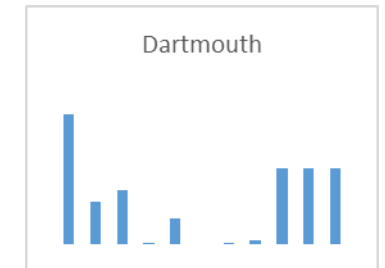
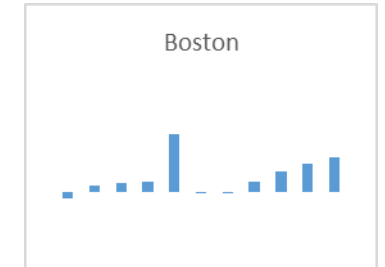
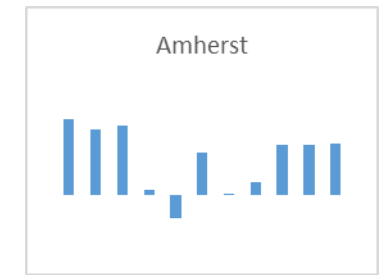
Operating Margin



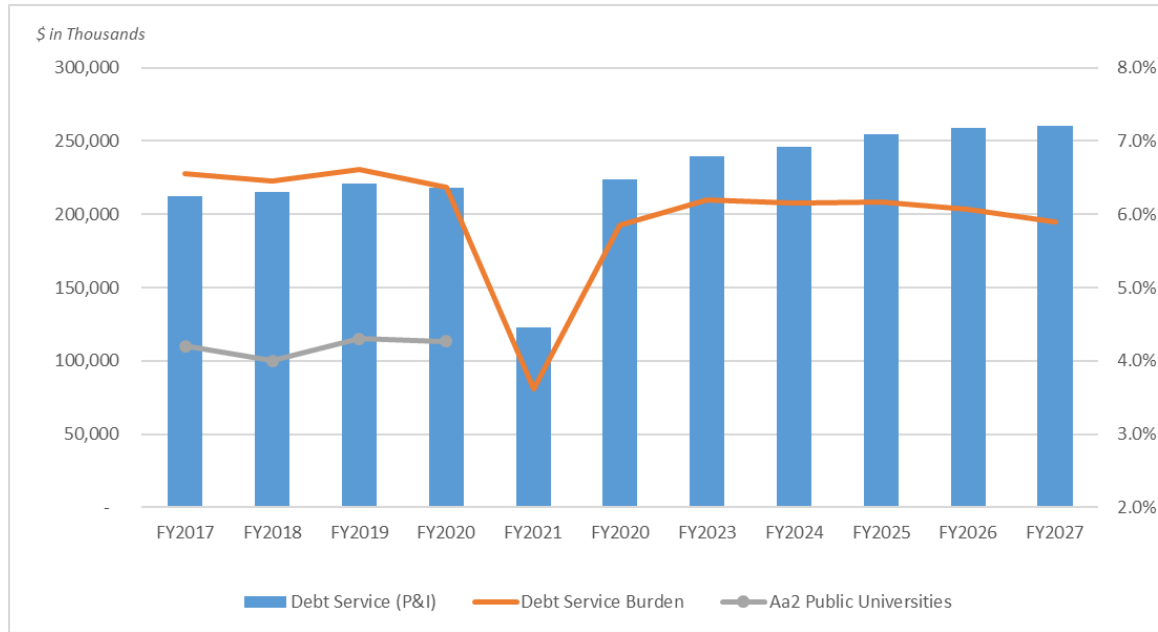
*Moody's OM calculation which uses normalized investment income

	Actual					Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Amherst	3.0%	2.6%	2.7%	0.2%	-0.9%	1.7%	0.0%	0.5%	2.0%	2.0%	2.0%
Boston	-0.7%	0.6%	0.9%	1.1%	5.8%	0.0%	0.0%	1.0%	2.0%	2.8%	3.4%
Dartmouth	3.4%	1.1%	1.4%	0.0%	0.7%	0.0%	0.0%	0.1%	2.0%	2.0%	2.0%
Lowell	2.2%	1.5%	1.3%	-0.6%	2.9%	-1.7%	0.0%	1.0%	2.0%	2.0%	2.0%
Chan Medical	3.2%	2.2%	3.5%	3.0%	2.8%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Central	6.4%	10.4%	8.9%	4.1%	9.9%	3.3%	2.1%	2.1%	2.1%	2.1%	2.2%
University	2.7%	2.3%	2.7%	1.1%	2.0%	1.0%	0.6%	1.1%	2.0%	2.1%	2.2%

Excludes impact of GASB 68 & 75

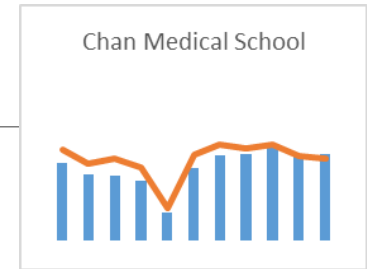
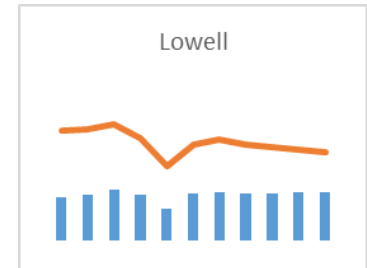
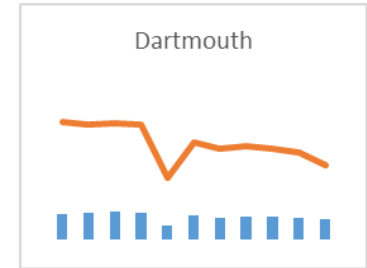
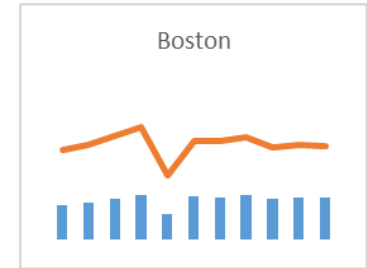
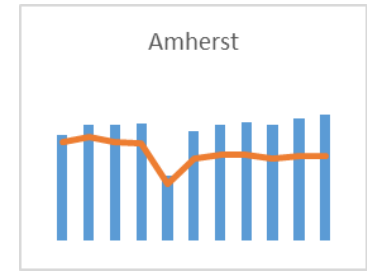


Debt Service Burden

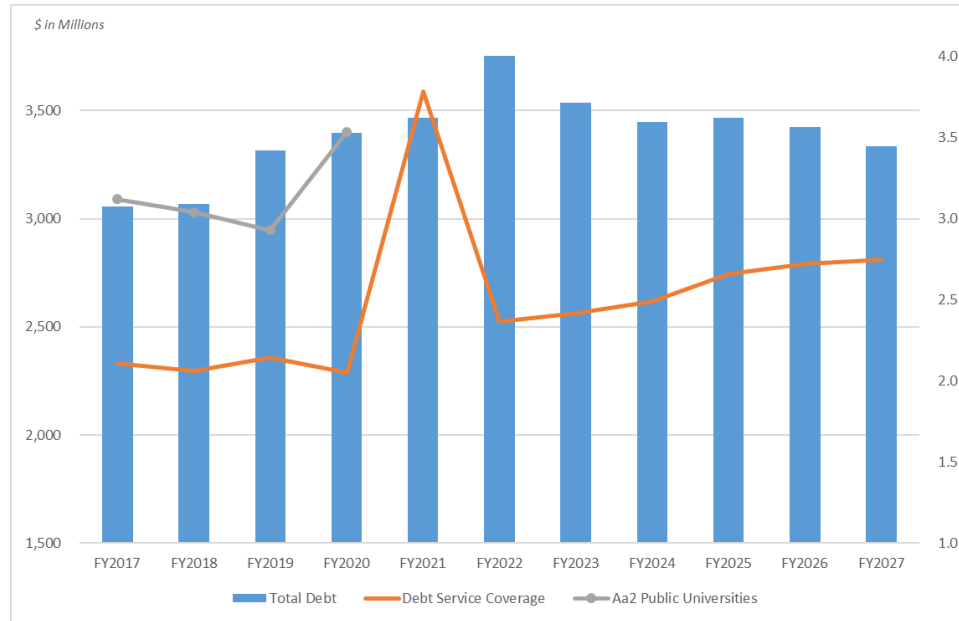


	Actual					Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Amherst	6.6%	6.8%	6.5%	6.4%	3.7%	5.5%	5.7%	5.7%	5.4%	5.6%	5.6%
Boston	5.9%	6.3%	6.9%	7.5%	4.2%	6.5%	6.5%	6.8%	6.1%	6.3%	6.2%
Dartmouth	7.8%	7.6%	7.8%	7.7%	4.1%	6.5%	6.1%	6.3%	6.1%	5.8%	5.0%
Lowell	7.3%	7.4%	7.7%	6.8%	4.9%	6.4%	6.7%	6.4%	6.2%	6.0%	5.8%
Chan Medical	6.0%	5.1%	5.5%	4.9%	2.1%	5.7%	6.4%	6.1%	6.4%	5.6%	5.5%
Central	3.4%	2.8%	4.5%	4.4%	4.2%	4.9%	4.7%	2.4%	4.5%	4.6%	4.6%
University	6.6%	6.5%	6.6%	6.4%	3.6%	6.0%	6.3%	6.1%	6.0%	5.8%	5.7%

Note: Principal restructure resulted in improvement of this ratio in FY21



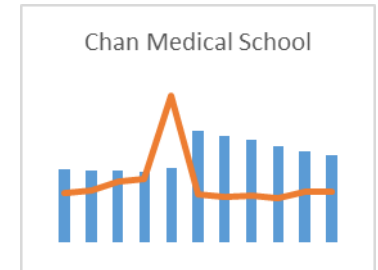
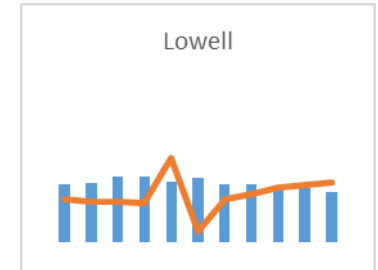
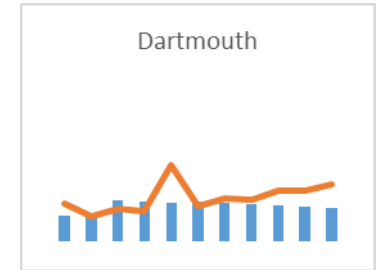
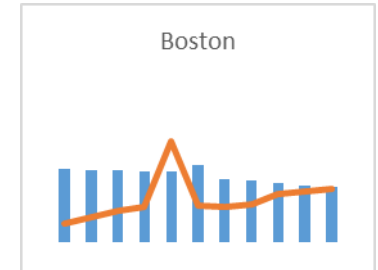
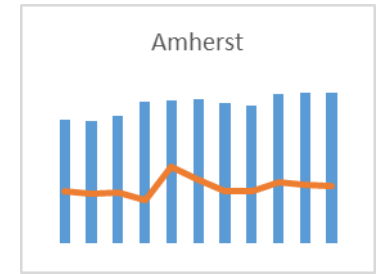
Debt Service Coverage



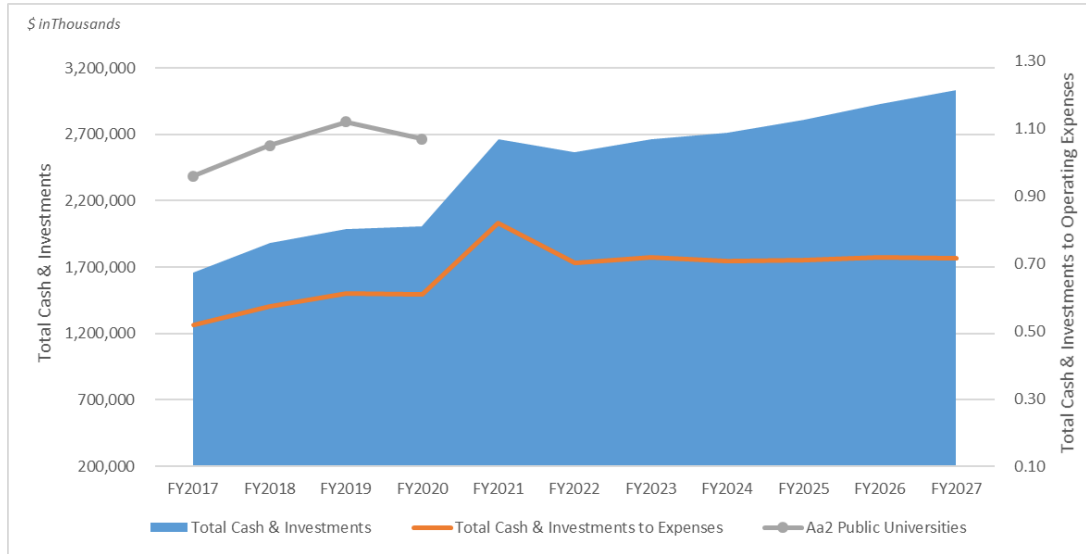
	Actual					Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Amherst	2.3	2.2	2.3	2.0	3.2	2.7	2.3	2.3	2.6	2.5	2.5
Boston	1.1	1.4	1.6	1.7	4.0	1.8	1.7	1.8	2.2	2.3	2.4
Dartmouth	1.8	1.3	1.6	1.5	3.1	1.7	2.0	1.9	2.2	2.2	2.5
Lowell	2.0	1.9	1.9	1.9	3.4	0.9	2.0	2.2	2.4	2.5	2.6
Chan Medical	2.2	2.3	2.6	2.7	5.6	2.2	2.1	2.1	2.0	2.3	2.3
Central	5.7	7.0	2.8	3.0	4.0	2.6	2.2	4.0	1.9	1.7	1.6
University	2.1	2.1	2.1	2.0	3.8	2.4	2.4	2.5	2.7	2.7	2.7

Excludes impact of GASB 68 & 75;

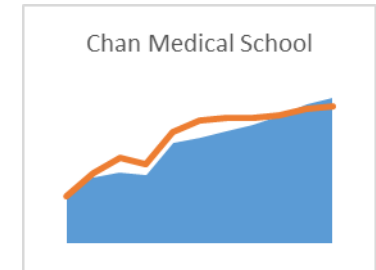
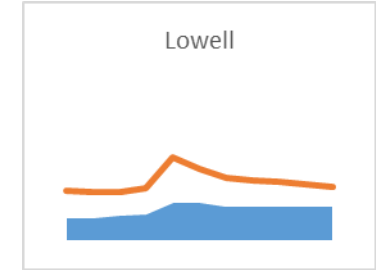
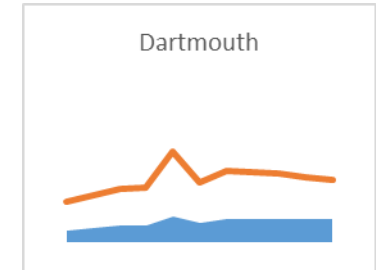
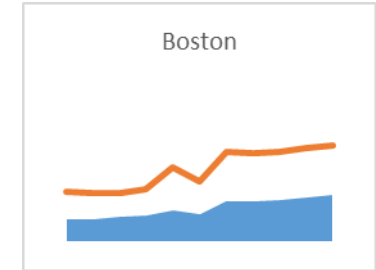
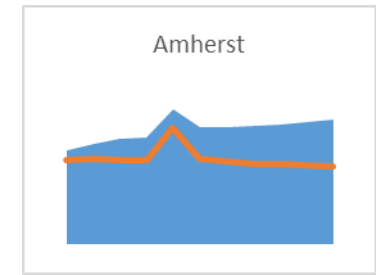
Note: Principal restructure resulted in improvement of this ratio in FY21



Total Cash & Investments

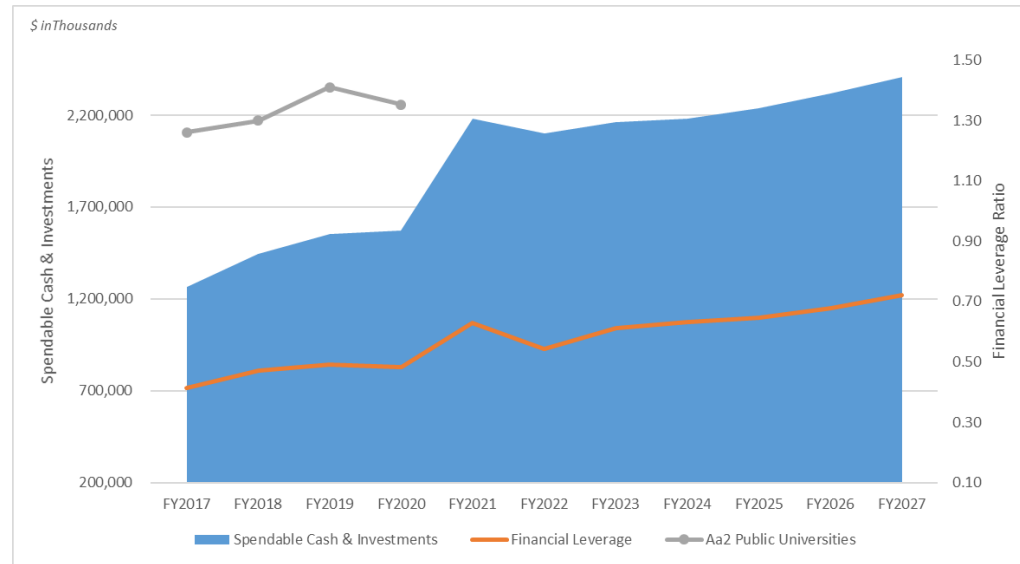


	Actual					Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Amherst	0.60	0.61	0.60	0.60	0.79	0.61	0.59	0.58	0.58	0.57	0.56
Boston	0.43	0.42	0.42	0.44	0.59	0.50	0.69	0.69	0.70	0.71	0.74
Dartmouth	0.34	0.38	0.42	0.42	0.64	0.46	0.53	0.52	0.51	0.49	0.48
Lowell	0.43	0.42	0.42	0.44	0.65	0.57	0.52	0.50	0.49	0.47	0.46
Chan Medical	0.38	0.52	0.61	0.57	0.76	0.83	0.84	0.84	0.86	0.90	0.91
Central	1.81	2.03	2.18	2.15	2.91	2.42	2.35	2.30	2.26	2.22	2.17
University	0.52	0.57	0.61	0.61	0.82	0.70	0.72	0.71	0.71	0.72	0.72



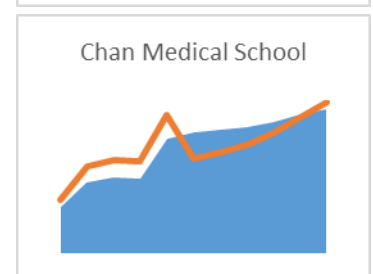
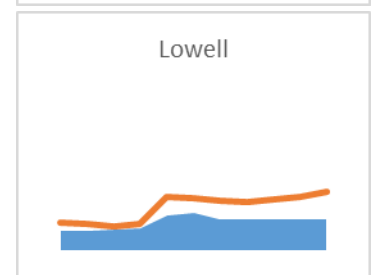
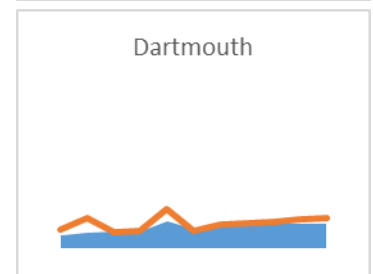
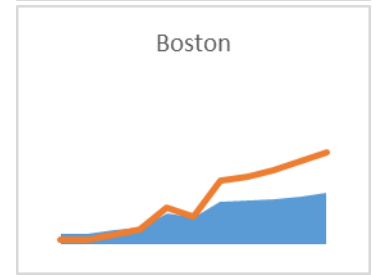
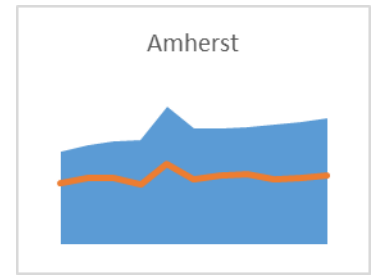
Excludes impact of GASB 68 & 75

Financial Leverage



	Actual					Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Amherst	0.50	0.54	0.54	0.49	0.63	0.53	0.55	0.56	0.53	0.54	0.55
Boston	0.12	0.12	0.16	0.19	0.31	0.26	0.48	0.50	0.54	0.59	0.65
Dartmouth	0.21	0.28	0.19	0.20	0.31	0.20	0.24	0.25	0.26	0.27	0.28
Lowell	0.26	0.25	0.24	0.26	0.41	0.41	0.39	0.40	0.40	0.38	0.39
Chan Medical	0.45	0.67	0.71	0.89	1.01	0.72	0.76	0.81	0.89	0.99	1.09
Central	2.35	2.46	2.72	2.64	2.92	2.80	2.83	2.83	2.94	3.07	3.21
University	0.41	0.47	0.50	0.48	0.68	0.53	0.60	0.62	0.64	0.67	0.70

Excludes impact of GASB 68 & 75
Does not reflect Moody's new methodology



Key Financial Ratios Defined

Operating cash flow margin – Measures net income (before non-cash expenses) relative to operating revenue to support investments

$$\frac{(\text{Total revenues} - \text{total expenses}) + \text{depreciation} + \text{interest}}{\text{Total revenues}}$$

Operating margin – Indicates the excess margin (or deficit) by which annual revenues cover annual expenses (excluding unrealized gains or losses)

$$\frac{\text{Total revenues} - \text{total expenses}}{\text{Total revenues}}$$

Debt burden – Compares the relative cost of borrowing to overall expenditures

$$\frac{\text{Debt service (P\&I)}}{\text{Total expenses}}$$

Debt service coverage – Measures the ability to make debt service payments from annual operations

$$\frac{(\text{Total revenues} - \text{total expenses}) + \text{depreciation} + \text{interest}}{\text{Debt service (P\&I)}}$$

Total Cash & Investments to expenses – Indicates the university's financial flexibility and resilience, and its ability to generate investment income.

$$\frac{(\text{Cash \& investments} - \text{debt service reserve funds})}{\text{Total expenses}}$$

Financial Leverage Ratio – Measures the ability to repay bondholders from wealth that can be accessed over time or for a specific purpose

$$\frac{\text{Spendable Cash \& Investments}}{\text{Total Debt}}$$

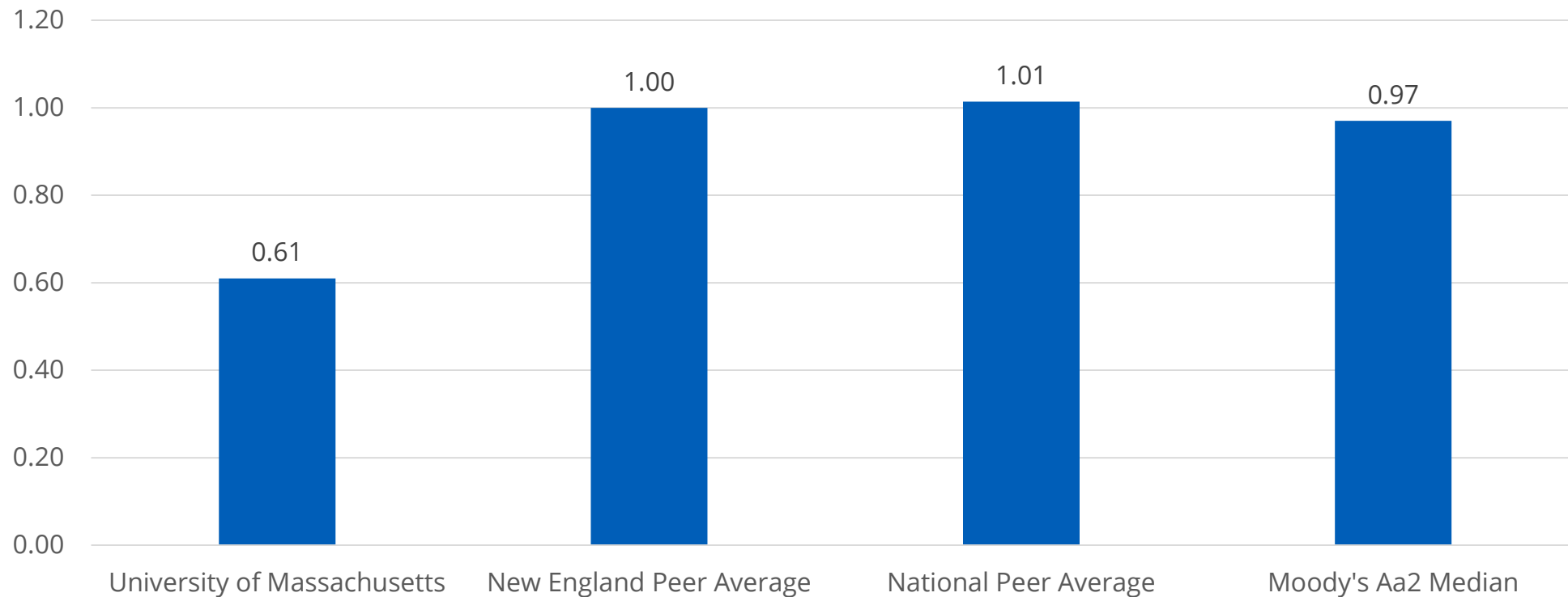
Peer Analysis



Financial Reserves Low Compared to Industry Peers

- Moody's Investors Service notes in its last rating report dated October 1, 2020 that the University has financial reserve levels that are "while adequate, will remain below peer levels when compared to both debt and operations."

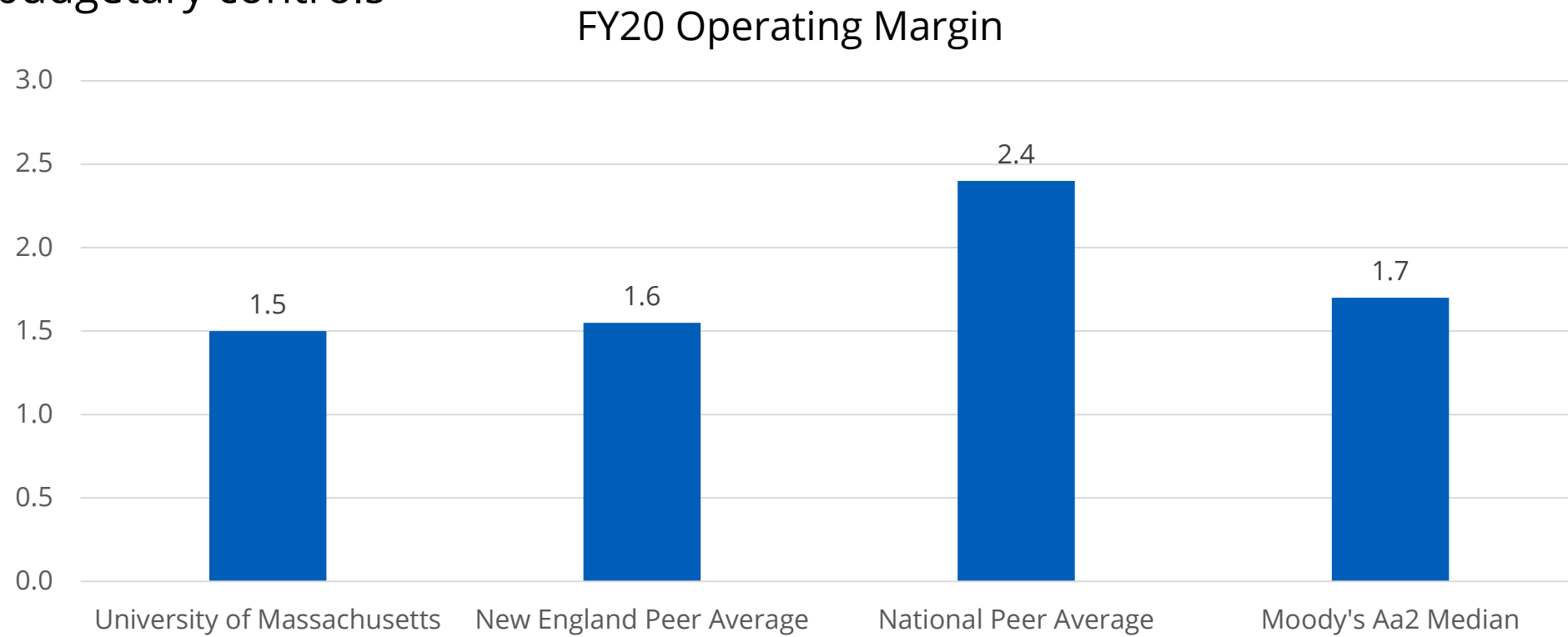
FY20 Cash & Investments to Operating Expenses



Source: Moody's Investor Services MFRA Database
New England Peers: University of Connecticut, University System of New Hampshire, University of Rhode Island, University of Vermont, University of Maine System
National Peers: University of California, University of Colorado, University of Illinois, University System of Maryland, University of Missouri, University System of New Hampshire, State University of New York

Strong and Improved Management of Operations

- In spite of weak financial reserves, Moody's notes strength of management for operating performance noting "improved multi-campus fiscal oversight and multiyear planning for financial stability has been essential to manage the financial disruptions associated with the coronavirus pandemic" further noting "leadership's strong and improving oversight and budgetary controls"



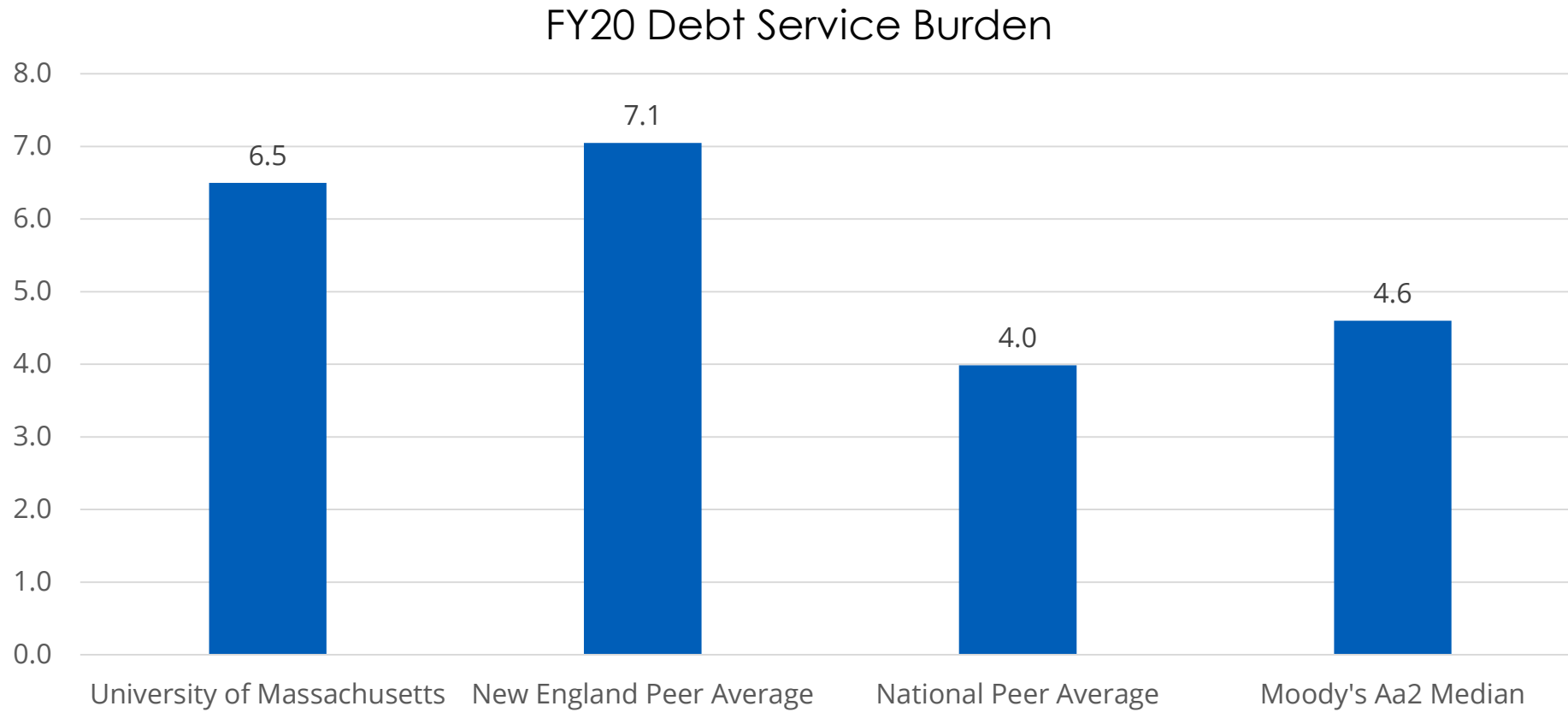
Source: Moody's Investor Services MFRA Database

New England Peers: University of Connecticut, University System of New Hampshire, University of Rhode Island, University of Vermont (University of Maine System excluded due to incomplete data)

National Peers: University of California, University of Colorado, University of Illinois, University System of Maryland, University of Missouri, University System of New Hampshire, State University of New York

University Annual Debt Burden High

- Moody's notes in its October 1, 2020 report that the University's "high debt burden and extensive capital needs" will cause the University's debt service coverage to lag peers for several years.



Source: Moody's Investor Services MFRA Database
New England Peers: University of Connecticut, University System of New Hampshire, University of Rhode Island, University of Vermont (University of Maine System excluded due to incomplete data)
National Peers: University of California, University of Colorado, University of Illinois, University System of Maryland, University of Missouri, University System of New Hampshire, State University of New York

#7. Enterprise Risk Management

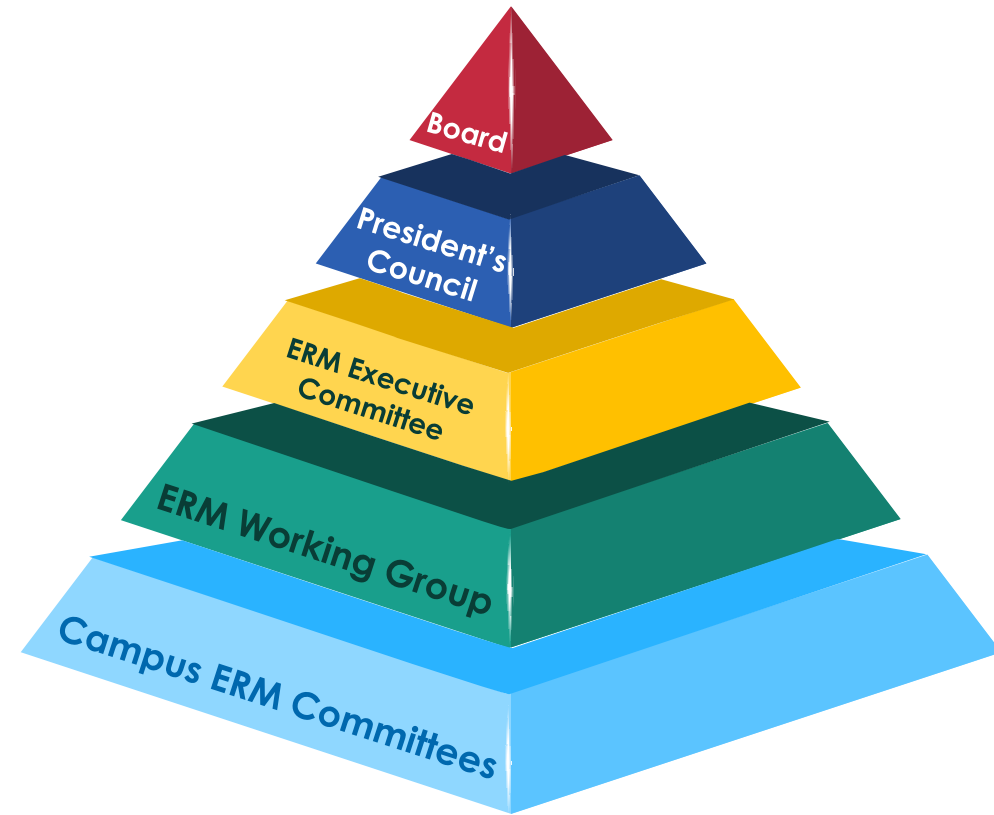


University of Massachusetts

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

UMass System-wide Enterprise Risk Management Program

- Coordinates system-wide ERM framework through formal governance structure
- Regularly collaborates with:
 - Campus risk and emergency management partners
 - Key partners such as OGC and Internal Audit
 - Additional subject matter experts
- Facilitates process to maintain system-wide Risk Registry
 - Proactively identify, assess & prioritize risks across the University
- Provides transparency and shared understanding of risk across the system at both leadership and operational levels
- Builds capacity and networks to address critical risks, and determines the effectiveness of those strategies
- Aligns with ISO risk management guidelines (31000)



ERM Governance Structure

FY21–FY22 ERM Program Cycle



The system-wide ERM program has an established program cycle that has been enhanced to include the assessment of mitigation strategies in addition to identifying, assessing, and prioritizing risk and implementing activities to mitigate risks.

UMass ERM Program is at Medium Program Maturity

Progress since FY20: ERM Program moved from mid-range to high range of medium maturity.

- Shifting from reactive to proactive management of risks
- Implementing a regular cycle of identifying, assessing, mitigating and monitoring risks
- Conducting quarterly meetings with the ERM Executive Committee to inform leadership
- Working toward:
 - Increasing visibility of risk mitigation activities
 - Ingraining risk management into everyday culture and activities

Model from AGB; criteria from UE's "Use a Maturity Tool to Advance the ERM Process"

Low-Maturity	Medium-Maturity	High-Maturity
<ul style="list-style-type: none"> • ERM is reactive to the latest campus crisis or hot topic. • The ERM process is ad hoc and vulnerable to personalities or bias. • The risk management department is responsible for risk treatment. • Institutional leaders participate minimally or unenthusiastically. • Risk treatment focuses on fixing issues. 	<ul style="list-style-type: none"> • ERM reacts to past crises while identifying risks to mitigate before they occur. • The ERM process follows the four main steps (identify, assess, plan for/mitigate and monitor risks) and repeats regularly. • Institutional leaders treat ERM as a necessary function to protect the institution. • Risk management is often undertaken by leaders at the department level, but accountability could be better. 	<ul style="list-style-type: none"> • ERM identifies emerging risks. • Risks to institutional strategies are considered before adoption. • The ERM process incorporates the four main steps (identify, assess, plan for/mitigate and monitor risks) and repeats regularly. • Risk management is the responsibility of ERM participants who are held accountable for risk treatment. • Institutional leaders develop a risk-aware culture. • ERM manages risks to the institution's mission across silos.



Continued Program Maturation

We engaged external experts and key ERM stakeholders across the University to review and enhance our risk assessment tools

- With support from external experts, the campuses and key ERM partners, we expanded our risk assessment tools. Our tools are now far more comprehensive and have a much stronger focus on system-wide impacts.
 - Enhanced our Consequence Rating tool (formerly known as “Impact Rating” tool) to include the evaluation of legal, compliance and workforce issues in addition to impacts risk may have on operations, life safety, fiscal health and the University’s reputation.
 - Updated our Likelihood Rating tool (formerly known as “Probability Rating” tool) to better capture the possibility of the University experiencing a risk.
 - Reassigned responsibility of the Urgency Rating tool, which assesses the need to prioritize risk, from the ERM Working Group to the ERM Executive Committee.
- The rating assessments are compiled to generate a single Risk Score for each risk.

Compiling Risk Score

- ERM Program assesses risks by rating risks across three factors:



- ERM Program ranks risk by calculating a Risk Score
 - The Risk Score is generated by multiplying the outcomes of the risk rating tools to rank risks



Continued Maturation

We engaged external experts to develop a tool to measure the effectiveness of our mitigation strategies on risk.

- Documenting and assessing risk treatments are critical components of a mature ERM Program
 - Allow the University to track the treatments for each risk, as well as their progress and the effects the treatments have on the risk
 - The University is able to assess whether or not they have the ability to reduce their exposure to risk
- In addition to enhancing the risk assessment tools, we are in the process of developing capability to measure the effectiveness of our mitigation strategies on our identified risks.
- This tool will provide great benefit to the University by enabling us to quantify how well we are reducing our exposure to identified risks.

UMass COVID Planning & Response



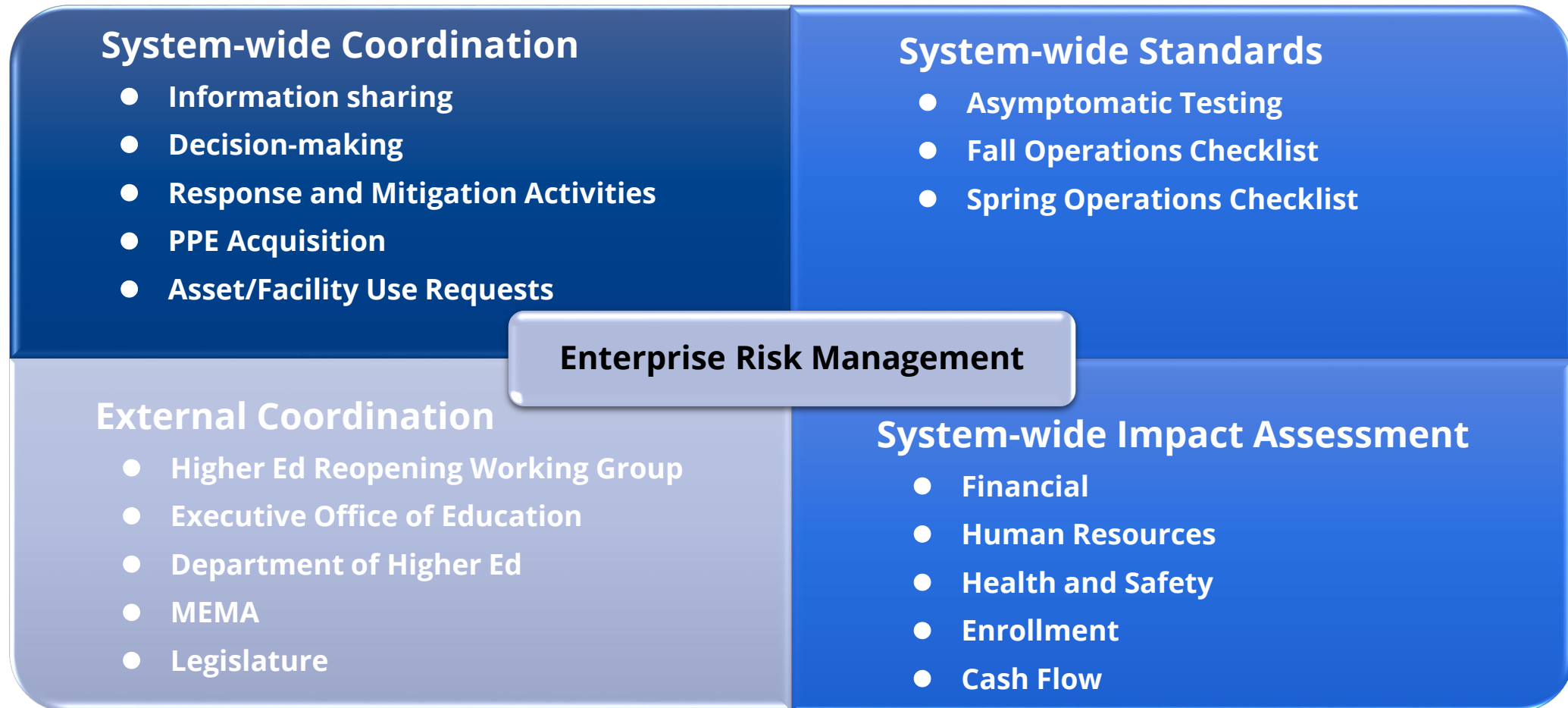
COVID-19 Tested Our Enterprise Risk Management Program

ERM Program provided a central coordination point/resource for simultaneous response to a significant number of FY20 risks, underscoring the maturity of the program

FY20 Risk Registry

Risks Impacted by COVID-19			Risks Not Impacted by COVID-19
Academic Quality and Standards	Enrollment	Information Security	Building Code Compliance
Alcohol and Substance Abuse	Environmental, Health & Safety Regs	International Activities	Clery Act Compliance
All-hazards Planning	Facilities and Deferred Maintenance	IT Disaster Recovery	Fraud, Waste and Abuse
Attract/Recruit/Retain Faculty/Staff	Financial Sustainability	Labor Relations	Minors on campus
Continuity Planning	Health Insurance Requirements	NCAA Regulations	Radio Infrastructure
Crisis Comms Coordination	Immigration Rules	Oversight of Student Organizations	Sexual Assault Policies & Procedures
Data Management	Immunization Requirements	Student Health & Mental Health Support	Unauthorized Use of Brand
Employment Law/Regulations	Information Privacy	Vendor Management	Uninsured Loss

Enterprise Risk Management as an Operational Tool for System-wide COVID-19 Response



COVID-19 Systemwide Response Coordination

Group	Members	Frequency
Senior Leadership	President Meehan, Chancellors, UMPO Senior Staff	Daily
Administration and Finance Leadership	UMPO, Vice Chancellors of A&F from each campus	2-3 times per week
Human Resources Leadership	UMPO, HR Director from each campus	2-3 times per week
Health and Safety Staff	UMPO, EH&S and/or emergency management from each campus	Once per week
Bursars and Controllers	UMPO and each campus	2-3 times per week
Communications	UMPO and each campus	Daily
Facility Directors	UMPO and each campus	Weekly
Executive Office of Education and Department of Higher Education	UMPO and other higher education segment leads	Daily

Sampling of COVID Guidance, Dashboards and Reports

UMass Weekly Surveillance Testing Report
Reporting Period: April 25 - May 1, 2021

	Amherst						Boston						Dartmouth					
	Total Tested	Negative	Positive	Positivity Rate	Quarantine	Isolation	Total Tested	Negative	Positive	Positivity Rate	Quarantine	Isolation	Total Tested	Negative	Positive	Positivity Rate	Quarantine	Isolation
Residential Students	6,965	6,949	16	-	10	14	244	244	0	-	-	-	262	260	2	-	4	2
Off-Campus Students	8,439	8,435	4	-	-	-	328	327	1	-	-	-	135	135	0	-	0	0
Staff/Faculty	2,802	2,801	1	-	-	-	212	212	0	-	-	-	143	143	0	-	0	0
Totals for Reporting Period	18,206	18,185	21	0.12%	10	14	784	783	1	-	-	-	540	538	2	-	4	2
Totals for Spring 2021*	275,379	275,377	2,002	0.65%	-	-	11,373	11,311	62	-	-	-	4,439	4,439	0	-	0	0
Cumulative Totals	478,484	475,976	2,500	0.52%	-	-	18,693	18,545	148	-	-	-	5,979	5,979	0	-	0	0

	Lowell						Medford					
	Total Tested	Negative	Positive	Positivity Rate	Quarantine	Isolation	Total Tested	Negative	Positive	Positivity Rate	Quarantine	Isolation
Residential Students	1,038	1,032	6	-	-	-	-	-	-	-	-	-
Off-Campus Students	800	799	1	-	-	-	-	-	-	-	-	-
Staff/Faculty	385	384	1	-	-	-	-	-	-	-	-	-
Totals for Reporting Period	2,223	2,215	8	0.36%	0	0	1,775	1,773	2	-	-	-
Totals for Spring 2021*	39,843	39,727	116	0.29%	-	-	30,467	30,432	35	-	-	-
Cumulative Totals	57,351	57,117	234	0.41%	-	-	86,370	86,217	153	-	-	-

	System-wide Totals					
	Total Tested	Negative	Positive	Positivity Rate	Quarantine	Isolation
Residential Students	8,509	8,485	24	-	14	16
Off-Campus Students	9,702	9,696	6	-	0	0
Staff/Faculty	3,511	3,509	2	-	-	-
Totals for Reporting Period	23,497	23,463	34	0.14%	14	16
Totals for Spring 2021*	377,911	375,787	2,124	0.57%	-	-
Cumulative Totals	617,877	615,322	2,555	0.49%	-	-

*Spring 2021 testing numbers are cumulative beginning January 17, 2021.

Weekly Surveillance Testing Reports for BOT and Leadership

Daily Situational Awareness Reports for Leadership

Monthly Operational Status Reports for BOT

Monthly Status Dashboard
UMass Campus Spring 2021 Operations
FEBRUARY 2021

No.	Action	Status	Explanation (for yellow or red ratings)
I.	Are there any changes to your residential student population for Spring 2021?	●	
II.	Are there any changes to your COVID-19 point of contact or team?	●	
III.	Are there any changes to protocols for daily health monitoring of students, faculty and/or staff?	●	
	Are there any challenges with implementing campus protocols for daily health monitoring of students, faculty and/or staff?	●	
	Are there any changes to your surveillance testing program?	●	
IV.	Are there any significant increases in positive cases?	●	The first
	Are there any challenges with implementing your surveillance testing program?	●	
	Are there any changes to the campus' isolation protocols?	●	Two qu do th
	Has the campus needed to increase designated on-campus isolation space?	●	
V.	Is the campus nearing capacity for on-campus isolation space?	●	
	Are there been any changes to the campus' quarantine protocols?	●	
	Has the campus needed to increase designated on-campus quarantine space?	●	

UMPO Senior Staff
COVID-19 – End of Day Update
April 28, 2020

Situation
COVID-19 Cases

- Cases for COVID-19 continue to increase globally, nationally and in Massachusetts. The United States continues to have more cases than any other country. Massachusetts has flattened it but a downward trend has not yet been realized.

Geographic Area	Cases (change from previous report*)	Deaths (change from previous report*)	Tests Conducted (change from previous report*)
Global	3,094,829 (+74,712)	215,461 (+5,662)	N/A
United States	981,246 (+23,371)	55,258 (+1,336)	5,628,371 (193,431)
Massachusetts	58,302 (+1,840)	3,153 (+150)	254,500 (+9,613)

Last report was issued 04/27/2020

- MDPH's daily dashboard can be found [here](#).
- Percentage of Positive Cases: a significant indicator of a true decrease in COVID-19 activity is sustained decrease in the percentage of cases tested being positive. Below is a table of Massachusetts percentage of positive cases over the previous two weeks.

Massachusetts Percentage of Positive Cases for Previous 14 Days												
Date	4/15	4/16	4/17	4/18	4/19	4/20	4/21	4/22	4/23	4/24	4/25	4/26
Percent of Positive Cases	32%	26%	27%	24%	33%	19%	25%	34%	21%	26%	20%	17%

- Weekly COVID case counts by community can be downloaded [here](#) (as of 04/22/20; updated Wednesdays by MDPH).

Number of Individuals Quarantined in Massachusetts
(as of 04/21/2020; updated on Wednesdays by MDPH)

COVID-19 Response – UMPO End of Day Update – April 28, 2020
Page 1

University of Massachusetts
Spring 2021 Campus Operations
COVID-19 Guidance and Planning Checklist

Campus Operations Guidance and Checklists for each Semester

#8. UMass Efficiency & Effectiveness



University of Massachusetts

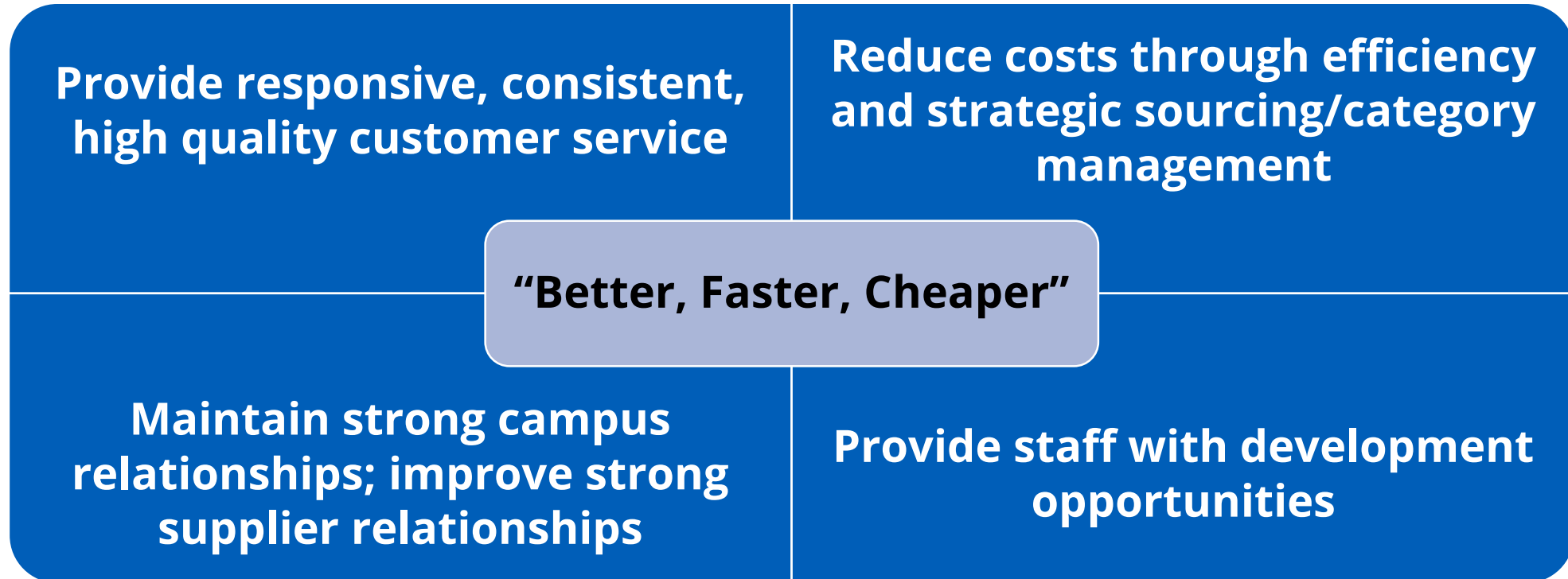
Amherst • Boston • Dartmouth • Lowell • Medical • Law • Online

Key Highlights

- Unified Procurement Services Team (UPST) recently celebrated two years of creating efficiency and effectiveness for the University. The team was established in January 2020.
- Since UPST's launch, \$33.9 million in cost savings have been achieved through more than 170 initiatives across all five campuses.
- To continue achieving its mission of providing “better, faster, cheaper” services to the University, UPST has developed a robust pipeline of process improvements and cost savings projects.
- UPST continues to focus on driving system-wide contracts, creating efficiencies for all campuses.
- UMass is committed to pursuing innovative shared services models to manage operations and deliver a world-class education to our students.

UPST Goals and Objectives

Key Objectives



UPST Objectives Driving Achievements

Process Enhancements (BETTER)

Strategies Identified:

- Streamlined PO's, etc.
- External SLA's and meaningful KPI's
- Timelines institutionalized in contracts
- Robust warranties
- Supplier Diversity considerations

Tactics Achieving Objectives:

- Strengthening local supplier diversity partnerships: BECMA, (Pacesetters (GBCC), GNEMSDC)
- Enhanced contracting practices and tools i.e. better terms and conditions, standardized templates and processes, and automation of manual processes

Ease of Administration (FASTER)

Strategies Identified:

- Approved UMass product catalogues
- Vendor Consolidation
- Enterprise wide agreements and polices
- POC's (Proof of concepts)
- Greater adoption of automation

Tactics Achieving Objectives:

- Leveraging supplier technology to drive cost savings and process enhancement in 3rd Party Managed Print Services (SupplyLogic Partnership)
- Integrated sourcing/bid technology with contract and purchasing for increased efficiency & visibility
- Automated the purchase order change request process

Cost Discipline (CHEAPER)

Strategies Identified:

- Predetermined Margins/ Markups
- Volume based pricing/ Rebates
- Market Intelligence to utilize competitive benchmarks, etc.
- Pre-emptive, UMass system wide pricing requirements

Tactics Achieving Objectives:

- Over 170+ sourcing initiatives conducted since inception
- Created system-wide cost savings and contracts while rationalizing supplier base, i.e. IT VAR (for technology purchases)
- Created potential revenue streams from GPO (MHEC) partnerships

FY2021 UPST by the Numbers

As UPST stabilizes operations, the focus on cost savings and process improvement continues



\$797M in total annual spend



8K+ travel authorizations processed



\$22.3M in actualized savings



100+ sourcing bid events completed



208K invoices processed



2.6K contracts created



135K purchase orders processed



25K+ customer service requests resolved



17K+ active suppliers



6.4K+ suppliers set-up

Cost Savings & Other Benefits

Over 170 initiatives across all 5 campuses have saved \$33.9 million between January 2020 and June 2021

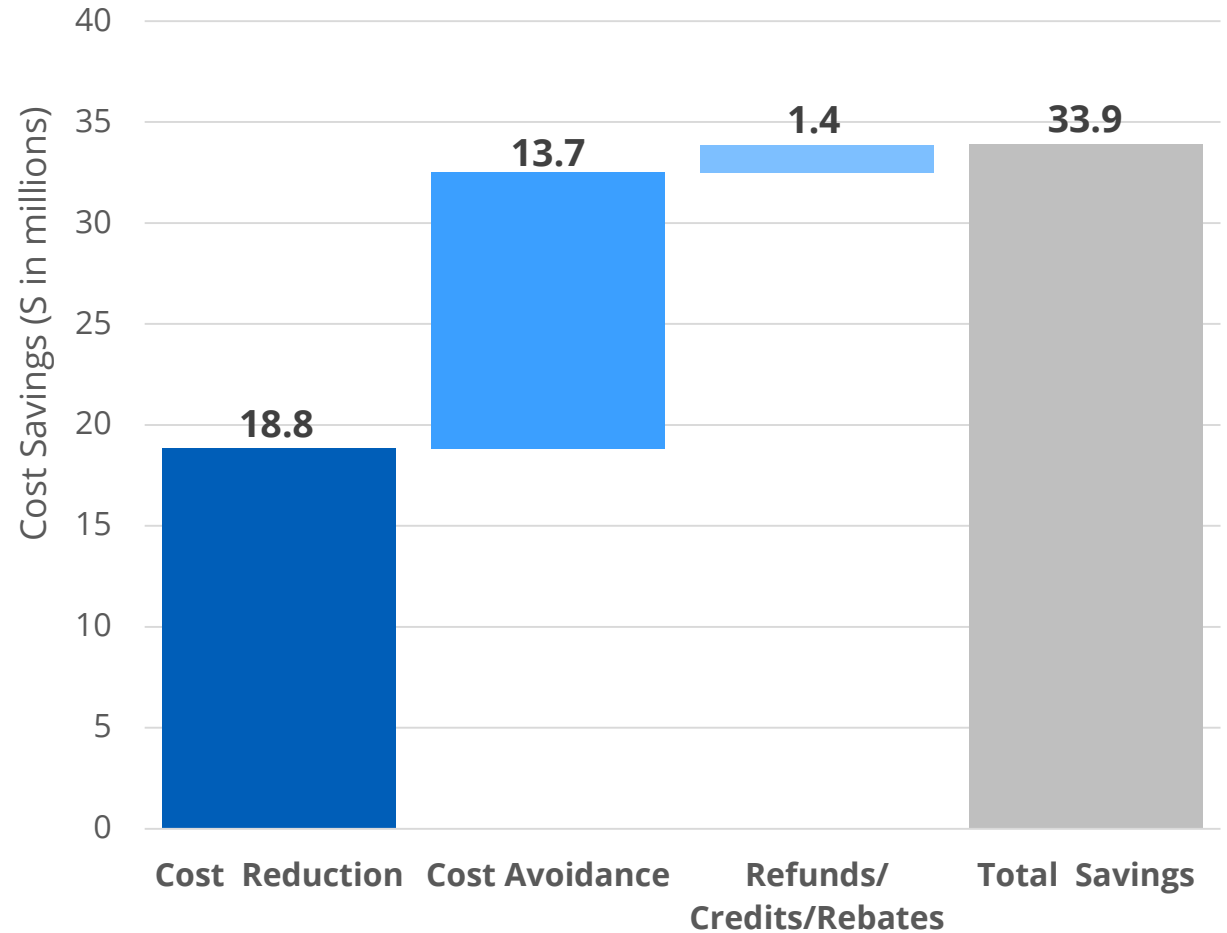
\$33.9 million

FY20: \$11.6 million

FY21: \$22.3 million

System-wide benefits:

- **2X** target savings (\$16.5M)
- **3X return on investment** in UPST to date (\$10.6M)
- Savings equivalent to **8%** tuition & fee increase



Cost Savings Details

UPST continues to pursue cost benefits through systemwide engagements

Spend Category	FY20 Savings	FY21 Savings	Total Savings
Capital	4,456,739	6,161,525	10,618,264
General Services & Supplies(1)	1,479,612	3,974,883	5,454,495
IT/Telecom	1,855,790	4,846,920	6,702,710
Marketing & Advertising	-	648,342	648,342
Maintenance, Repair, Operations	232,963	391,461	624,424
Professional Services	21,834	1,382,900	1,404,734
<i>Subtotal</i>	8,046,938	17,406,031	25,452,968
Energy(2)	3,526,000	4,900,000	8,426,000
Grand Total	11,572,938	22,306,031	33,878,968

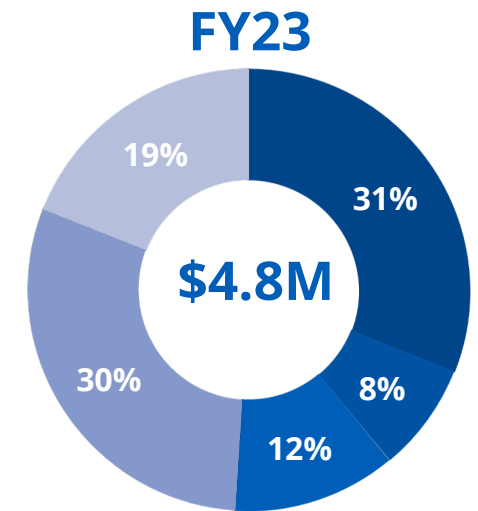
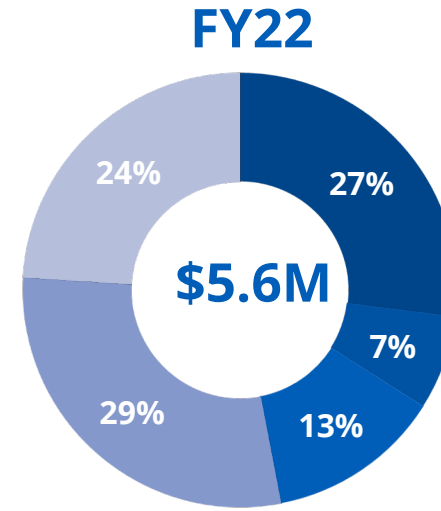
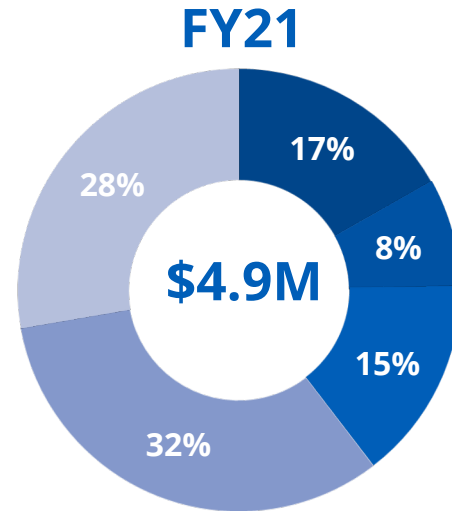
(1) Library efficiency projects included in General Services spending category;

(2) Projected savings from energy credits. Sub-set of overall savings from energy contracts

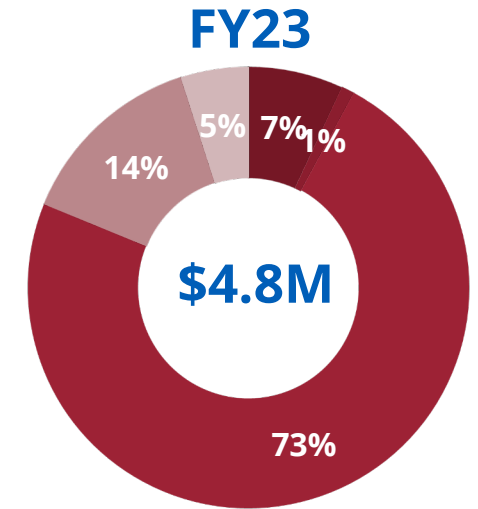
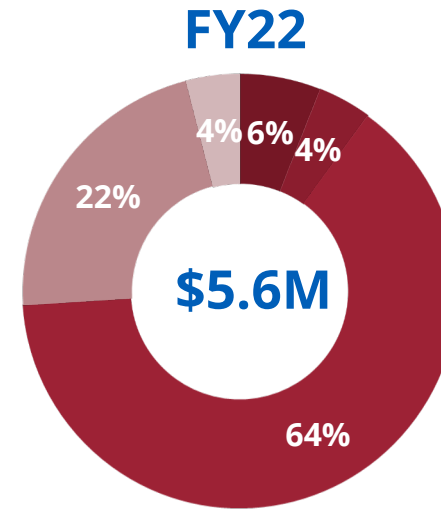
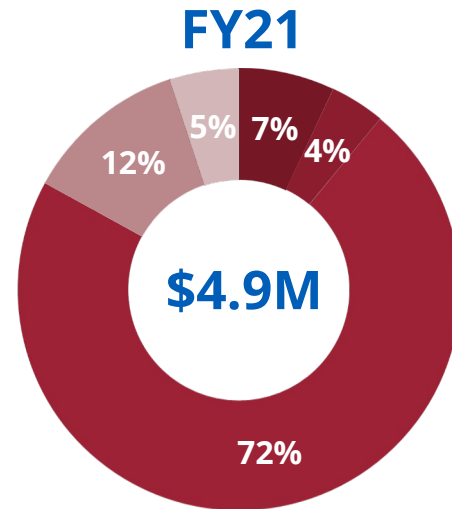
Energy Sourcing

*Locking in rates at historic lows in the market impacts FY21, FY22 & FY23**

- Campus
- UMA
 - UMB
 - UMD
 - UML
 - UMMS



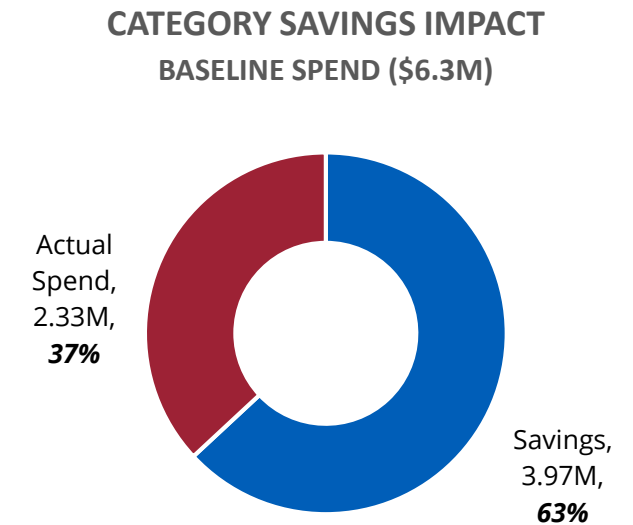
- Savings Type
- Battery Savings
 - Elec. Avoided Costs
 - NEGC Solar Credits
 - Nat. Gas Avoided Cost
 - Solar Savings



General Services & Supplies

Broad category of good and services, including travel related costs, food services, office suppliers and services

Project	Total Savings (\$)
Re-bidding of UMB Transportation (Paul Revere)	2,940,000
Equipment for Vivarium	393,806
Elsevier	327,593
Pepsi Revenue Contract	78,600
Bio-Safety Cabinets and Transfer Stations	63,587
Transportation Services for the UMD Athletic Department	49,044
All Other Projects - Under \$50K Savings	122,254
Total	3,974,883



Boston campus leverages UMass Terms to reduce cost: Transportation Contract Adjustments

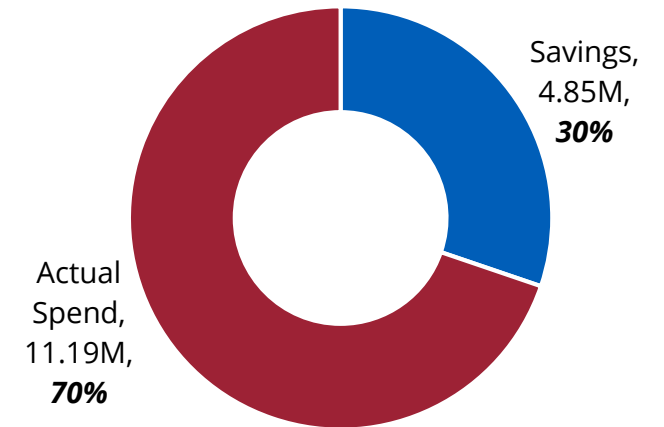
Long before the COVID pandemic, the UMass Office of General Counsel included contract provisions protecting the University's interest in the event of a "pandemic." When the UMass Boston campus had to shut down, they were left with a multi-million dollar shuttle bus contract that was no longer necessary. By leveraging the contract language that favors UMass, UPST was able to quickly cancel the contract on behalf of the campus, resulting in millions in one-time savings.

Information Technology

Represents business applications & support, IT consulting, software licenses, IT & telecom equipment leasing

Project	Total Savings (\$)
Boston Network Upgrade Project	1,393,652
UMass Chan Innovation Artery (Research Network & Storage	1,031,443
Dell Hardware MSA	773,000
Oracle License Negotiation	454,119
Jaggaer Procurment System Renewal	289,966
Salesforce CRM Consulting for 'Recruitment 2.0'	232,005
Echo360 Negotiations	177,000
Core Router RFP - UMass Dartmouth	141,082
Jaggaer Procurement Tech Contract Renewal	101,426
All Other Projects - Under \$100K Savings	253,227
Total	4,846,920

CATEGORY SAVINGS IMPACT
BASELINE SPEND (\$16.04M)



Information Technology: Project Spotlight

Moving the immovable: Oracle License Negotiation

Identified as an area of opportunity in early 2020 in response to cost saving measures to offset losses due to COVID, UPST developed and implemented a strategy to engage in negotiations with Oracle. Oracle provides PeopleSoft, a mission-critical financial system to University Information Technology Services (UITs). Without the ability to change suppliers, Oracle has a virtual monopoly, leaving UPST with little leverage. With the goal of right sizing our agreement, UPST worked to carefully renegotiate our contract. Finalized in FY21, the Oracle negotiation resulted in a 43% reduction in the maintenance cost of PeopleSoft, saving UITs \$450k.

Complex needs require complex solutions: Boston Network Upgrade, the devil is in the details

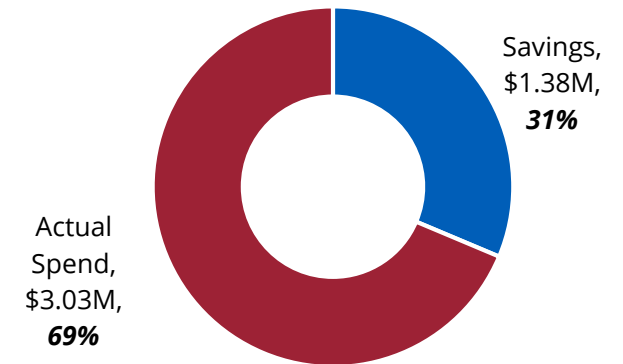
The IT networks that support our campuses are incredibly complex systems. UMass Boston engaged UPST to competitively source a major refresh of its network. Working with the campus, UPST launched an equally complex bid, enabling the campus to receive bids from key players in the industry that were scalable to meet the campus requirements while controlling costs, resulting in \$1.4M in savings back to the Boston campus.

Professional Services

Business and facilities related services (non-IT), including consulting, marketing, legal, HR services

Project	Total Savings (\$)
System-wide C19 Testing	755,000
Admin Staff Review for CNS	297,200
Property Recovery	123,644
Oracle Analytics Cloud Assessment & Migration	87,231
Costello Athletic Center Branding	67,705
All Other Projects - Under \$50K Savings	52,120
Total	1,382,900

CATEGORY SAVINGS IMPACT
BASELINE SPEND (\$4.4M)



Departmental Collaboration Posts Win For UML Athletics: Costello Athletic Center Branding

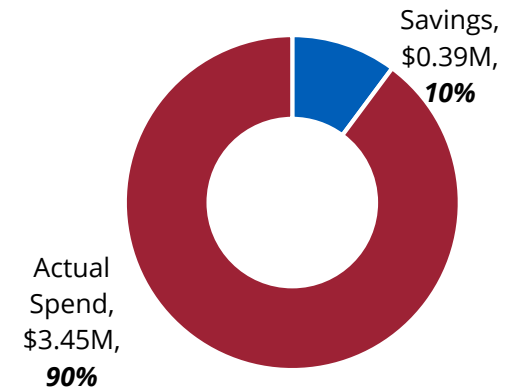
UMass Lowell Athletics reached out to UPST to source a supplier to oversee branding services related to the renovation of the Costello Athletic Center. As the home of UMass Lowell Athletics, strategically displaying the UMass Lowell River Hawks Logo throughout the Costello Center drives the UMass brand on campus and in the community. This was a complex undertaking that involved UPST collaborating with both the UMass Lowell Facilities and Athletics departments, with the competitive bid yielding \$68K in savings.

Maintenance, Repair & Operations

Goods and services, including janitorial supplies, infrastructure & maintenance materials, building equipment

Project	Total Savings (\$)
MassBiologics Validation Services	147,188
Otis Elevator Contract	99,852
Outdoor Fixture, Furniture & Equipment (FF&E)	83,610
All Other Projects - Under \$50K Savings	60,811
Total	391,461

CATEGORY SAVINGS IMPACT
BASELINE SPEND (\$3.9M)



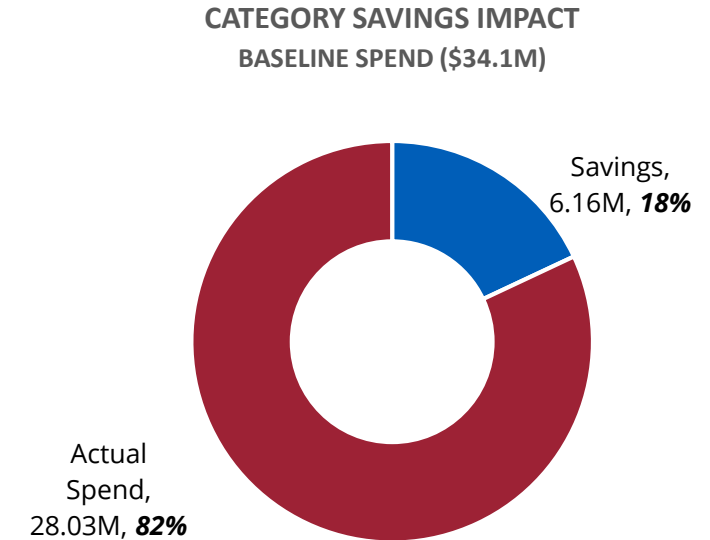
Close collaboration results in speed to market and savings: MassBiologics Validation Services

The Mass Biologics (MBL) division of the UMass Chan Medical School asked UPST to help source a vendor to aid with Validation Services at both their Fall River and Mattapan locations. The close collaboration between UPST and the team at MBL resulted in the expedited bidding of a highly specialized list of validation services required by the Food and Drug Administration. The award resulted in \$146K in savings over the course of the 1 year contract.

Capital Construction

Design and construction projects bid to support the ongoing expansion and maintenance of campus infrastructure

Project	Total Savings (\$)
McCormack Hall Roof Replacement Phase 1	1,109,000
UMass Amherst Construction Bid	853,391
UMass Boston Quinn Bldg Roof Replacement	834,899
Riverside Parking Lot - Lighting Replacement	367,000
Library Skylight Replacement	201,270
Ball Hall Fire Alarm Upgrades	200,305
John Adams Fire Alarm Upgrades - Construction Bid	195,000
Re-bid Concrete Repairs to the Campus Center Garage	164,715
UMass Chan 6th Floor Clinical wing	153,884
Maple Ave Deconstruction	153,534
All Other Projects - Under \$150K Savings	1,928,527
Total	6,161,525



Focus on maintenance to keep facilities serving our students

In FY21, UPST partnered with the Campus Facilities teams and the UMass Office of the President to address critical capital construction costs. Launching over 50 distinct projects and over \$36.5M in spend, the collaboration resulted in \$6M in savings.

Major Impact Project Highlights

System-wide impact projects initiated in FY21 yielding benefits in FY22 and beyond

IT Value Added Resellers

Opportunity

- Multiple vendors with a very long tail (1600+ vendors)
- Rationalize and standardize specifications

Negotiation Levers

- Spend concentration with key partners
- All campus CIOs participated
- Opportunity for GPO (MHEC) access
- Market intelligence that validates competitive pricing

Outcome

- **12-20%** estimated cost reduction
- **\$2.6M** in estimated annual savings
- 4 strategic vendors (w/1 WBE)
- Operational benefits such as Software Asset Management (SAM)

Third Party Print Management

Opportunity

- Ability to leverage GPO's volume
- Competitively sources print jobs
- National and MA based suppliers

Negotiation Levers










- \$8M in print spend annually
- Tiered benefit structure:
 - Up to \$3M nets 8%-10% savings
 - \$3M-\$6M nets 10%-12% savings
 - \$6M+ nets 20% savings

Outcome

- UMassD to launch program in FY22
- Phasing in other campuses after UMassD
- UMB leveraged program for discrete event, yielding **37% savings**

UPST FY21 Performance: Major Accomplishments

Continued work to stabilize foundation with more opportunities in contracts and supplier management

Service Area	UPST Performance Status	UPST Performance	Target
Procurement cost savings		\$33.9M (18 months)	\$16.5M (18 months)
Requisition to PO in 1 business day		87%	88%
Early payment discounts		87%	80%+
Late payments (over 30 days)		15%	<15%
Travel & expense approval		12 days	8 days
Supplier set-up		13.6 days	8 days
Invoices received electronically		48%	58%
Diverse supplier spend*		5.7%	N/A
Contract creation		30 days	N/A

 On track/ meets target
  Slightly below target
  Targeted for improvement
  Under design

System Office E&E Efforts



UMass System Provides a Structure Leading to Greater Efficiency & Effectiveness

Unified governance structure under one Board of Trustees, providing leadership and establishing policies and procedures for the University System

Administrative

- Consolidated financial reporting for annual audits, capital plan, budget, and financial forecast
- Independent internal audit functions
- Legal guidance & support
- One Treasury to manage all campus receipts, financial institution relationships, tax administration, and insurance
- Independent borrowing authority taking advantage of real time refinancing opportunities and just in time borrowing
- Risk identification, mitigation along with emergency response activities and reporting
- State & Federal government advocacy

Academic

- Academic program reviews and approvals
- One student system shared by Boston, Dartmouth and Lowell campuses
- Consistent UMass Online learning platform (Blackboard)

System Office – Highlights from FY21

System Office team creates system-wide efficiency and effectiveness resulting from unified coordination and strong leadership

- The System Office creates opportunities for collaboration and coordination between campuses, including shared services
- Cross-campus information sharing and best practice implementation facilitated by centralized leadership
- Efficiency and effectiveness are inherent to the mission of the System Office, with examples featured from departments in the following section of slides

University Information Technology Services

UITS delivers technology solutions and services to the President's Office and the campuses in support of the University of Massachusetts' mission of teaching, learning, and research system-wide

Improved academic technology by coordinating on Learning Management Systems (LMS) strategies, better aligned across the system and renegotiated the existing contract allowing the University to better contain costs over a longer term.

Supported success of research programs through the MGHPCC, a collaboration with Boston University, MIT, Harvard and Northeastern, to bring improved transparency and strategy to the financial model to reduce operating expenses for the University

Drove IT efficiency and effectiveness through network consolidation completed during FY20 resulting in keeping network rates flat for FY2021 despite increased demand; expect further cost avoidance and savings when planning for FY2022.

Managed IT risk mitigation efforts with rollout of Multi-Factor Authentication for mission-critical applications and mandated Cybersecurity Awareness training in order to better protect data and privacy

Office of General Counsel

*Providing internal legal guidance & support on issues related to university operations -
“Coordination, Collaboration, Cooperation, Communications & Collegiality”*

Legal spend cost efficiencies through revised standard retainer agreement for external legal services including a clause which triggers discounts upon certain legal spend being met.

Title IX Compliance

- Initiated system-wide contract for Title IX training relative to the new regulations; including membership with access to various training materials for the campuses in addition to the training of University employees
- Established a Title IX Coordinator group which meets weekly to discuss Title IX issues raised among the campuses. This allowed for the sharing of forms, policies, resources and other information providing more consistency.

Support intellectual property by filing select provisional patent applications avoiding outside counsel fees saving the University at least \$3,000 for each filing

System-wide Enterprise Risk Management Program

University's System-wide Enterprise Risk Management Program is a valuable tool for Efficiency and Effectiveness

- The University's system-wide enterprise risk management (ERM) program works collaboratively across the campuses to identify and assess risk, and develop and implement risk mitigation strategies
- The ERM program leverages knowledge and expertise across the system to identify and address risks that are common across the university
 - Fosters sharing of information, best practices and lessons learned
 - Averts duplication of effort
- The University invoked the ERM framework to coordinate system-wide response to COVID
 - Streamlined decision-making
 - Collaborative development of minimum standards and guidance for campus operations

UMass Online

Meeting the online educational needs of people locally, nationally, and internationally by offering accredited educational programs via interactive, Internet-based learning systems

UMass Online renegotiated both the Blackboard Learning Management System (LMS) contract and Pearson Extended Help Desk contract providing approximately \$1.3M in savings to the University over three years.

Blackboard Learn - Blackboard Learn is an online Learning Management System (LMS) which helps to deliver and facilitate nearly all online courses throughout the University.

- As a result of this upgrade, the campuses will have a better user experience in the following areas:
 - Zero downtime – eliminates the need for system outages for service windows
 - Automatic bug fixes/updates monthly
 - Access to Blackboard data for advanced, timely reporting
 - Greater scalability and system reliability

What's Next?



UPST Targets for FY22

- Our focus is on strengthening and achieving the targets/themes set in FY21 through stronger campus coordination and strategic partnerships with external stakeholders:
 - Increased Spend Under Management & Revenue Generation
 - Process Cycle Time Improvement
 - Enhanced Visibility (Request Status and Processes)
 - Proactive Communication, Campus Engagement and Training
 - Enhanced Supplier Diversity Practices (automation & engagement)
 - Improved Software Asset Management Practices

Future Focus: Key Themes

Over 100+ projects completed to date, with the priorities below targeted for the next 12-18 months:

Increase Proactive Strategic Sourcing

- Contract management process automation*
- Leverage external managed services partnerships
- Group purchasing organization (GPO) contracts leverage

Process Cycle Time Improvement

- Accounts payables intake automation*
- Travel and Expense Technology Design and Implementation*
- Payment/disbursement strategy roll-out

Enhanced Request Status Visibility

- Build automated spend analytics
- Additional supplier catalog enablement
- Systemwide contract Adoption Tracker development

Supplier Engagement & Development

- Supplier management program design*
- Supplier portal roll-out
- Enhanced supplier diversity program roll-out

#9. UMass Global



University of Massachusetts

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

Overview

- The initiative to grow online is driven by the Board of Trustees' vision and imperative
- A partnership for robust online programming will ensure the University can achieve its mission by filling the skills gap, expanding access to education and recovering students already lost to out-of-state, online providers
- Experts agree that the only way to succeed online is be a national player
- After an exhaustive process UMass identified Brandman University as an ideal partner
- This partnership is self funded and will not require out of pocket funds from UMass or the Commonwealth

Commonwealth's Workforce Education Gap

The Commonwealth must educate more of its population at the post-secondary level to remain a competitive destination for business and provide equal opportunities for all residents.

SKILLS GAP

Employers are increasingly concerned about finding workers with suitable skills and credentials in a highly competitive labor market.

The number of traditional students (ages 18-24) between now and 2024 will not be sufficient to meet the labor market need nor close the skills gap.

NEED FOR EDUCATION OPTIONS

Greater numbers of workers need affordable and accessible fully online education to improve their lives.

Need access for students from underserved socio-economic backgrounds and for students whose academic qualifications fall short for the UMass system.

STUDENT DEMAND

An estimated one million adult learners aged 25+ in Massachusetts (and over 30M nationwide) are considering – and need – post-secondary options. Their numbers include:

- African Americans (only a third have college degrees)
- Hispanic residents (only 25% hold degrees)
- Working adults whose educations have been sidetracked by life events
- Veterans

Strong Competition in Online Education

- Increased competition from online providers. SNHU's online programs now enroll over 100k – 2x-3x the number of Massachusetts residents served by the University – and SNHU is the provider of choice for adult learners in the state
- UMass has a unique opportunity in a growing market that complements, and even protects, the existing institutions of public higher education here in Massachusetts
- UMass is also competing against peers with established programs for working adults – University of Maryland, Penn State and Arizona State
- UMass will face accelerating declines in enrollment, which may result in painful contraction
- Massachusetts employers will face an increasingly serious challenge in finding the talent to keep their companies prosperous

The University's Path Forward

- While UMass was seen as a trailblazer in online education and distance learning, it is time for the next evolution in the University's online learning strategy
- No major campus-based online program at a public university has achieved competitive scale online programs for working adults
- Many factors, including a vastly different business model, governance issues and lateness to market, preclude our campuses from competitively scaling online programs
- A partnership with an existing online institution serving working adults as the basis for a new separately accredited online college is optimal
- A quality, existing institution gives UMass immediate access to the assets needed to meet the goal of serving working adults at scale

Partner Criteria

- UMass sought an educational institution focused on offering online degree programs for working adults, with characteristics that include:
 - Strong reputation for high-quality programs
 - Robust marketing and lead generation capabilities
 - High-quality wrap-around student services, with standardized curriculum
 - Ongoing infrastructure and course development
 - Industry-tailored programs with a focus on student outcomes
 - Proven expertise in serving working adults
- This partner will enable other UMass campuses to utilize services and modern platforms with technological capabilities to support faculty and data science that maximize student success

Why Brandman?

- Over a period of two years UMass evaluated hundreds of universities across the country and concluded:
 - **Brandman University stands out as best-in-class with recognized best practices** for recruitment and enrollment management, student wrap-around services and technical and operational infrastructure
 - Strong overall student retention rate (79% for 2018-19) and low default rates (5.1%) compared to competitors (SNHU 12.4%, Purdue 13.7%)
 - Brandman houses the capabilities to **immediately launch 80 programs**
 - Brandman's focus on health professions, education and business **aligns with strengths and workforce needs of the Commonwealth and occupational growth areas**
 - Classes are offered online and at 27 physical locations including in main building in Irvine, California and at military bases and 3 community colleges

Brandman: Benefits to UMass

- Brandman was a non-profit, 501(c)(3) university in California, regionally accredited by the WASC Senior College and University Commission (WSCUC), and recognized by the U.S. Department of Education. Brandman was affiliated with Chapman University.
- This strategic partnership immediately:
 - Provides an **accredited degree-granting institution**
 - Creates a robust and scalable platform to **build new degree programs**
 - Provides a **service and technology platform** to deliver programs more efficiently and effectively
 - Introduces employer-funded degree programs and **Competency-Based Education (CBE)**
 - Extends national partnerships with well-known brands like **Discover, Walt Disney Company, Walmart**
 - Secures a growing student pipeline of **25,000 degree and certificate students from 45 states**

Annual Financial Reporting

- UMass Global is a separate 501(c)(3) in California
- UMass Global is a blended component unit of the University of Massachusetts (similar to UMBA and WCCC)
- No separate financial statements will be issued by UMass Global
- Detailed financial reporting to UMass Global Board of Regents
- The audit of the financial information produced by UMass Global will be included in the audit of the University of Massachusetts (similar to WCCC)

#10. Academic Quality



University of Massachusetts

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A World-Class Public University

UMass is committed to offering students a high-quality education and a transformative student experience.

4

Tier-One National Universities

All four undergraduate campuses
are ranked nationally



#1

Public University in New England



A World-Class Education

UMass is recognized as a national leader in academic excellence.

#33

▲ from #37 in 2015

Most Innovative
University in the
United States



#26

▲ from #52 in 2010

Among Public
Universities in the
United States

University of
Massachusetts
Amherst

#44

In national NIH funding,
**#31 among public
medical schools***



UMass Graduates Earn Strong Starting Salaries

Graduates from every UMass campus make a higher starting salaries than at least 56% of all other MA colleges and universities.

Amherst

\$62,300

The median early career salary...

Lowell

\$63,600

Higher than **69%** of all other MA schools

Higher than **72%** of all other MA schools

Boston

\$57,700

Dartmouth

\$57,700

Higher than **56%** of all other MA schools

Higher than **56%** of all other MA schools

Source: [Payscale College Salary Report 2021](#)

Faculty Excellence

The internationally renowned faculty at UMass are a driving force for revolutionary research, development and discovery.

- UMass faculty includes a Nobel Laureate, Pulitzer Prize winners, Breakthrough Prize winners, members of the National Academies of Science and Engineering and the American Academy of Arts and Sciences, an American Book Award winner and Fulbright, Guggenheim, MacArthur and Mellon fellows.
- Nine UMass Amherst researchers were named to the 2021 edition of the list of Highly Cited Researchers.
- UMass ranked 37th globally (30th in the U.S. and third in New England) in the Top 100 Worldwide Universities Granted U.S. Patents in 2018 report, with 58 patents arising out of faculty inventions in 2018 (National Academy of Inventors).
- UMass Amherst has been ranked as a “Top Producing Institution for Fulbright Scholars,” with seven faculty members teaching or conducting research on four continents.

Faculty Excellence Continued

Throughout its history, UMass faculty have been responsible for remarkable advancements in scientific knowledge.

- In 2006, UMass Chan Medical School professor Craig C. Mello and his colleague Andrew Fire were awarded the Nobel Prize in Physiology or Medicine for their discoveries related to RNA interference.
- UMass Chan Medical School's Katherine Luzuriaga was named to the 2013 TIME 100, the magazine's annual list of the world's most influential people, for her pioneering research that led to a functional cure for an HIV-infected infant.
- UMass Lowell professor Juliette Rooney-Varga has been a leader in climate change education, and is working with MIT on expanding a climate simulator to guide policy decisions. She and 6 other Lowell faculty were invited to participate in the UN Global Climate Summit (COP26) in Glasgow.
- UMass Amherst is the lead U.S. partner in the Large Millimeter Telescope located in Mexico. The LMT was a key participant in the "Event Horizon Telescope," a global collaboration of astronomers that produced the groundbreaking photograph of a black hole in 2020.
- In 2021, UMass Dartmouth Commonwealth Professor Anna M. Klobucka (Portuguese) and Associate Professor Dilshod Achilov (Political Science) were named Fulbright Scholars.

Faculty Excellence Continued

- UMass Lowell's Nouredine Melikechi is part of the NASA Mars Mission science team, focused on the Perseverance rover's study of biological and chemical molecules.
- UMass Amherst professor Ocean Vuong was named a 2019 MacArthur Fellow in recognition of his best-selling novel, "On Earth We're Briefly Gorgeous."
- In 2014, UMass Boston professor Kamal Bawa received the MIDORI Prize in Biodiversity for his research on the sustainable use of tropical forests and his promotion of societal conservation efforts.
- UMass Lowell professor Holly Yanco is the Lowell lead for a new NSF AI Institute on assisting elderly adults and their caregivers through better understanding and personalization of human-AI collaboration.
- UMass Boston Associate Professor Maria Ivanova is developing the next stage of the Environmental Conventions Index, a multi-year project that explores the implementation of multilateral environmental agreements associated with the Paris global climate agreements.

Faculty Excellence Continued

- UMass Lowell professor Liz Altman was nominated for the Thinkers50 Breakthrough Idea award, which honors researchers who had a “eureka moment” in management thinking. Altman’s work is in ecosystems in business and organizations and the future of work.
- UMass Amherst professor Martín Espada received the 2021 National Book Award for Poetry for his book *Floaters*.
- UMass Boston’s Center for Personalized Cancer Therapy is an international leader for increasing our understanding of the pathobiologies that drive cancer health disparities and applying this knowledge to improve cancer treatment in affected populations.
- UMass Amherst professor Daniela Calzetti was elected to the National Academy of Sciences in 2020 for her contributions to the field of astronomy.
- UMass Boston assistant professor Guy Numa was one of just two researchers worldwide to receive the 2016 Young Researcher Award from the European Society for the History of Economic Thought.

Faculty Excellence Continued

- UMass Boston's Sustainable Solutions Lab's research focuses on clarifying the disproportionate ways climate change is impacting different vulnerable communities and providing a foundation to create programs, policies, and projects to address these issues.
- UMass Lowell professor and poet Sandra Lim was named one of the 2021 Guggenheim Fellows. She was one of only 184 artists, writers, scholars, and scientists selected from nearly 3,000 applicants.
- Thanks to the excellence of its faculty, UMass Boston's College of Education and Human Development has made the biggest leap among the 438 education schools in the US News & World Report national rankings over the last four years, moving from 95th to 48th in the nation.
- UMass Dartmouth professor Kevin Stokesbury was named "SouthCoast Man of the Year" in 2018 for his groundbreaking research using advanced underwater video technology that has been pivotal to the fishing industry.

Faculty Excellence: Endowed Professors

Endowed chairs and professorships help attract top scholars to the university and support teaching and research efforts.

111

Endowed chairs and professorships across the university

\$183 million

Value of endowed funds for professorships and chairs

- Endowed chairs and professorships, paid for with the revenue from endowment funds, support faculty on all five campuses.

State Endowed Matching Incentive Program

- Prior to the establishment of the match program in 1997, the university had only one endowed chair/professorship.
- The recently-approved Endowment Match Program is expected to bolster additional fundraising for the university in support of the university's faculty.

#11. Campus Data



University of Massachusetts

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Amherst



About UMass Amherst

- UMass Amherst is one of the major public research universities in America. Nestled in idyllic Amherst, Massachusetts, the campus is consistently ranked among the top public research universities in the nation, and offers a rich cultural environment in a rural setting close to major urban centers.
- The mission of the University of Massachusetts Amherst is to create positive impact on the Commonwealth and the broader society we serve through education and advancing knowledge. As the flagship public university in Massachusetts, we cherish and add to the Commonwealth's long tradition of intellectual and educational leadership.



Amherst: Revenue & Expenses Trend

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY23-27	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Cumulative	Avg. Annual
Gross Tuition & Fees	513,450	541,665	562,859	586,915	596,559	600,443	612,884	637,868	656,132	684,298	713,305	738,141	15.7%	3.8%
Tuition Discounts	(139,441)	(150,824)	(151,628)	(160,429)	(170,555)	(175,856)	(173,988)	(184,425)	(191,973)	(200,814)	(210,994)	(220,878)	19.8%	4.9%
Discount Rate	27.2%	27.8%	26.9%	27.3%	28.6%	29.3%	28.4%	28.9%	29.3%	29.3%	29.6%	29.9%	3.5%	1.1%
Net Tuition & Fees	374,009	390,841	411,231	426,486	426,004	424,587	438,896	453,443	464,159	483,484	502,311	517,263	14.1%	3.3%
Grants	148,554	153,007	163,645	151,629	170,184	159,625	172,625	177,740	183,651	189,756	196,063	202,578	14.0%	3.3%
Sales & Service, Educational	9,137	9,321	10,795	10,653	9,153	10,696	11,572	13,535	13,815	14,102	14,395	14,693	8.6%	5.1%
Auxiliary Enterprises	256,110	268,041	279,545	243,865	104,578	267,898	288,399	300,482	312,393	322,601	333,115	341,944	13.8%	3.5%
Other Operating	16,575	16,768	16,439	19,644	15,998	19,560	19,255	24,139	24,701	25,379	26,073	26,783	11.0%	7.2%
State Appropriations	345,411	360,161	371,781	386,057	404,852	401,707	419,772	431,312	443,589	456,515	469,467	482,770	11.9%	2.8%
Other NonOperating	66,258	78,504	87,616	90,577	111,557	132,003	139,014	80,871	88,269	93,769	95,946	98,223	21.5%	-4.4%
Total Revenues	1,216,054	1,276,643	1,341,052	1,328,911	1,242,326	1,416,076	1,489,533	1,481,522	1,530,577	1,585,606	1,637,368	1,684,254	13.7%	2.5%
% Growth	3.5%	5.0%	5.0%	-0.9%	-6.5%	14.0%	19.9%	-0.5%	3.3%	3.6%	3.3%	2.9%		
Expenses														
Salaries & Fringe	712,315	744,102	780,545	802,927	831,627	824,082	843,823	871,871	901,121	920,789	953,106	981,209	12.5%	3.1%
Non-Personnel	306,743	326,076	341,923	337,418	241,417	351,396	389,256	399,352	408,374	416,285	430,344	444,386	11.3%	2.7%
Scholarships & Fellowships	17,378	18,216	16,581	27,613	24,416	46,256	46,995	21,630	22,279	22,947	23,636	24,345	12.6%	-8.4%
Depreciation	100,409	109,965	117,086	121,494	128,454	135,214	135,620	138,383	141,696	143,882	146,867	148,937	7.6%	1.9%
Interest	36,250	43,131	40,706	39,653	39,409	43,713	43,128	44,014	43,487	44,931	45,904	45,970	4.4%	1.3%
Total Expenses	1,173,095	1,241,490	1,296,841	1,329,105	1,265,323	1,400,661	1,458,822	1,475,251	1,516,957	1,548,835	1,599,858	1,644,848	11.5%	2.4%
% Growth	3.9%	5.8%	4.5%	2.5%	-4.8%	10.7%	15.3%	1.1%	2.8%	2.1%	3.3%	2.8%		
Operating Margin														
Surplus / (Deficit)	36,052	33,114	36,365	2,539	(11,895)	9,765	25,061	621	7,970	31,121	31,861	33,757		
UMass OM Calc	3.0%	2.6%	2.7%	0.2%	-0.9%	0.7%	1.7%	0.0%	0.5%	2.0%	2.0%	2.0%		

Amherst: Enrollment Strategy

- **Overview:** Expect to return to pre-pandemic enrollment levels through targeted marketing in domestic and international areas outside the Northeast. Marketing and recruitment efforts are yielding increased applications for fall 2022 to date.
- **Undergraduate:** 3.3% growth in undergraduate enrollment (763 students) over five years; average annual growth of 1.2%.
 - New: Average annual growth of 2.2%; targeting entering class of 5,350 first-time students in FY25
 - Continuing: Average annual growth of 0.9%; large entering class of Fall 2019 will leave beginning in FY24 (260 student drop)
- **Graduate:** Slight growth forecasted in graduate masters programs. Challenges over the last two years in bringing International Masters students to campus.
- **Online:** Revenue projected to grow 5% annually; concerns about increasing market competition
- **Occupancy:** Residence halls return to designed capacity (13,500) ability to add 200-300 students to meet additional housing demand as needed.

Amherst: Enrollment Trend

<u>AAGR:</u>	<u>Total:</u>	<u>Undergraduate:</u>	<u>Graduate:</u>	<u>Online Only:</u>
FY17-20:	1.9	1.7	2.3	6.1
FY21-22:	0.0	-0.8	0.0	10.2
FY23-27:	1.2	1.2	0.8	2.0

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Undergraduate	22,588	22,643	22,945	23,680	23,430	23,380	23,291	23,557	23,485	23,933	24,517	24,776
% Change	1.9%	0.2%	1.3%	3.2%	-1.1%	-0.2%	-0.6%	1.1%	-0.3%	1.9%	2.4%	1.1%
Graduate	3,496	3,708	3,772	3,736	3,648	3,648	3,734	3,774	3,804	3,829	3,854	3,879
% Change	2.3%	6.1%	1.7%	-0.9%	-2.4%	0.0%	2.4%	1.1%	0.8%	0.7%	0.7%	0.6%
Continuing Ed	428	472	417	313	250	256	256	256	256	256	256	256
% Change	-7.7%	10.2%	-11.8%	-24.8%	-20.1%	2.4%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Online Only	1,827	1,888	1,917	2,079	2,365	2,439	2,521	2,577	2,628	2,681	2,734	2,789
% Change	10.9%	3.4%	1.5%	8.4%	13.8%	3.1%	6.6%	2.2%	2.0%	2.0%	2.0%	2.0%
Total	28,339	28,711	29,051	29,808	29,693	29,723	29,802	30,164	30,173	30,699	31,361	31,700
% Change	2.3%	1.3%	1.2%	2.6%	-0.4%	0.1%	0.4%	1.2%	0.0%	1.7%	2.2%	1.1%

Source: Actuals from student profile.

Amherst: Enrollment by Residency

Total Enrollment

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
In State	19,665	19,827	20,016	20,743	20,843	20,767	20,483	20,827	20,717	21,046	21,577	21,782
% Change	2.7%	0.8%	1.0%	3.6%	0.5%	-0.4%	-1.7%	1.7%	-0.5%	1.6%	2.5%	1.0%
Out of State	8,674	8,884	9,034	9,065	8,850	8,956	9,319	9,337	9,457	9,652	9,784	9,918
% Change	1.4%	2.4%	1.7%	0.3%	-2.4%	1.2%	5.3%	0.2%	1.3%	2.1%	1.4%	1.4%
Total	28,339	28,711	29,051	29,808	29,693	29,723	29,802	30,164	30,173	30,699	31,361	31,700
% Change	2.3%	1.3%	1.2%	2.6%	-0.4%	0.1%	0.4%	1.2%	0.0%	1.7%	2.2%	1.1%

Undergraduate Only

Undergraduate (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
In State	17,412	17,438	17,608	18,284	18,146	18,023	17,833	18,149	18,012	18,315	18,818	18,995
% Change	2.4%	0.1%	1.0%	3.8%	-0.8%	-0.7%	-1.7%	1.8%	-0.8%	1.7%	2.7%	0.9%
Out of State	5,176	5,205	5,337	5,396	5,284	5,357	5,458	5,409	5,473	5,619	5,700	5,782
% Change	0.2%	0.6%	2.5%	1.1%	-2.1%	1.4%	3.3%	-0.9%	1.2%	2.7%	1.4%	1.4%
Total	22,588	22,643	22,945	23,680	23,430	23,380	23,291	23,557	23,485	23,933	24,517	24,776
% Change	1.9%	0.2%	1.3%	3.2%	-1.1%	-0.2%	-0.6%	1.1%	-0.3%	1.9%	2.4%	1.1%

Source: Actuals from student profile.

Amherst: Enrollment by New vs. Continuing

Undergraduate (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
New	6,184	6,182	6,535	7,284	6,419	6,435	6,361	6,681	6,881	7,031	7,081	7,081
% Change	1.4%	0.0%	5.7%	11.5%	-11.9%	0.2%	-0.9%	5.0%	3.0%	2.2%	0.7%	0.0%
Continuing	16,404	16,461	16,411	16,396	17,010	16,945	16,930	16,876	16,604	16,902	17,436	17,695
% Change	2.1%	0.3%	-0.3%	-0.1%	3.7%	-0.4%	-0.5%	-0.3%	-1.6%	1.8%	3.2%	1.5%
Undergraduate Total	22,588	22,643	22,945	23,680	23,429	23,380	23,291	23,557	23,485	23,933	24,517	24,776
% Change	1.9%	0.2%	1.3%	3.2%	-1.1%	-0.2%	-0.6%	1.1%	-0.3%	1.9%	2.4%	1.1%

Source: Actuals from student profile.

Amherst: Staffing

Employee FTEs	Actual				Budget	Actual	Forecast					
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	
Restricted												
Faculty	49	43	42	41	41	45	41	41	41	41	41	41
Staff	374	361	382	432	432	432	432	432	432	432	432	432
Total Restricted	423	404	425	474	473	477	473	473	473	473	473	473
# Change		(19)	21	49	(1)	3	(4)	-	-	-	-	-
% Change		-4%	5%	11%	0%	1%	-1%	0%	0%	0%	0%	0%
Unrestricted General University Ops												
Faculty	1,508	1,569	1,620	1,605	1,588	1,604	1,618	1,623	1,628	1,633	1,644	1,644
Staff	2,676	2,712	2,762	2,678	2,787	2,695	2,836	2,829	2,822	2,827	2,838	2,838
Executive/Admin/Managerial	125	135	143	159	-	163	-	-	-	-	-	-
Professional Nonfaculty	1,179	1,215	1,257	1,329	-	1,314	-	-	-	-	-	-
Secretarial/Clerical	588	583	581	519	-	486	-	-	-	-	-	-
Technical/Paraprofessional	294	300	293	284	-	287	-	-	-	-	-	-
Skilled Crafts	173	177	179	146	-	161	-	-	-	-	-	-
Service Maintenance Workers	317	302	308	240	-	284	-	-	-	-	-	-
Unspecified												
Total General University Ops	4,183	4,280	4,382	4,283	4,375	4,299	4,454	4,452	4,450	4,460	4,482	4,482
# Change		97	102	(99)	92	16	155	(2)	(2)	10	22	22
% Change		2%	2%	-2%	2%	0%	4%	0%	0%	0%	0%	0%
Unrestricted Aux./Independent Business												
Faculty	-	-	-	-	-	-	-	-	-	-	-	-
Staff	1,023	1,228	1,516	816	1,314	1,319	1,325	1,335	1,345	1,355	1,365	1,365
Total Aux./Independent Business	1,023	1,228	1,516	816	1,314	1,319	1,325	1,335	1,345	1,355	1,365	1,365
# Change		205	288	(700)	498	503	6	10	10	10	10	10
% Change		20%	23%	-46%	61%	62%	0%	1%	1%	1%	1%	1%
Total Faculty & Staff	5,629	5,912	6,323	5,572	6,162	6,094	6,252	6,260	6,268	6,288	6,320	6,320
# Change		283	411	(750)	590	522	158	8	8	20	32	32
% Change		5%	7%	-12%	11%	9%	3%	0%	0%	0%	0%	1%

Amherst: Staffing

Faculty & staff of 6,094 grows on average 1% over the forecast period.

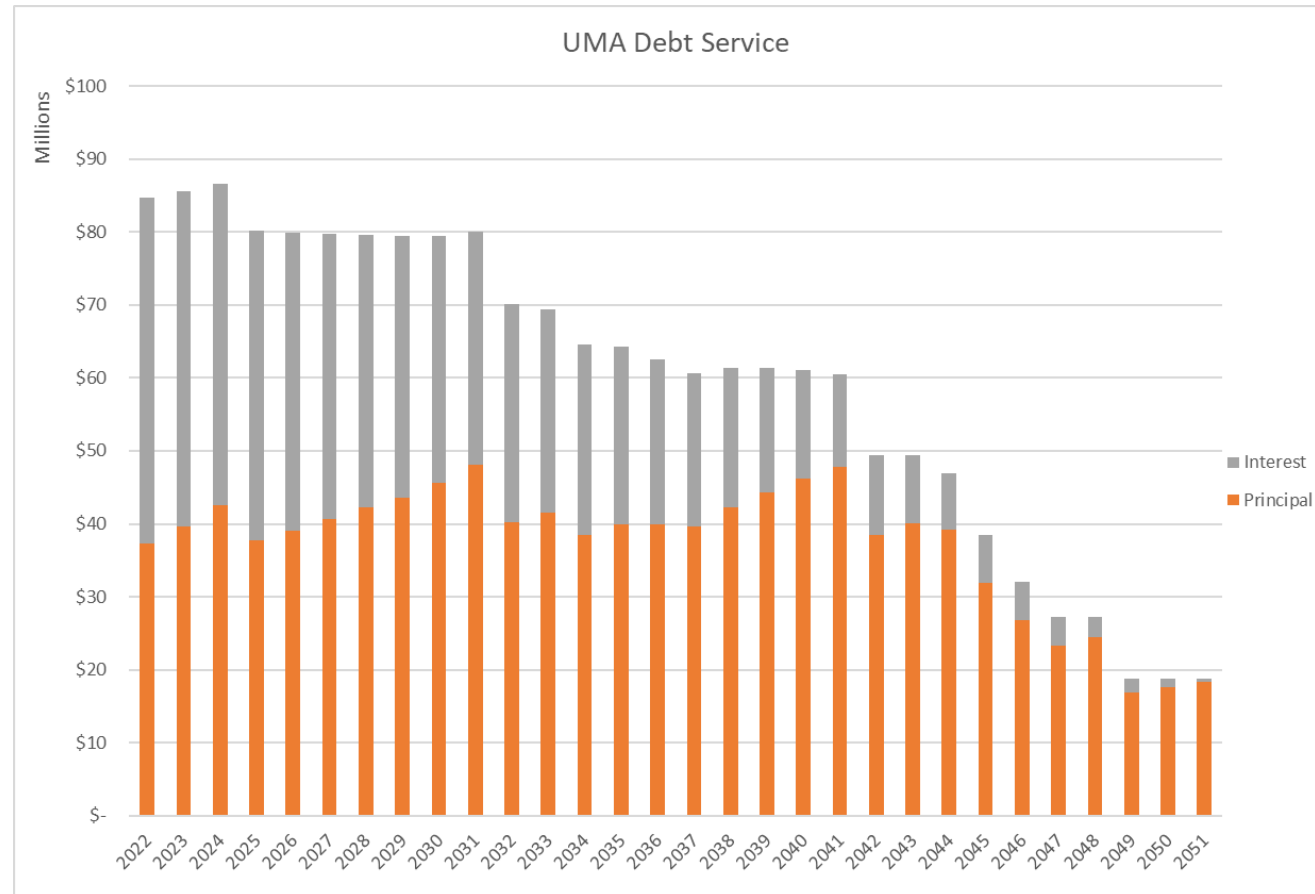
General Operations: 71% of total employees; faculty & staff that support general university operations	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		4,299	37%	63%
	FY17-20:	2.3	3.7	1.6
	FY21-22:	-0.9	-0.5	-1.2
	FY23-27:	0.8	0.5	1.1
Auxiliary / Independent Business Lines: 22% of total employees, including housing & dining	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		1,319	0%	100%
	FY17-20:	21.8	0.0	21.8
	FY21-22:	7.8	0.0	7.8
	FY23-27:	0.7	0.0	0.7
Restricted: 8% of total employees; faculty & staff funded by grant & endowed funds	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		477	9%	91%
	FY17-20:	0.3	-6.6	1.2
	FY21-22:	6.1	3.5	6.4
	FY23-27:	-0.2	-1.8	0.0

Amherst: Staffing Ratios

	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
<i>Student - Faculty</i>												
Student (FTE)	28,339	28,711	29,051	29,808	29,693	29,723	29,802	30,164	30,173	30,699	31,361	31,700
Faculty (FTE)	1,550	1,556	1,611	1,663	1,647	1,629	1,649	1,659	1,664	1,669	1,674	1,685
Student-Faculty Ratio	18.3	18.4	18.0	17.9	18.0	18.2	18.1	18.2	18.1	18.4	18.7	18.8
<i>Staff - Faculty (All)</i>												
Staff (FTE)	3,944	4,072	4,301	4,660	3,926	4,533	4,445	4,593	4,596	4,599	4,614	4,635
Faculty (FTE)	1,550	1,556	1,611	1,663	1,647	1,629	1,649	1,659	1,664	1,669	1,674	1,685
Staff-Faculty Ratio	2.5	2.6	2.7	2.8	2.4	2.8	2.7	2.8	2.8	2.8	2.8	2.8
<i>Staff - Faculty (E&G)</i>												
Staff (FTE)	2,611	2,676	2,712	2,762	2,678	2,787	2,695	2,836	2,829	2,822	2,827	2,838
Faculty (FTE)	1,486	1,508	1,569	1,620	1,605	1,588	1,604	1,618	1,623	1,628	1,633	1,644
Staff-Faculty Ratio (E&G)	1.8	1.8	1.7	1.7	1.7	1.8	1.7	1.8	1.7	1.7	1.7	1.7

Amherst: Key Ratios

Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Operating Margin (%)	3.0%	2.6%	2.7%	0.2%	-0.9%	0.7%	1.7%	0.0%	0.5%	2.0%	2.0%	2.0%
Operating Margin (\$)	36,052	33,114	36,365	2,539	(11,895)	9,765	25,061	621	7,970	31,121	31,861	33,757
Operating Cash Flow Margin (%)	14.8%	14.8%	14.6%	12.9%	12.2%	14.1%	14.9%	13.2%	13.2%	14.2%	14.0%	13.9%
Operating Cash Flow Margin (\$)	176,745	186,268	192,282	168,787	148,424	192,638	215,237	192,565	198,300	220,894	225,688	230,055
Debt Service Burden (%)	6.6%	6.8%	6.5%	6.4%	3.7%	5.9%	5.5%	5.7%	5.7%	5.4%	5.6%	5.6%
Debt Service Coverage (x)	2.3	2.2	2.3	2.0	3.2	2.3	2.7	2.3	2.3	2.6	2.5	2.5
Financial Leverage (x)	0.50	0.54	0.54	0.49	0.63	0.48	0.53	0.55	0.56	0.53	0.54	0.55
Total Debt (\$ in thousands)	1,048,407	1,044,216	1,089,240	1,203,126	1,222,295	1,203,126	1,232,980	1,192,797	1,179,789	1,275,534	1,281,962	1,285,595
Total Cash & Investments to Op Expenses (x)	0.60	0.61	0.60	0.60	0.79	0.58	0.61	0.59	0.58	0.58	0.57	0.56
Enrollment	28,339	28,711	29,051	29,808	29,693	29,723	29,802	30,164	30,173	30,699	31,361	31,700
Enrollment (% Change)	2.3%	1.3%	1.2%	2.6%	-0.4%	0.1%	0.4%	1.2%	0.0%	1.7%	2.2%	1.1%



Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Debt Service Burden (%)	6.6%	6.8%	6.5%	6.4%	3.7%	5.9%	5.5%	5.7%	5.7%	5.4%	5.6%	5.6%
Debt Service Coverage (x)	2.3	2.2	2.3	2.0	3.2	2.3	2.7	2.3	2.3	2.6	2.5	2.5
Financial Leverage (x)	0.50	0.54	0.54	0.49	0.63	0.48	0.53	0.55	0.56	0.53	0.54	0.55
Total Debt (\$ in thousands)	1,048,407	1,044,216	1,089,240	1,203,126	1,222,295	1,203,126	1,232,980	1,192,797	1,179,789	1,275,534	1,281,962	1,285,595

Boston



About UMass Boston

- The University of Massachusetts Boston is a public research university with a dynamic culture of teaching and learning, and a special commitment to urban and global engagement. Our vibrant, multi-cultural educational environment encourages our broadly diverse campus community to thrive and succeed. Our distinguished scholarship, dedicated teaching, and engaged public service are mutually reinforcing, creating new knowledge while serving the public good of our city, our Commonwealth, our nation, and our world.



Boston: Revenue & Expenses Trend

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY23-27	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Cumulative	Avg. Annual
Gross Tuition & Fees	240,235	243,760	245,734	252,603	256,240	254,142	244,643	261,122	270,080	278,043	286,258	293,623	12.4%	3.7%
Tuition Discounts	(53,820)	(57,790)	(64,836)	(69,973)	(74,079)	(79,050)	(77,201)	(79,222)	(81,168)	(83,174)	(85,258)	(87,406)	10.3%	2.5%
Discount Rate	22.4%	23.7%	26.4%	27.7%	28.9%	31.1%	31.6%	30.3%	30.1%	29.9%	29.8%	29.8%	-1.9%	-0.5%
Net Tuition & Fees	186,415	185,970	180,898	182,630	182,161	175,092	167,442	181,900	188,912	194,868	201,000	206,218	13.4%	3.2%
Grants	58,201	56,212	53,536	54,732	58,185	57,823	58,706	60,536	61,747	62,982	64,241	65,526	8.2%	2.0%
Sales & Service, Educational	3,979	4,072	4,312	1,744	1,262	2,100	2,100	2,100	2,100	2,100	2,100	2,100	0.0%	0.0%
Auxiliary Enterprises	6,167	5,199	12,315	10,381	3,230	13,419	13,625	13,719	13,815	13,913	14,013	14,115	2.9%	0.7%
Other Operating	1,818	1,758	2,218	3,138	2,586	2,531	3,138	3,500	3,500	3,500	3,500	3,500	0.0%	0.0%
State Appropriations	130,157	135,605	140,659	146,284	152,833	152,222	157,030	161,128	165,564	170,103	174,748	179,500	11.4%	2.7%
Other NonOperating	36,597	37,773	42,529	44,706	67,866	77,434	78,376	41,445	42,775	43,789	44,240	44,177	6.6%	1.6%
Total Revenues	423,334	426,589	436,467	443,615	468,123	480,622	480,418	464,327	478,413	491,255	503,842	515,136	10.9%	1.4%
% Growth	4.2%	0.8%	2.3%	1.6%	5.5%	2.7%	2.6%	-3.3%	3.0%	2.7%	2.6%	2.2%		
Expenses														
Salaries & Fringe	275,330	269,465	269,723	269,734	270,486	272,268	276,381	287,496	294,761	299,499	307,049	314,783	9.5%	4.0%
Non-Personnel	98,250	98,972	98,428	96,680	90,822	111,181	113,615	106,739	107,951	111,187	112,451	113,742	6.6%	2.9%
Scholarships and Fellowships	16,161	17,180	17,983	20,771	30,189	37,405	37,993	18,994	18,994	18,994	18,994	18,994	0.0%	0.0%
Depreciation	22,246	24,433	28,010	32,460	32,765	34,178	33,617	35,604	37,030	37,030	36,873	36,497	2.5%	1.5%
Interest	12,476	14,152	16,823	19,312	18,730	19,106	18,813	15,495	15,096	14,721	14,207	13,697	-11.6%	-5.1%
Total Expenses	424,463	424,202	430,967	438,957	442,992	474,138	480,418	464,327	473,831	481,430	489,574	497,713	7.2%	0.7%
% Growth	3.0%	-0.1%	1.6%	1.9%	0.9%	7.0%	8.4%	-3.3%	2.0%	1.6%	1.7%	1.7%		
Operating Margin														
Surplus / (Deficit)	(3,001)	2,387	3,896	5,057	27,035	6,484	(0)	(0)	4,581	9,825	14,268	17,422		
UMass OM Calc	-0.7%	0.6%	0.9%	1.1%	5.8%	1.3%	0.0%	0.0%	1.0%	2.0%	2.8%	3.4%		

*Q1 Projection development in progress.

Boston: Enrollment Strategy

- **Overview:** expected to recover to pre-COVID levels over the forecast term in key areas (foreign and graduate-masters) while maintaining some gains in regional and out of state; both new and continuing student growth and a focus on retention efforts. Enrollment will benefit broadly from the implementation of Slate and the launch of a university brand and marketing campaign.
- **Undergraduate:** Annual average growth of 1.1% with in-state enrollment growing by an annual average of 0.2% and out of state (including foreign) by 4.7%.
 - New: Annual average growth of 1.5% annually; Continuing: Annual average growth of 0.7% annually
 - International applications have rebounded for spring 2022 and fall 2022 and our international partners are reporting increased interest
 - Conservative approach with in-state enrollment increase in response to demographic shifts. Out-of-state growth is consistent with the enrollment growth experienced in prior years and reflects increased out-of-state marketing and recruitment efforts.
- **Graduate:** Annual average growth of 1.6%, with in-state growing by an annual average of 0.5% and out of state (including foreign) by 2.9% annually.
 - International partners are reporting increased interest. The launch of Graduate CAS (Centralized Application Service), integrated with Slate, provides greater national exposure and processing efficiencies.
- **Online:** Annual average growth of 1.2% over the forecast period.
- **Occupancy:** Expected to be near 100% at the 3rd Party Residence Hall.

Boston: Enrollment Trend

<u>AAGR:</u>	<u>Total:</u>	<u>Undergraduate:</u>	<u>Graduate:</u>	<u>Online Only:</u>
FY17-20:	0.1	1.6	-1.4	0.1
FY21-22:	-1.1	-2.3	-6.1	-1.1
FY23-27:	1.1	1.0	1.6	1.1

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Undergraduate	9,529	9,835	10,256	10,280	10,342	10,447	9,798	9,997	10,091	10,160	10,230	10,273
% Change	-1.3%	3.2%	4.3%	0.2%	0.6%	1.0%	-5.3%	2.0%	0.9%	0.7%	0.7%	0.4%
Graduate	1,816	1,802	1,714	1,771	1,783	1,783	1,554	1,662	1,675	1,678	1,678	1,678
% Change	-3.2%	-0.8%	-4.9%	3.3%	0.7%	0.0%	-12.8%	6.9%	0.8%	0.2%	0.0%	0.0%
Continuing Ed	939	697	715	419	599	392	283	296	301	305	308	310
Online Only	818	703	528	769	847	865	1,308	1,354	1,367	1,375	1,382	1,386
% Change	5.7%	-20.3%	-11.2%	-4.4%	21.6%	-13.1%	10.0%	3.7%	1.2%	0.7%	0.6%	0.3%
Total	13,101	13,036	13,213	13,241	13,571	13,486	12,943	13,308	13,434	13,518	13,598	13,647
% Change	-0.7%	-0.5%	1.4%	0.2%	2.5%	-0.6%	-4.6%	2.8%	0.9%	0.6%	0.6%	0.4%

Source: Actuals from student profile.

Boston: Enrollment by Residency

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
In State	10,155	10,249	10,576	10,639	11,045	11,082	10,595	10,646	10,664	10,683	10,702	10,720
% Change	-1.0%	0.9%	3.2%	0.6%	3.8%	0.3%	-4.1%	0.5%	0.2%	0.2%	0.2%	0.2%
Out of State	1,060	1,020	1,011	1,050	1,067	897	1,246	1,331	1,366	1,398	1,431	1,456
% Change	-64.0%	-3.8%	-0.9%	3.9%	1.6%	-15.9%	16.8%	6.8%	2.6%	2.3%	2.3%	1.8%
International	1,886	1,768	1,626	1,552	1,459	1,507	1,102	1,331	1,403	1,437	1,466	1,471
% Change		-6.3%	-8.0%	-4.6%	-6.0%	3.3%	-24.5%	20.8%	5.4%	2.4%	2.0%	0.3%
Total	13,101	13,036	13,213	13,241	13,571	13,486	12,943	13,308	13,434	13,518	13,598	13,647
% Change	-0.7%	-0.5%	1.4%	0.2%	2.5%	-0.6%	-4.6%	2.8%	0.9%	0.6%	0.6%	0.4%

Source: Actuals from student profile.

Boston: Enrollment by New vs. Continuing

Undergraduate (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
New	2,612	2,995	3,344	3,244	3,076	3,104	3,001	3,172	3,188	3,201	3,215	3,232
% Change	-3.1%	14.7%	11.6%	-3.0%	-5.2%	0.9%	-2.4%	5.7%	0.5%	0.4%	0.4%	0.5%
Continuing	6,917	6,838	6,912	7,036	7,266	7,343	6,797	6,825	6,902	6,959	7,015	7,040
% Change	-0.6%	-1.1%	1.1%	1.8%	3.3%	1.1%	-6.5%	0.4%	1.1%	0.8%	0.8%	0.4%
Undergraduate Total	9,529	9,834	10,256	10,280	10,342	10,447	9,798	9,997	10,091	10,160	10,230	10,273
% Change	-1.3%	3.2%	4.3%	0.2%	0.6%	1.0%	-5.3%	2.0%	0.9%	0.7%	0.7%	0.4%

Source: Actuals from student profile.

Boston: Staffing

Employee FTEs	Actual				Budget	Actual	Forecast					
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	
Restricted												
Faculty	13	12	10	7	12	6	6	6	6	6	6	6
Staff	153	135	132	126	146	116	136	136	136	136	136	136
Total Restricted	166	147	142	133	158	123	142	142	142	142	142	142
# Change		(19)	(5)	(9)	25	(36)	20	-	-	-	-	-
% Change		-13%	-4%	-7%	16%	-29%	14%	0%	0%	0%	0%	0%
Unrestricted General University Ops												
Faculty	862	873	864	843	828	861	830	830	830	830	830	830
Staff	983	931	941	869	892	898	883	883	861	861	861	861
Executive/Admin/Managerial	93	89	83	85	-	85	-	-	-	-	-	-
Professional Nonfaculty	590	559	574	540	-	572	-	-	-	-	-	-
Secretarial/Clerical	167	152	150	133	-	132	-	-	-	-	-	-
Technical/Paraprofessional	105	105	106	88	-	87	-	-	-	-	-	-
Skilled Crafts	12	11	11	9	-	10	-	-	-	-	-	-
Service Maintenance Workers	16	14	15	13	-	12	-	-	-	-	-	-
Unspecified												
Total General University Ops	1,845	1,804	1,805	1,712	1,720	1,759	1,713	1,713	1,691	1,691	1,691	1,691
# Change		(41)	1	(93)	8	39	(46)	-	(22)	-	-	-
% Change		-2%	0%	-5%	0%	2%	-3%	0%	-1%	0%	0%	0%
Unrestricted Aux./Independent Business												
Faculty	-	-	-	-	-	-	-	-	-	-	-	-
Staff	56	40	27	19	22	29	29	29	29	29	29	29
Total Aux./Independent Business	56	40	27	19	22	29	29	29	29	29	29	29
# Change		(16)	(13)	(8)	3	7	-	-	-	-	-	-
% Change		-41%	-49%	-44%	15%	24%	0%	0%	0%	0%	0%	0%
Total Faculty & Staff	2,067	1,991	1,974	1,863	1,900	1,910	1,884	1,884	1,862	1,862	1,862	1,862
# Change		(76)	(17)	(111)	36	11	(26)	-	(22)	-	-	-
% Change		-4%	-1%	-6%	2%	1%	-1%	0%	-1%	0%	0%	0%

FY22 budget staffing reflects average staffing as of 9/30 which includes filling some vacant positions

Boston: Staffing

Faculty & staff of 1,910 declines on average 1% over the forecast period.

General Operations: 92% of total employees; faculty & staff that support general university operations	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		1,759	49%	51%
	FY17-20:	-1.1	0.1	-2.1
	FY21-22:	-1.2	-0.1	-2.2
	FY23-27:	-0.8	-0.7	-0.8
Auxiliary / Independent Business Lines: 2% of total employees	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		29	0%	100%
	FY17-20:	-30.9	0.0	-30.9
	FY21-22:	12.1	0.0	12.1
	FY23-27:	0.0	0.0	0.0
Restricted: 6% of total employees; faculty & staff funded by grant & endowed funds	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		123	5%	95%
	FY17-20:	-7.4	-11.2	-7.0
	FY21-22:	-7.2	-22.3	-6.1
	FY23-27:	3.2	0.0	3.3

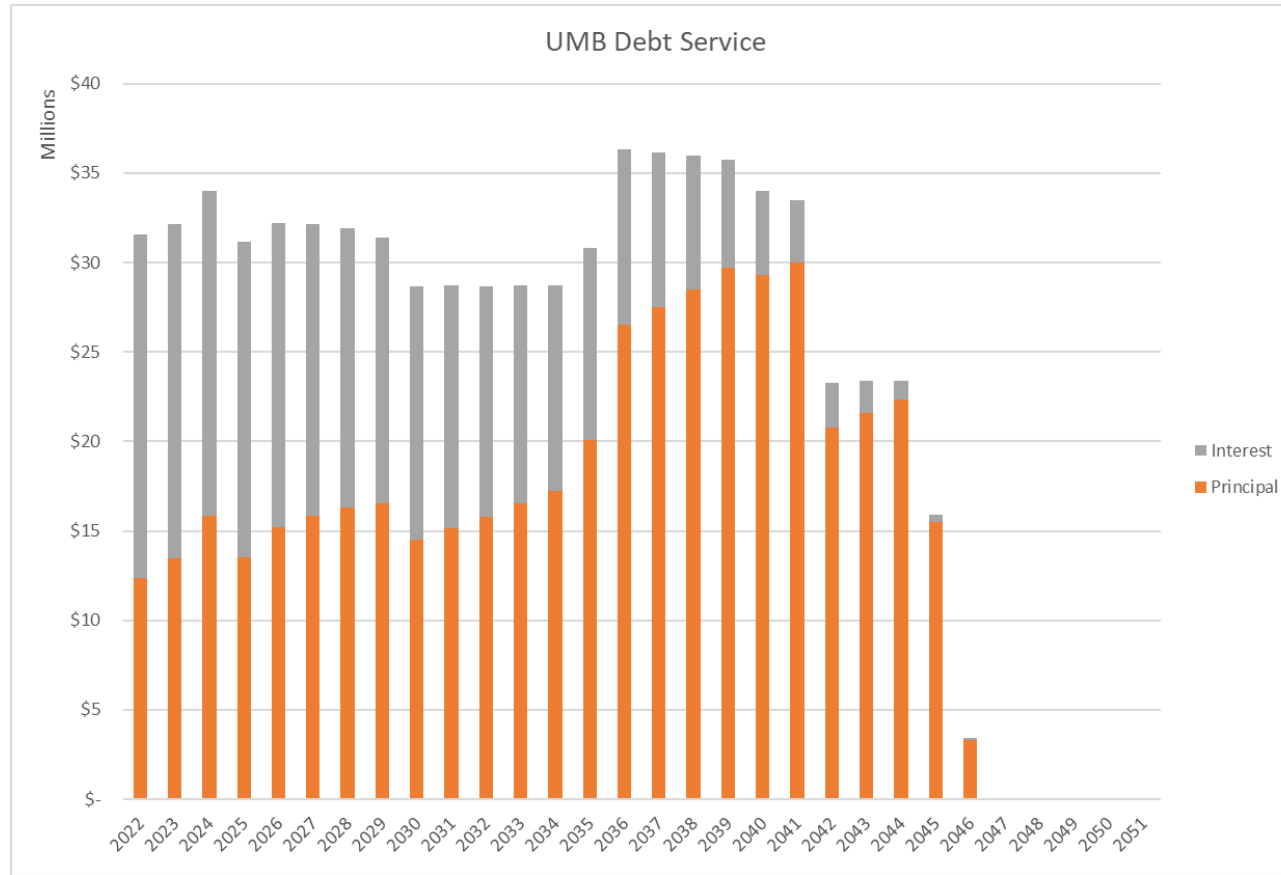
Boston: Staffing Ratios

	Actual				Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Student - Faculty											
Student (FTE)	13,036	13,213	13,241	13,571	13,486	12,943	13,308	13,434	13,518	13,598	13,647
Faculty (FTE)	875	885	874	850	840	867	836	836	836	836	836
Student-Faculty Ratio	14.9	14.9	15.2	16.0	16.1	14.9	15.9	16.1	16.2	16.3	16.3
Staff - Faculty (All)											
Staff (FTE)	1,192	1,106	1,100	1,013	1,060	1,043	1,048	1,048	1,026	1,026	1,026
Faculty (FTE)	875	885	874	850	840	867	836	836	836	836	836
Staff-Faculty Ratio	1.4	1.2	1.3	1.2	1.3	1.2	1.3	1.3	1.2	1.2	1.2
Staff - Faculty (E&G)											
Staff (FTE)	983	931	941	869	892	898	883	883	861	861	861
Faculty (FTE)	862	873	864	843	828	861	830	830	830	830	830
Staff-Faculty Ratio (E&G)	1.1	1.1	1.1	1.0	1.1	1.0	1.1	1.1	1.0	1.0	1.0

Boston: Key Ratios

Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Operating Margin (%)	-0.7%	0.6%	0.9%	1.1%	5.8%	1.3%	0.0%	0.0%	1.0%	2.0%	2.8%	3.4%
Operating Margin (\$)	(3,001)	2,387	3,896	5,057	27,035	6,484	(0)	(0)	4,581	9,825	14,268	17,422
Operating Cash Flow Margin (%)	7.1%	9.0%	11.2%	13.3%	17.3%	20.0%	12.4%	11.7%	12.8%	13.5%	14.2%	14.4%
Operating Cash Flow Margin (\$)	28,684	36,282	46,650	56,042	75,716	96,084	55,438	52,047	58,869	64,360	69,528	72,248
Debt Service Burden (%)	5.9%	6.3%	6.9%	7.5%	4.2%	6.7%	6.5%	6.5%	6.8%	6.1%	6.3%	6.2%
Debt Service Coverage (x)	1.1	1.4	1.6	1.7	4.0	3.0	1.8	1.7	1.8	2.2	2.3	2.4
Financial Leverage (x)	0.12	0.12	0.16	0.19	0.31	0.18	0.26	0.48	0.50	0.54	0.59	0.65
Total Debt (\$ in thousands)	622,941	611,819	616,132	606,847	611,943	606,847	659,138	535,857	520,247	501,922	485,712	467,667
Total Cash & Investments to Op Expenses (x)	0.43	0.42	0.42	0.44	0.59	0.37	0.50	0.69	0.69	0.70	0.71	0.74
Enrollment	13,101	13,036	13,213	13,241	13,571	13,486	12,943	13,308	13,434	13,518	13,598	13,647
Enrollment (% Change)	-0.7%	-0.5%	1.4%	0.2%	2.5%	-0.6%	-4.6%	2.8%	0.9%	0.6%	0.6%	0.4%

*Both Financial leverage and total cash and investments include \$87M for Bayside sale



Key Ratio

	Actual					Budget	Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Debt Service Burden (%)	5.9%	6.3%	6.9%	7.5%	4.2%	6.7%	6.5%	6.5%	6.8%	6.1%	6.3%	6.2%
Debt Service Coverage (x)	1.1	1.4	1.6	1.7	4.0	3.0	1.8	1.7	1.8	2.2	2.3	2.4
Financial Leverage (x)	0.12	0.12	0.16	0.19	0.31	0.18	0.26	0.48	0.50	0.54	0.59	0.65
Total Debt (\$ in thousands)	622,941	611,819	616,132	606,847	611,943	606,847	661,953	535,312	519,747	501,457	485,222	467,152

Dartmouth



About UMass Dartmouth

- UMass Dartmouth distinguishes itself as a vibrant, public research university dedicated to engaged learning and innovative research resulting in personal and lifelong student success. The University serves as an intellectual catalyst for economic, social, and cultural transformation on a global, national, and regional scale.



Dartmouth: Revenue & Expenses

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY23-27	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Cumulative Avg.	Annual
Gross Tuition & Fees	115,421	116,766	121,340	120,535	116,562	116,002	114,000	117,589	121,455	127,741	135,589	142,653	21.3%	4.6%
Tuition Discounts	(38,179)	(38,795)	(42,762)	(39,858)	(34,440)	(43,645)	(38,760)	(39,981)	(41,295)	(43,433)	(46,101)	(48,503)	21.3%	4.6%
Discount Rate	33.1%	33.2%	35.2%	33.1%	29.5%	37.6%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%	-0.0%	0.0%
Net Tuition & Fees	77,242	77,971	78,578	80,677	82,122	72,357	75,240	77,608	80,160	84,308	89,488	94,150	21.3%	4.6%
Grants	19,534	18,925	18,918	18,677	19,674	20,254	20,254	20,659	21,072	22,493	22,943	23,402	13.3%	2.9%
Sales & Service, Educational	45	96	164	154	40	75	75	75	75	75	75	75	0.0%	0.0%
Auxiliary Enterprises	48,349	47,666	49,451	35,932	10,282	35,006	31,583	37,930	36,593	37,007	38,523	39,548	4.3%	4.9%
Other Operating	6,237	4,438	2,955	2,312	2,041	2,945	2,945	2,974	3,005	3,034	3,065	3,095	4.1%	1.0%
State Appropriations	80,436	83,740	86,385	92,731	95,942	95,658	99,210	101,727	104,316	106,966	109,677	112,450	10.5%	2.5%
Other NonOperating	16,542	17,792	20,141	20,963	31,139	38,366	34,336	19,518	16,201	17,751	18,367	18,881	-3.3%	-8.9%
Total Revenues	248,385	250,628	256,592	251,446	241,240	264,661	263,643	260,491	261,421	271,635	282,138	291,601	11.9%	2.1%
% Growth	2.9%	0.9%	2.4%	-2.0%	-4.1%	9.7%	9.3%	-1.2%	0.4%	3.9%	3.9%	3.4%		
Expenses														
Salaries & Fringe	142,247	150,061	151,746	152,040	142,296	153,049	157,009	160,595	164,772	168,904	174,357	180,470	12.4%	2.8%
Non-Personnel	64,262	65,795	66,939	62,457	55,867	65,080	62,305	61,678	60,566	61,678	67,299	71,049	15.2%	2.7%
Scholarships & Fellowships	4,821	5,023	5,302	5,641	11,395	15,255	13,225	7,285	5,255	5,255	5,255	5,255	-27.9%	-14.6%
Depreciation	18,647	20,481	21,665	22,187	21,963	22,642	22,813	23,085	23,300	23,267	23,099	22,833	-1.1%	0.0%
Interest	8,786	8,910	9,466	9,125	8,665	8,635	8,291	7,828	7,247	7,019	6,432	6,105	-22.0%	-5.9%
Total Expenses	238,763	250,270	255,118	251,450	240,186	264,661	263,643	260,471	261,140	266,123	276,442	285,712	9.7%	1.6%
% Growth	1.1%	4.8%	1.9%	-1.4%	-4.5%	10.2%	9.8%	-1.2%	0.3%	1.9%	3.9%	3.4%		
Operating Margin														
Surplus / (Deficit)	8,442	2,801	3,658	81	1,663	0	0	20	282	5,512	5,696	5,889		
UMass OM Calc	3.4%	1.1%	1.4%	0.0%	0.7%	0.0%	0.0%	0.0%	0.1%	2.0%	2.0%	2.0%		

Dartmouth: Enrollment Strategy

- **Overview:** Seeking to halt and then reverse a decade-long decline in enrollment by bolstering new student recruitment and first-to-second year student retention. New recruitment strategies include: reviving relationships with South Coast K-12 schools; exploring early college/dual enrollment programs; employing additional out-of-state and international recruiters; expansion of honors college and athletic teams; investment in brand development and marketing.
- **Undergraduate:** Annual average growth of 1% realized by a stabilization of in-state enrollments and out-of-state (including foreign) growth of by 12%.
 - New: Annual average growth of 4.6% annually
 - Continuing: Annual average growth of -0.9% annually; campus climate study and renewed focus on the first-year experience will drive a gradual increase in first-to-second-year retention
- **Graduate:** Annual average growth of 1.6%, with in-state growing by an annual average of 6% and out-of-state (including foreign) by 2% annually;
 - Law: Enrollment will remain flat because the program is currently at capacity following rapid growth.
- **Online:** Annual average growth of 6% over the forecast period.
- **Occupancy:** Average rate of 66% over forecast period (FY23 =68%, FY24=65%, FY25=64%, FY26=66%, FY27=67%)

Dartmouth: Enrollment Trend

<u>AAGR:</u>	<u>Total:</u>	<u>Undergraduate:</u>	<u>Graduate:</u>	<u>Online Only:</u>
FY17-20:	-2.6	-3.8	-8.0	28.5
FY21-22:	-3.7	-6.1	2.9	11.4
FY23-27:	1.8	1.0	3.9	5.9

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Undergraduate	5,861	5,582	5,600	5,261	4,993	4,636	4,635	4,512	4,479	4,551	4,735	4,869
% Change	-4.7%	-4.8%	0.3%	-6.1%	-5.1%	-7.2%	-7.2%	-2.7%	-0.7%	1.6%	4.0%	2.8%
Graduate	763	698	594	536	579	535	566	595	625	655	685	685
% Change	1.1%	-8.5%	-14.9%	-9.8%	8.1%	-7.7%	-2.3%	5.1%	5.0%	4.8%	4.6%	0.0%
Continuing Ed	436	508	391	279	120	120	127	120	120	120	120	120
Online Only	340	315	546	649	689	735	804	856	916	981	1,030	1,071
% Change	12.1%	6.0%	13.9%	-1.0%	-12.8%	5.7%	15.2%	4.8%	6.1%	6.2%	4.5%	3.6%
Law School	157	184	199	246	328	327	326	325	325	325	325	325
% Change	-7.6%	16.7%	8.4%	23.6%	33.2%	-0.2%	-0.5%	-0.3%	0.0%	0.0%	0.0%	0.0%
Total	7,558	7,286	7,330	6,971	6,709	6,353	6,459	6,408	6,465	6,631	6,894	7,070
% Change	-2.7%	-3.6%	0.6%	-4.9%	-3.8%	-5.3%	-3.7%	-0.8%	0.9%	2.6%	4.0%	2.5%

Source: Actuals from student profile.

Dartmouth: Enrollment by Residency

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
In State	6,410	6,211	6,191	5,820	5,599	5,305	5,314	5,257	5,231	5,274	5,396	5,465
% Change	-4.4%	-3.1%	-0.3%	-6.0%	-3.8%	-5.2%	-5.1%	-1.1%	-0.5%	0.8%	2.3%	1.3%
Out of State	588	584	721	766	829	793	876.74	873	946	1,059	1,190	1,286
% Change	-44.6%	-0.6%	23.4%	6.2%	8.2%	-4.2%	5.8%	-0.4%	8.3%	11.9%	12.4%	8.1%
International	560	491	418	385	282	254	268	278	288	298	308	318
% Change	0.0%	-12.3%	-14.9%	-7.9%	-26.8%	-9.9%	-5.0%	3.7%	3.6%	3.5%	3.4%	3.2%
Total	7,558	7,286	7,330	6,971	6,709	6,353	6,459	6,408	6,465	6,631	6,894	7,070
% Change	-2.7%	-3.6%	0.6%	-4.9%	-3.8%	-5.3%	-3.7%	-0.8%	0.9%	2.6%	4.0%	2.5%

Source: Actuals from student profile.

Dartmouth: Enrollment by New vs. Continuing

Undergraduate (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
New	1,663	1,647	1,833	1,721	1,533	1,400	1,492	1,520	1,570	1,645	1,755	1,865
% Change	-6.2%	-1.0%	11.3%	-6.1%	-10.9%	-8.6%	-2.6%	1.9%	3.3%	4.8%	6.7%	6.3%
Continuing	4,198	3,934	3,767	3,540	3,461	3,236	3,143	2,992	2,909	2,906	2,980	3,004
% Change	-4.0%	-6.3%	-4.3%	-6.0%	-2.2%	-6.5%	-9.2%	-4.8%	-2.8%	-0.1%	2.5%	0.8%
Undergraduate Total	5,861	5,582	5,600	5,261	4,993	4,636	4,635	4,512	4,479	4,551	4,735	4,869
% Change	-4.7%	-4.8%	0.3%	-6.1%	-5.1%	-7.2%	-7.2%	-2.7%	-0.7%	1.6%	4.0%	2.8%

Source: Actuals from student profile.

Dartmouth: Staffing

Employee FTEs	Actual				Budget	Actual	Forecast					
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	
Restricted												
Faculty	6	5	5	6	3	5	3	3	3	3	3	
Staff	30	31	31	32	34	35	35	35	35	35	35	
Total Restricted	36	36	36	38	37	40	38	38	38	38	38	
# Change		-	-	2	(1)	3	(2)	-	-	-	-	
% Change		0%	0%	5%	-3%	8%	-6%	0%	0%	0%	0%	
Unrestricted General University Ops												
Faculty	464	466	457	437	405	434	429	429	429	433	441	
Staff	597	595	577	530	585	513	545	545	545	549	558	
Executive/Admin/Managerial	51	51	49	46	-	50	-	-	-	-	-	
Professional Nonfaculty	274	282	278	254	-	240	-	-	-	-	-	
Secretarial/Clerical	9	157	150	133	-	130	-	-	-	-	-	
Technical/Paraprofessional	2	41	44	43	-	38	-	-	-	-	-	
Skilled Crafts	12	18	15	15	-	15	-	-	-	-	-	
Service Maintenance Workers	52	46	41	39	-	39	-	-	-	-	-	
Unspecified												
Total General University Ops	1,061	1,061	1,034	967	990	946	974	974	974	982	999	
# Change			(27)	(67)	23	(44)	28	-	-	8	17	
% Change		0%	-3%	-7%	2%	-5%	3%	0%	0%	1%	2%	
Unrestricted Aux./Independent Business												
Faculty	-	-	-	-	-	-	-	-	-	-	-	
Staff	106	107	91	77	76	74	76	76	76	78	85	
Total Aux./Independent Business	106	107	91	77	76	74	76	76	76	78	85	
# Change		1	(16)	(14)	(1)	(2)	2	-	-	2	7	
% Change		1%	-17%	-18%	-2%	-3%	3%	0%	0%	3%	8%	
Total Faculty & Staff	1,203	1,204	1,161	1,082	1,103	1,060	1,088	1,088	1,088	1,098	1,122	
# Change		1	(43)	(79)	21	(43)	28	-	-	10	24	
% Change		0%	-4%	-7%	2%	-4%	3%	0%	0%	1%	2%	

Dartmouth: Staffing

Faculty & staff of 1,060 grows on average 1% over the forecast period.

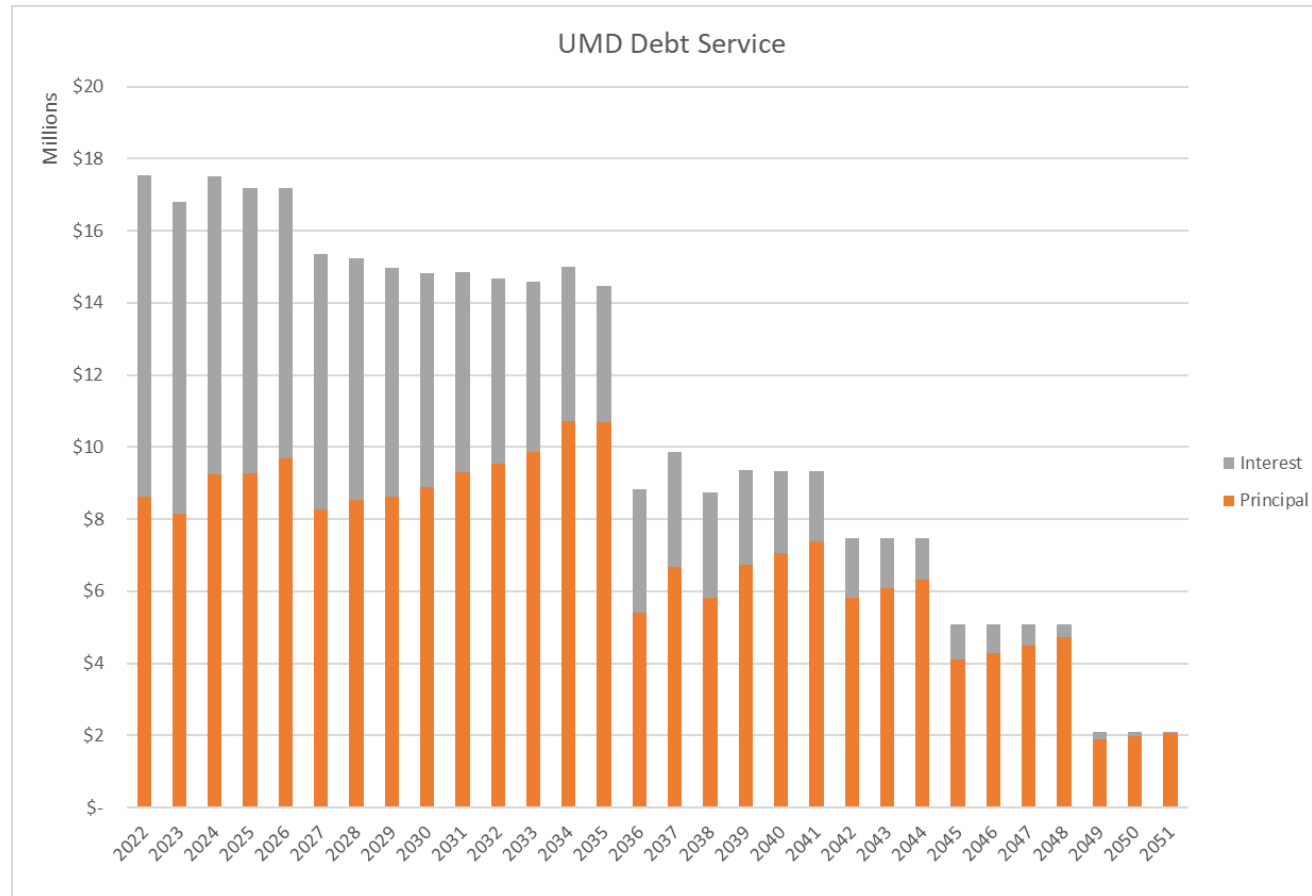
General Operations: 89% of total employees; faculty & staff that support general university operations	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		946	46%	54%
	FY17-20:	-1.3	-0.7	-1.7
	FY21-22:	-4.3	-2.6	-5.7
	FY23-27:	1.1	0.3	1.7
Auxiliary / Independent Business Lines: 7% of total employees, including housing & dining	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		74	0%	100%
	FY17-20:	-6.9	0.0	-6.9
	FY21-22:	-9.8	0.0	-9.8
	FY23-27:	2.9	0.0	2.9
Restricted: 4% of total employees; faculty & staff funded by grant & endowed funds	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		40	13%	87%
	FY17-20:	-8.3	-8.3	1.7
	FY21-22:	5.6	2.3	6.4
	FY23-27:	-1.1	-8.2	0.0

Dartmouth: Staffing Ratios

	Actual				Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Student - Faculty											
Student (FTE)	7,286	7,330	6,971	6,709	6,353	6,459	6,408	6,465	6,631	6,894	7,070
Faculty (FTE)	470	471	462	443	408	439	432	432	432	436	444
Student-Faculty Ratio	15.5	15.6	15.1	15.2	15.6	14.7	14.8	15.0	15.4	15.8	15.9
Staff - Faculty (All)											
Staff (FTE)	733	733	699	639	695	622	656	656	656	662	678
Faculty (FTE)	470	471	462	443	408	439	432	432	432	436	444
Staff-Faculty Ratio	1.6	1.6	1.5	1.4	1.7	1.4	1.5	1.5	1.5	1.5	1.5
Staff - Faculty (E&G)											
Staff (FTE)	597	595	577	530	585	513	545	545	545	549	558
Faculty (FTE)	464	466	457	437	405	434	429	429	429	433	441
Staff-Faculty Ratio (E&G)	1.3	1.3	1.3	1.2	1.4	1.2	1.3	1.3	1.3	1.3	1.3

Dartmouth: Key Ratios

Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Operating Margin (%)	3.4%	1.1%	1.4%	0.0%	0.7%	0.0%	0.0%	0.0%	0.1%	2.0%	2.0%	2.0%
Operating Margin (\$)	8,442	2,801	3,658	81	1,663	0	0	20	282	5,512	5,696	5,889
Operating Cash Flow Margin (%)	13.9%	10.6%	12.8%	12.2%	13.4%	11.5%	11.8%	12.4%	12.3%	13.6%	12.9%	12.3%
Operating Cash Flow Margin (\$)	33,475	25,525	32,192	29,670	30,643	28,470	29,417	31,492	31,536	36,231	35,832	35,405
Debt Service Burden (%)	7.8%	7.6%	7.8%	7.7%	4.1%	6.5%	6.5%	6.1%	6.3%	6.1%	5.8%	5.0%
Debt Service Coverage (x)	1.8	1.3	1.6	1.5	3.1	1.7	1.7	2.0	1.9	2.2	2.2	2.5
Financial Leverage (x)	0.21	0.28	0.19	0.20	0.31	0.20	0.20	0.24	0.25	0.26	0.27	0.28
Total Debt (\$ in thousands)	215,530	205,513	351,883	338,643	346,740	338,643	338,163	322,484	312,406	301,972	290,855	280,854
Total Cash & Investments to Op Expenses (x)	0.34	0.38	0.42	0.42	0.64	0.42	0.46	0.53	0.52	0.51	0.49	0.48
Enrollment	7,558	7,286	7,330	6,971	6,709	6,353	6,459	6,408	6,465	6,631	6,894	7,070
Enrollment (% Change)	-2.7%	-3.6%	0.6%	-4.9%	-3.8%	-5.3%	-3.7%	-0.8%	0.9%	2.6%	4.0%	2.5%



Key Ratio

	Actual					Budget	Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Debt Service Burden (%)	7.8%	7.6%	7.8%	7.7%	4.1%	6.5%	6.5%	6.1%	6.3%	6.1%	5.8%	5.0%
Debt Service Coverage (x)	1.8	1.3	1.6	1.5	3.1	1.7	1.7	2.0	1.9	2.2	2.2	2.5
Financial Leverage (x)	0.21	0.28	0.19	0.20	0.31	0.20	0.20	0.24	0.25	0.26	0.27	0.28
Total Debt (\$ in thousands)	215,530	205,513	351,883	338,643	346,740	338,643	338,643	322,484	312,406	301,972	290,855	280,854

Lowell



About UMass Lowell

- The University of Massachusetts Lowell is a nationally ranked public research university committed to excellence in teaching, research and community engagement. We strive to prepare students to succeed in college and to become lifelong learners and informed citizens in a global environment. UMass Lowell offers affordable, experience-based undergraduate and graduate academic programs taught by internationally recognized faculty who conduct research to expand the horizons of knowledge and sustainable practices. The programs span and interconnect the disciplines of business, education, engineering, fine arts, health, humanities, sciences and social sciences. The university continues to build on its founding tradition of innovation, entrepreneurship and partnerships with industry and the community to address challenges facing the region and the world.



Lowell: Revenue & Expenses Trend

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY23-27	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Cumulative	Avg. Annual
Gross Tuition & Fees	243,228	256,002	259,130	263,115	267,559	268,595	257,497	266,908	277,702	287,729	297,110	306,871	15.0%	3.6%
Tuition Discounts	(54,517)	(61,218)	(65,369)	(67,631)	(61,850)	(67,000)	(66,500)	(67,000)	(68,724)	(70,408)	(71,954)	(73,569)	9.8%	2.0%
Discount Rate	22.4%	23.9%	25.2%	25.7%	23.1%	24.9%	25.8%	25.1%	24.7%	24.5%	24.2%	24.0%	-4.5%	-1.5%
Net Tuition & Fees	188,711	194,784	193,761	195,484	205,709	201,595	190,997	199,908	208,978	217,321	225,156	233,302	16.7%	4.1%
Grants	42,190	44,875	53,613	57,639	66,027	66,221	66,221	69,365	74,071	77,918	81,959	86,205	24.3%	5.4%
Sales & Service, Educational	767	925	1,436	1,481	2,224	2,058	2,058	2,253	2,468	2,705	2,966	3,252	44.3%	9.6%
Auxiliary Enterprises	60,570	65,030	68,923	55,461	14,473	41,242	58,254	67,922	72,905	74,623	76,388	78,197	15.1%	6.2%
Other Operating	7,008	7,438	8,129	6,629	5,023	3,969	4,769	5,487	6,310	6,560	6,829	7,120	29.8%	8.5%
State Appropriations	111,859	117,668	122,802	127,688	133,768	134,090	139,416	143,155	147,041	151,054	154,296	158,453	10.7%	2.6%
Other NonOperating	28,738	28,322	36,106	35,738	47,702	62,141	61,901	33,815	36,680	38,622	39,897	40,899	21.0%	-5.2%
Total Revenues	439,843	459,042	484,770	480,120	474,927	511,316	523,616	521,905	548,453	568,803	587,490	607,428	16.4%	3.0%
% Growth	5.1%	4.4%	5.6%	-1.0%	-1.1%	7.7%	10.3%	-0.3%	5.1%	3.7%	3.3%	3.4%		
Expenses														
Salaries & Fringe	249,312	262,133	274,695	284,516	275,253	295,289	292,206	300,780	310,082	317,353	328,721	338,462	12.5%	3.0%
Non-personnel	116,761	121,734	128,938	123,928	107,933	131,609	146,332	141,536	151,541	153,181	157,284	162,877	15.1%	2.2%
Scholarships & Fellowships	9,316	9,983	9,641	11,439	14,024	25,526	26,145	12,650	14,313	15,977	17,540	18,980	50.0%	-1.8%
Depreciation	34,127	37,806	42,147	44,482	47,873	48,536	49,240	48,761	48,695	52,608	53,232	56,469	15.8%	2.8%
Interest	18,790	19,896	21,231	18,879	18,800	19,187	18,509	18,107	18,528	18,584	19,234	18,754	3.6%	0.3%
Total Expenses	428,306	451,552	476,652	483,244	463,883	520,147	532,432	521,833	543,159	557,703	576,011	595,542	14.1%	2.3%
% Growth	2.5%	5.4%	5.6%	1.4%	-4.0%	12.1%	14.8%	-2.0%	4.1%	2.7%	3.3%	3.4%		
Operating Margin														
Surplus / (Deficit)	9,424	6,785	6,134	(2,700)	13,706	(8,831)	(8,816)	72	5,294	11,099	11,479	11,886		
UMass OM Calc	2.2%	1.5%	1.3%	-0.6%	2.9%	-1.7%	-1.7%	0.0%	1.0%	2.0%	2.0%	2.0%		

*Q1 Projection development in progress.

Lowell: Enrollment Strategy

- **Overview:** Enhanced technologies; expanded use of contracted services and partnerships; increased on-campus and virtual events; and reorganized transfer recruitment operations.
- **Undergraduate:** Rebuilding undergraduate enrollments to FY22 budgeted levels by FY27 with modest annual growth of 1.0% -- 1.5%. Strategies include implementing SLATE online portal; increasing recruiting area; re-organizing transfer operations; and expanding dual enrollment.
 - New: Annual average growth of 1.0% to 1.5% annually
 - Continuing: Annual average growth of 1.0% to 1.5% annually
- **Graduate:** Expected to grow at a 2.0% annual growth rate despite increasing market competition. Strategies include contracted services with EAB; evaluating pathway partners for International students; implementing "Leads and Opportunities" Salesforce module along with CASS to further speed leads to applications.
- **Online:** Annual average growth of 1.2% annually and 6.2% in total over the forecast period.
- **Occupancy:** Housing occupancy returns fully in FY24.

Lowell: Enrollment Trend

<u>AAGR:</u>	<u>Total:</u>	<u>Undergraduate:</u>	<u>Graduate:</u>	<u>Online Only:</u>
FY17-20:	2.1	3.1	0.1	3.7
FY21-22:	-1.6	-5.9	0.5	21.1
FY23-27:	1.3	1.2	2.0	1.3

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Undergraduate	9,742	10,239	10,555	10,792	10,497	10,334	9,554	9,649	9,794	9,943	10,041	10,141
% Change	2.0%	5.1%	3.1%	2.2%	-2.7%	-1.6%	-9.0%	1.0%	1.5%	1.5%	1.0%	1.0%
Graduate	1,817	1,794	1,804	1,761	1,721	1,770	1,779	1,814	1,851	1,888	1,925	1,964
% Change	3.4%	-1.3%	0.6%	-2.4%	-2.3%	2.9%	3.4%	2.0%	2.0%	2.0%	2.0%	2.0%
Continuing Ed	567	484	285	274	201	211	108	108	108	108	108	108
Online Only	1,784	1,906	1,957	1,963	2,436	2,480	2,878	2,913	2,952	2,990	3,028	3,067
% Change	1.6%	1.7%	-6.2%	-0.2%	17.9%	2.1%	13.2%	1.2%	1.3%	1.3%	1.2%	1.2%
Total	13,910	14,423	14,601	14,790	14,855	14,795	14,318	14,483	14,704	14,928	15,102	15,279
% Change	2.1%	3.7%	1.2%	1.3%	0.4%	-0.4%	-3.6%	1.2%	1.5%	1.5%	1.2%	1.2%

Source: Actuals from student profile.

Lowell: Enrollment by Residency

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
In State	10,890	11,465	11,792	12,080	12,138	12,145	11,507	11,634	11,808	11,985	12,117	12,252
% Change	1.9%	5.3%	2.9%	2.4%	0.5%	0.1%	-5.2%	1.1%	1.5%	1.5%	1.1%	1.1%
Out of State	1,671	1,643	1,614	1,602	1,670	1,629	1,694	1,717	1,745	1,773	1,799	1,824
% Change	-43.1%	-1.7%	-1.8%	-0.7%	4.2%	-2.4%	1.4%	1.4%	1.6%	1.6%	1.4%	1.4%
International	1,349	1,316	1,196	1,109	1,047	1,021	1,117	1,132	1,151	1,170	1,187	1,203
% Change		-2.4%	-9.2%	-7.2%	-5.6%	-2.5%	6.7%	1.4%	1.6%	1.6%	1.4%	1.4%
Total	13,910	14,423	14,601	14,790	14,855	14,795	14,318	14,483	14,704	14,928	15,102	15,279
% Change	2.1%	3.7%	1.2%	1.3%	0.4%	-0.4%	-3.6%	1.2%	1.5%	1.5%	1.2%	1.2%

Source: Actuals from student profile.

Lowell: Enrollment by New vs. Continuing

Undergraduate (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
New	2,673	2,884	3,029	3,223	2,845	2,800	2,515	2,540	2,578	2,618	2,643	2,670
% Change	-1.1%	7.9%	5.0%	6.4%	-11.7%	-1.6%	-11.6%	1.0%	1.5%	1.5%	1.0%	1.0%
Continuing	7,069	7,356	7,526	7,569	7,651	7,534	7,039	7,109	7,216	7,325	7,398	7,471
% Change	3.2%	4.1%	2.3%	0.6%	1.1%	-1.5%	-8.0%	1.0%	1.5%	1.5%	1.0%	1.0%
Undergraduate Total	9,742	10,240	10,555	10,792	10,496	10,334	9,554	9,649	9,794	9,943	10,041	10,141
% Change	2.0%	5.1%	3.1%	2.2%	-2.7%	-1.5%	-9.0%	1.0%	1.5%	1.5%	1.0%	1.0%

Source: Actuals from student profile.

Lowell: Staffing

Employee FTEs	Actual				Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Restricted											
Faculty	7	8	15	16	16	17	18	19	20	20	21
Staff	74	82	88	98	98	108	112	116	121	126	131
Total Restricted	81	91	102	114	114	125	130	135	141	146	152
# Change		9	11	12	-	11	5	5	5	6	6
% Change		10%	11%	11%	0%	9%	4%	4%	4%	4%	4%
Unrestricted General University Ops											
Faculty	825	837	839	767	801	793	815	815	815	815	815
Staff	979	974	988	841	975	887	942	942	942	942	942
<i>Executive/Admin/Managerial</i>	63	70	74	68	-	69	-	-	-	-	-
<i>Professional Nonfaculty</i>	658	678	687	576	-	629	-	-	-	-	-
<i>Secretarial/Clerical</i>	52	50	51	35	-	41	-	-	-	-	-
<i>Technical/Paraprofessional</i>	68	67	67	62	-	59	-	-	-	-	-
<i>Skilled Crafts</i>	52	43	43	38	-	35	-	-	-	-	-
<i>Service Maintenance Workers</i>	86	65	66	62	-	54	-	-	-	-	-
<i>Unspecified</i>											
Total General University Ops	1,804	1,811	1,827	1,608	1,776	1,680	1,757	1,757	1,757	1,757	1,757
# Change		7	16	(218)	167	(96)	77	-	-	-	-
% Change		0%	1%	-14%	9%	-6%	4%	0%	0%	0%	0%
Unrestricted Aux./Independent Business											
Faculty	-	-	-	-	-	-	-	-	-	-	-
Staff	40	75	71	60	70	59	63	63	63	63	63
Total Aux./Independent Business	40	75	71	60	70	59	63	63	63	63	63
# Change		35	(4)	(11)	10	(11)	4	-	-	-	-
% Change		46%	-6%	-18%	14%	-19%	6%	0%	0%	0%	0%
Total Faculty & Staff	1,925	1,976	1,999	1,782	1,960	1,864	1,950	1,955	1,960	1,966	1,972
# Change		51	23	(217)	177	(96)	86	5	5	6	6
% Change		3%	1%	-12%	9%	-5%	4%	0%	0%	0%	0%

FY22 budget staffing includes 178 vacant positions filled; no new positions proposed

Lowell: Staffing

Faculty & staff of 1,864 grows on average 1% over the forecast period.

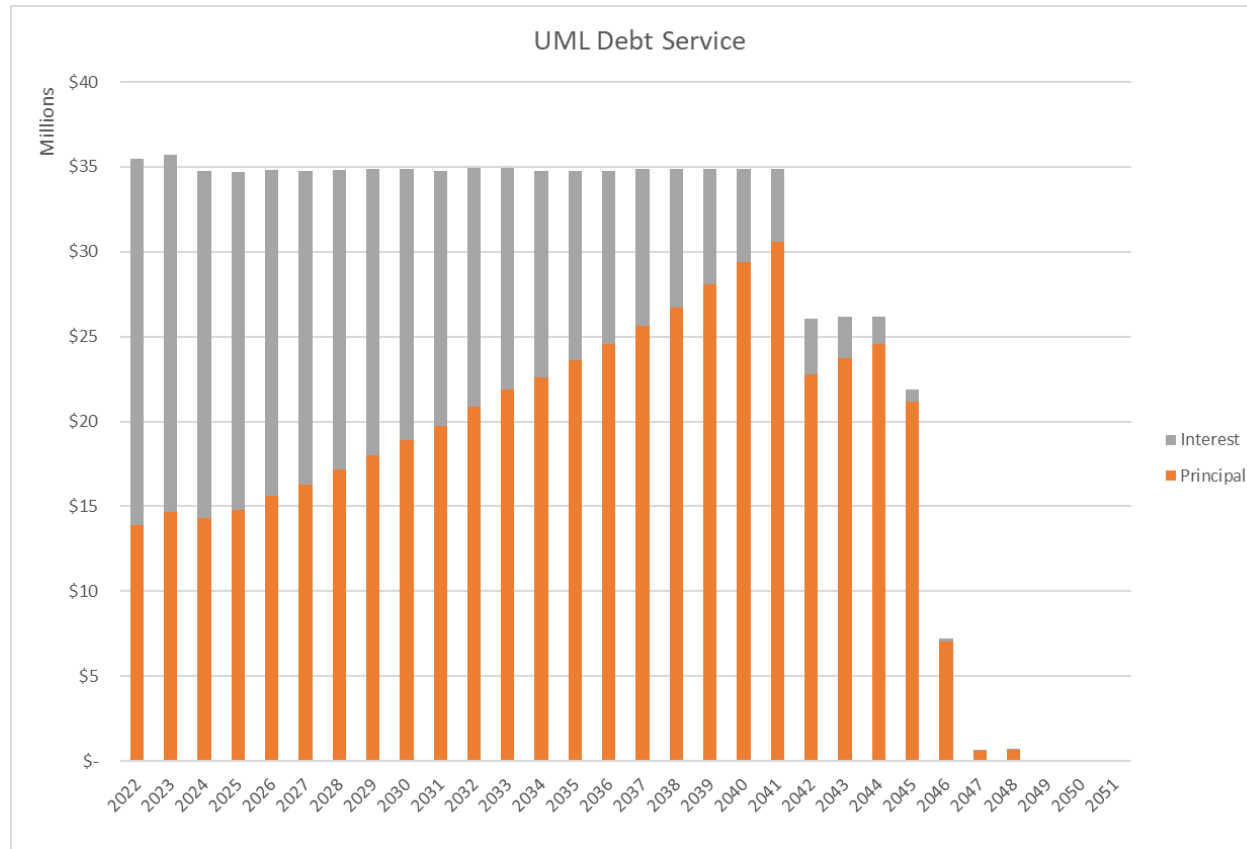
General Operations: 90% of total employees; faculty & staff that support general university operations	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		1,680	47%	53%
	FY17-20:	0.6	0.8	0.5
	FY21-22:	-3.8	-2.6	-4.7
	FY23-27:	0.9	0.6	1.2
Auxiliary / Independent Business Lines: 3% of total employees, including housing & dining	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		59	0%	100%
	FY17-20:	40.7	0.0	40.7
	FY21-22:	-8.4	0.0	-8.4
	FY23-27:	1.4	0.0	1.4
Restricted: 7% of total employees; faculty & staff funded by grant & endowed funds	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		125	14%	86%
	FY17-20:	12.0	47.5	8.4
	FY21-22:	10.7	9.5	10.9
	FY23-27:	4.0	4.0	4.0

Lowell: Staffing Ratios

	Actual				Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
<i>Student - Faculty</i>											
Student (FTE)	14,423	14,601	14,790	14,855	14,795	14,795	14,483	14,704	14,928	15,102	15,279
Faculty (FTE)	832	845	853	783	817	810	833	833	834	835	836
Student-Faculty Ratio	17.3	17.3	17.3	19.0	18.1	18.3	17.4	17.6	17.9	18.1	18.3
<i>Staff - Faculty (All)</i>											
Staff (FTE)	1,093	1,131	1,146	999	1,143	1,054	1,117	1,121	1,126	1,131	1,136
Faculty (FTE)	832	845	853	783	817	810	833	833	834	835	836
Staff-Faculty Ratio	1.3	1.3	1.3	1.3	1.4	1.3	1.3	1.3	1.3	1.4	1.4
<i>Staff - Faculty (E&G)</i>											
Staff (FTE)	979	974	988	841	975	887	942	942	942	942	942
Faculty (FTE)	825	837	839	767	801	793	815	815	815	815	815
Staff-Faculty Ratio (E&G)	1.2	1.2	1.2	1.1	1.2	1.1	1.2	1.2	1.2	1.2	1.2

Lowell: Key Ratios

Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Operating Margin (%)	2.2%	1.5%	1.3%	-0.6%	2.9%	-1.7%	-1.7%	0.0%	1.0%	2.0%	2.0%	2.0%
Operating Margin (\$)	9,424	6,785	6,134	(2,700)	13,706	(8,831)	(8,816)	72	5,294	11,099	11,479	11,886
Operating Cash Flow Margin (%)	14.6%	14.3%	14.7%	13.1%	16.9%	8.3%	6.3%	13.6%	13.9%	15.1%	15.0%	15.0%
Operating Cash Flow Margin (\$)	62,350	64,009	69,416	61,446	78,130	38,559	29,546	69,658	74,640	83,368	85,560	88,677
Debt Service Burden (%)	7.3%	7.4%	7.7%	6.8%	4.9%	6.5%	6.4%	6.7%	6.4%	6.2%	6.0%	5.8%
Debt Service Coverage (x)	2.0	1.9	1.9	1.9	3.4	1.1	0.9	2.0	2.2	2.4	2.5	2.6
Financial Leverage (x)	0.26	0.25	0.24	0.26	0.38	0.25	0.41	0.39	0.40	0.40	0.38	0.39
Total Debt (\$ in thousands)	487,253	500,656	556,087	552,657	557,367	552,978	552,173	489,943	479,546	481,124	503,687	485,255
Total Cash & Investments to Op Expenses (x)	0.43	0.42	0.42	0.44	0.65	0.42	0.57	0.52	0.50	0.49	0.47	0.46
Enrollment	13,910	14,423	14,601	14,790	14,855	14,795	14,318	14,483	14,704	14,928	15,102	15,279
Enrollment (% Change)	2.1%	3.7%	1.2%	1.3%	0.4%	-0.4%	-3.6%	1.2%	1.5%	1.5%	1.2%	1.2%



Key Ratio

	Actual					Budget	Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Debt Service Burden (%)	7.3%	7.4%	7.7%	6.8%	4.9%	6.5%	6.4%	6.7%	6.4%	6.2%	6.0%	5.8%
Debt Service Coverage (x)	2.0	1.9	1.9	1.9	3.4	1.1	0.9	2.0	2.2	2.4	2.5	2.6
Financial Leverage (x)	0.26	0.25	0.24	0.26	0.38	0.25	0.41	0.39	0.40	0.40	0.38	0.39
Total Debt (\$ in thousands)	487,253	500,656	556,087	552,657	557,367	552,978	552,173	489,943	479,546	481,124	503,687	485,255

UMass Chan Medical School

About UMass Chan Medical School

- Our mission is to advance the health and wellness of our diverse communities throughout Massachusetts and across the world by leading and innovating in education, research, health care delivery and public service.
- UMass Chan Medical School was founded in 1962 to provide affordable, high-quality medical education to state residents and to increase the number of primary care physicians practicing in underserved areas of the state.



UMass Chan Medical School: Revenue & Expenses

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY23-27	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Cumulative	Avg. Annual
Gross Tuition & Fees	24,206	28,609	34,681	37,769	38,823	40,176	40,176	40,674	43,113	46,759	51,741	56,464	38.8%	8.6%
Tuition Discounts	(2,751)	(3,320)	(4,235)	(5,139)	(4,204)	(5,967)	(5,967)	(6,196)	(6,567)	(7,123)	(7,882)	(8,601)	38.8%	8.6%
Discount Rate	11.4%	11.6%	12.2%	13.6%	29.2%	14.9%	14.9%	15.2%	15.2%	15.2%	15.2%	15.2%	0.0%	0.0%
Net Tuition & Fees	21,455	25,289	30,446	32,630	34,619	34,209	34,209	34,478	36,546	39,636	43,859	47,863	38.8%	8.6%
Grants	275,662	269,721	286,603	280,279	348,461	331,171	317,371	351,183	385,152	425,317	441,086	457,413	30.2%	6.9%
Sales & Service, Educational	12,790	14,023	15,023	17,190	17,574	18,158	18,158	18,610	19,075	19,552	20,041	20,542	10.4%	2.5%
Auxiliary Enterprises	29,626	30,797	31,561	32,675	31,249	35,254	35,254	35,299	36,079	36,877	37,694	38,530	9.2%	2.2%
Other Operating	190,611	268,909	183,268	194,723	166,678	191,314	191,314	130,075	132,230	136,262	139,155	139,664	7.4%	1.8%
State Appropriations	52,250	54,560	57,959	57,396	57,686	56,867	56,867	59,094	60,499	61,939	63,403	64,905	9.8%	2.4%
Other NonOperating	37,945	27,800	32,008	26,059	23,793	30,119	25,235	31,755	38,601	40,118	41,596	44,580	40.4%	9.1%
Independent Business Lines	371,618	274,555	266,509	280,620	311,262	285,240	280,376	334,705	343,058	351,617	360,436	369,474	10.4%	2.5%
Total Revenues	991,957	965,654	903,377	921,572	991,322	982,332	958,784	995,199	1,051,240	1,111,318	1,147,270	1,182,971	18.9%	4.3%
% Growth	2.9%	-2.7%	-6.4%	2.0%	7.6%	-0.9%	-3.3%	3.8%	5.6%	5.7%	3.2%	3.1%		
Expenses														
Salaries & Fringe	407,304	416,112	433,752	438,008	431,173	476,759	463,652	543,038	569,956	599,465	619,561	640,028	17.9%	4.2%
Non-personnel	439,960	435,266	343,729	369,200	451,230	398,028	384,085	327,859	352,312	373,642	386,958	400,774	22.2%	5.2%
Scholarships & Fellowships	-	-	-	-	-	-	-	-	-	-	-	-		
Depreciation	64,801	65,013	64,722	65,478	67,213	65,876	66,801	71,661	76,404	85,148	86,989	88,830	24.0%	5.6%
Interest	30,067	26,753	24,830	19,256	18,108	19,826	23,152	30,482	29,529	28,490	28,037	26,979	-11.5%	-3.0%
Total Expenses	942,132	943,144	867,033	891,942	967,724	960,489	937,690	973,040	1,028,201	1,086,745	1,121,545	1,156,611	18.9%	4.3%
% Growth	-4.6%	0.1%	-8.1%	2.9%	8.5%	-0.7%	-3.1%	3.8%	5.7%	5.7%	3.2%	3.1%		
Operating Margin														
UMass OM Calc Revenues	972,803	964,299	898,882	919,648	995,455	980,118	956,570	992,643	1,048,778	1,108,952	1,144,834	1,180,376		
Total Expenses	942,132	943,144	867,033	891,942	967,724	960,489	937,690	973,040	1,028,201	1,086,745	1,121,545	1,156,611		
Surplus / (Deficit)	30,671	21,155	31,849	27,706	27,731	19,629	18,880	19,603	20,577	22,207	23,289	23,765		
UMass OM Calc	3.2%	2.2%	3.5%	3.0%	2.8%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%		

UMass Chan Medical School: Enrollment by Career

<u>AAGR:</u>	<u>Total:</u>
FY17-20:	3.2
FY21-22:	4.2
FY23-27:	2.9

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Graduate	1,070	1,074	1,153	1,195	1,242	1,252	1,246	1,248	1,279	1,327	1,384	1,434
% Change	1.3%	0.4%	7.3%	3.7%	3.9%	0.8%	0.3%	0.1%	2.5%	3.8%	4.3%	3.6%
Total	1,070	1,074	1,153	1,195	1,242	1,252	1,246	1,248	1,279	1,327	1,384	1,434
% Change	1.3%	0.4%	7.3%	3.7%	3.9%	0.8%	0.3%	0.1%	2.5%	3.8%	4.3%	3.6%

Source: Actuals from student profile.

UMass Chan Medical School: Enrollment by Residency

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
In State	788	768	788	791	813	821	788	832	855	878	878	878
% Change	0.0%	-2.5%	2.6%	0.3%	2.8%	1.0%	-3.1%	5.5%	2.8%	2.7%	0.0%	0.0%
Out of State	282	306	364	405	429	431	340	298	306	331	388	438
% Change	5.2%	8.5%	19.1%	11.0%	6.1%	0.5%	-20.8%	-12.3%	2.7%	8.2%	17.2%	12.9%
International							118	118	118	118	118	118
% Change								0.0%	0.0%	0.0%	0.0%	0.0%
Total	1,070	1,074	1,153	1,195	1,242	1,252	1,246	1,248	1,279	1,327	1,384	1,434
% Change	1.3%	0.4%	7.3%	3.7%	3.9%	0.8%	0.3%	0.1%	2.5%	3.8%	4.3%	3.6%

Source: Actuals from student profile.

UMass Chan Medical School: Staffing

Employee FTEs	Actual				Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Restricted											
Faculty	239	250	243	241	246	252	231	246	264	269	274
Staff	852	854	876	855	858	842	804	858	921	937	953
Total Restricted	1,091	1,104	1,118	1,096	1,104	1,093	1,035	1,104	1,185	1,206	1,227
# change		13	14	(23)	8	(2)	(58)	69	81	21	21
% change		1.2%	1.3%	-2.0%	0.8%	-0.2%	-5.3%	6.7%	7.3%	1.8%	1.7%
Unrestricted General University Ops											
Faculty	220	216	211	221	233	237	238	244	250	255	260
Staff	1,009	1,018	1,024	996	1,003	1,084	1,025	1,050	1,074	1,095	1,115
Executive/Admin/Managerial	58	53	56	51		64	-	-	-	-	-
Professional Nonfaculty	666	691	727	731		807	-	-	-	-	-
Secretarial/Clerical	126	120	96	69		69	-	-	-	-	-
Technical/Paraprofessional	94	90	86	88		92	-	-	-	-	-
Skilled Crafts	12	12	9	10		13	-	-	-	-	-
Service Maintenance Workers	54	52	49	47		39	-	-	-	-	-
Unspecified							-	-	-	-	-
Total General University Ops	1,229	1,234	1,234	1,217	1,236	1,321	1,263	1,294	1,324	1,350	1,375
# change		5	1	(17)	19	104	(58)	31	30	26	25
% change		0.4%	0.0%	-1.4%	1.5%	8.5%	-4.4%	2.5%	2.3%	2.0%	1.9%
Unrestricted Aux./Independent Business											
Faculty	15	13	10	11	10	12	10	10	10	10	10
Staff	1,241	1,302	1,316	1,320	1,302	1,349	1,322	1,322	1,322	1,324	1,326
Total Aux./Independent Business	1,256	1,315	1,326	1,331	1,312	1,361	1,332	1,332	1,332	1,334	1,336
# change		58	11	5	(19)	30	(29)	-	-	2	2
% change		4.7%	0.8%	0.4%	-1.4%	2.2%	-2.1%	0.0%	0.0%	0.2%	0.1%
Total Faculty & Staff	3,576	3,653	3,679	3,644	3,652	3,775	3,630	3,730	3,841	3,890	3,938
# change		76	26	(35)	8	123	(145)	100	111	49	48
% change		2.1%	0.7%	-0.9%	0.2%	3.4%	-3.8%	2.8%	3.0%	1.3%	1.2%

UMass Chan Medical School: Staffing

Faculty & staff of 3,775 grows on average 0.9% over the forecast period.

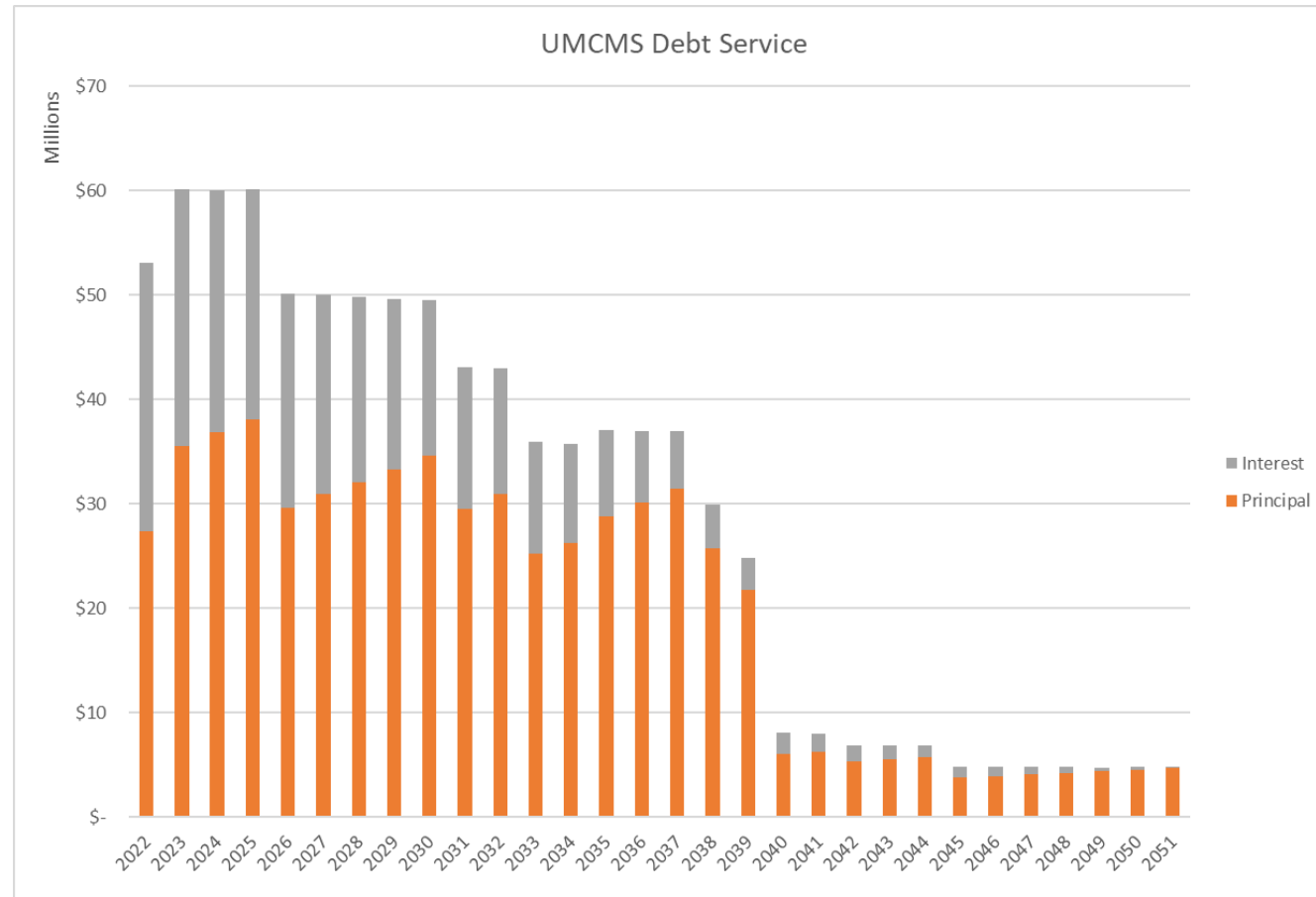
General Operations: 35% of total employees; faculty & staff that support general university operations	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		1,321	18%	82%
	FY17-20:	0.2	-2.0	0.7
	FY21-22:	3.6	6.1	3.1
	FY23-27:	0.8	1.9	0.6
Auxiliary / Independent Business Lines: 36% of total employees	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		1,361	1%	99%
	FY17-20:	2.7	0.0	3.0
	FY21-22:	1.3	0.0	1.3
	FY23-27:	-0.4	0.0	-0.3
Restricted: 29% of total employees; faculty & staff funded by grant & endowed funds	<u>FY22</u>	<u>Total</u>	<u>Faculty</u>	<u>Staff</u>
		1,093	23%	77%
	FY17-20:	0.9	0.9	1.4
	FY21-22:	-1.1	1.9	-2.0
	FY23-27:	2.4	1.9	2.6

UMass Chan Medical School: Staffing Ratios

	Actual					Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Student - Faculty												
Student (FTE)	1,070	1,074	1,153	1,195	1,242	1,252	1,246	1,248	1,279	1,327	1,384	1,434
Faculty (FTE)	883	473	479	463	473	489	501	479	500	524	534	544
Student-Faculty Ratio	1.2	2.3	2.4	2.6	2.6	2.6	2.5	2.6	2.6	2.5	2.6	2.6
Staff - Faculty (All)												
Staff (FTE)	1,245	3,103	3,174	3,215	3,170	3,163	3,275	3,151	3,230	3,317	3,356	3,394
Faculty (FTE)	883	473	479	463	473	489	501	479	500	524	534	544
Staff-Faculty Ratio	1.4	6.6	6.6	6.9	6.7	6.5	6.5	6.6	6.5	6.3	6.3	6.2
Staff - Faculty (E&G)												
Staff (FTE)	1,024	1,009	1,018	1,024	996	1,003	1,084	1,025	1,050	1,074	1,095	1,115
Faculty (FTE)	861	220	216	211	221	233	237	238	244	250	255	260
Staff-Faculty Ratio (E&G)	1.2	4.6	4.7	4.9	4.5	4.3	4.6	4.3	4.3	4.3	4.3	4.3

UMass Chan Medical School: Key Ratios

Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Operating Margin (%)	3.2%	2.2%	3.5%	3.0%	2.8%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
<i>Operating Margin (\$)</i>	30,671	21,155	31,849	27,308	27,731	19,629	18,880	19,603	20,577	22,207	23,289	23,765
Operating Cash Flow Margin (%)	12.8%	11.5%	13.7%	12.6%	11.3%	10.8%	11.9%	12.9%	12.6%	12.7%	12.4%	12.0%
<i>Operating Cash Flow Margin (\$)</i>	124,814	110,201	123,144	116,794	112,825	106,068	114,454	128,798	133,128	141,700	143,042	142,193
Debt Service Burden (%)	6.0%	5.1%	5.5%	4.9%	2.1%	5.2%	5.7%	6.4%	6.1%	6.4%	5.6%	5.5%
Debt Service Coverage (x)	2.2	2.3	2.6	2.7	5.6	2.1	2.2	2.1	2.1	2.0	2.3	2.3
Financial Leverage (x)	0.45	0.67	0.71	0.89	1.01	0.65	0.72	0.76	0.81	0.89	0.99	1.09
Total Debt (\$ in thousands)	622,941	611,819	616,132	477,752	639,298	751,471	951,771	912,605	872,113	824,133	783,029	740,929
Total Cash & Investments to Op Expenses (x)	0.38	0.52	0.61	0.57	0.76	0.60	0.83	0.84	0.84	0.86	0.90	0.91
Enrollment	1,070	1,074	1,153	1,195	1,242	1,252	1,246	1,248	1,279	1,327	1,384	1,434
<i>Enrollment (% Change)</i>	1.3%	0.4%	7.3%	3.7%	3.9%	0.8%	0.3%	0.1%	2.5%	3.8%	4.3%	3.6%



Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Debt Service Burden (%)	6.0%	5.1%	5.5%	4.9%	2.1%	5.2%	5.7%	6.4%	6.1%	6.4%	5.6%	5.5%
Debt Service Coverage (x)	2.2	2.3	2.6	2.7	5.6	2.1	2.2	2.1	2.1	2.0	2.3	2.3
Financial Leverage (x)	0.45	0.67	0.71	0.70	1.01	0.65	0.72	0.76	0.81	0.89	0.99	1.09
Total Debt (\$ in thousands)	622,941	611,819	616,132	606,847	639,298	751,471	951,771	912,605	872,113	824,133	783,029	740,929

University



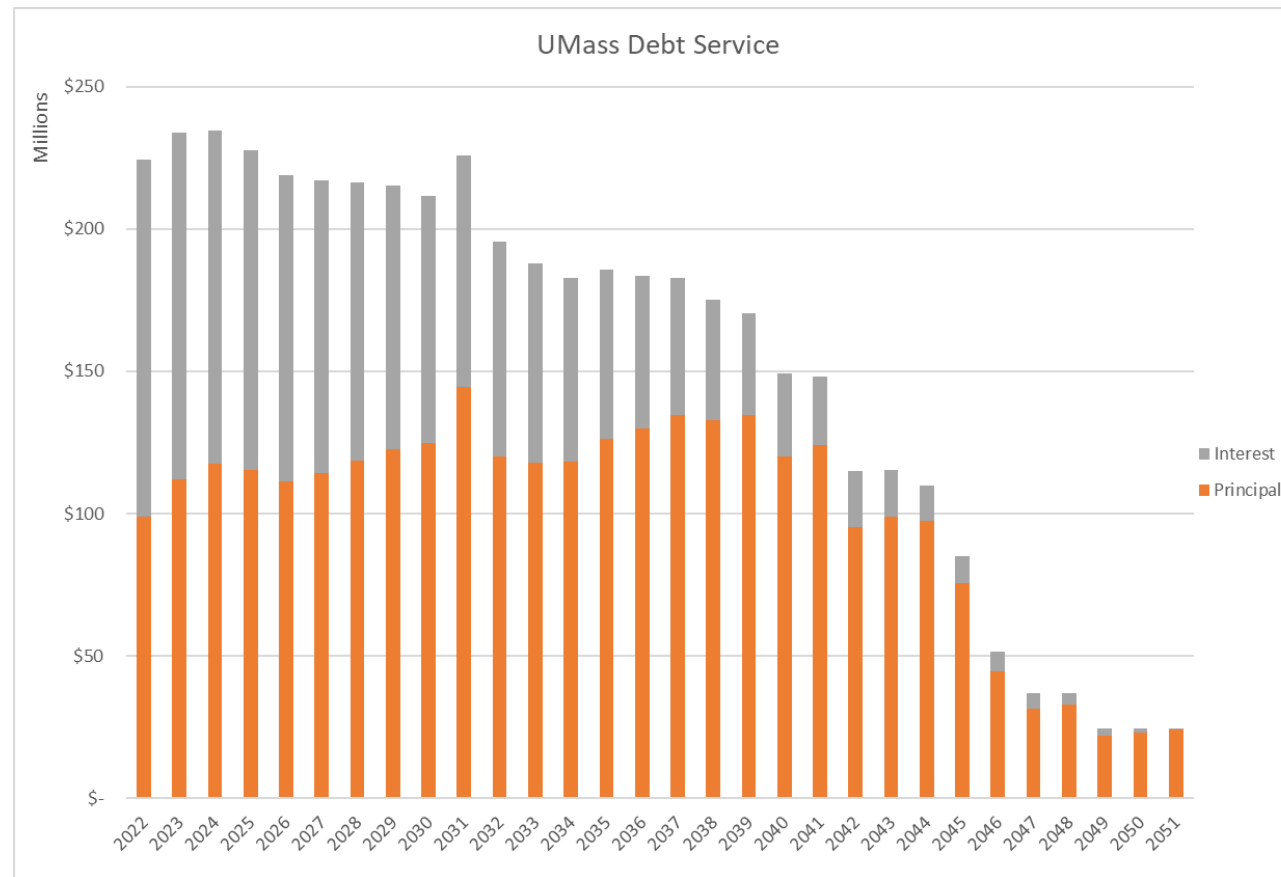
University: Revenue & Expenses

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY23-27	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Cumulative	Avg. Annual
Gross Tuition & Fees	1,136,540	1,186,773	1,223,734	1,260,327	1,275,742	1,279,182	1,269,024	1,323,971	1,368,279	1,424,353	1,483,771	1,537,506	16.1%	3.9%
Tuition Discounts	(288,708)	(311,947)	(328,830)	(343,030)	(345,128)	(371,518)	(362,416)	(376,824)	(389,728)	(404,951)	(422,189)	(438,957)	16.5%	3.9%
Discount Rate	25.4%	26.3%	26.9%	27.2%	27.1%	29.0%	28.6%	28.5%	28.5%	28.4%	28.5%	28.5%	0.3%	-0.0%
Net Tuition & Fees	847,832	874,826	894,904	917,297	930,614	907,664	906,608	947,147	978,551	1,019,401	1,061,582	1,098,550	16.0%	3.9%
Grants	560,081	560,990	593,086	581,372	667,148	631,956	632,039	676,170	722,313	775,019	802,777	831,538	23.0%	5.7%
Sales & Service, Educational	28,910	30,591	34,985	31,248	30,253	33,087	33,963	36,573	37,533	38,534	39,577	40,662	11.2%	3.7%
Auxiliary Enterprises	400,822	416,733	441,795	378,314	163,811	392,819	427,115	455,352	471,785	485,021	499,733	512,334	12.5%	3.7%
Other Operating	233,717	311,119	222,074	238,188	199,854	240,548	239,262	184,010	188,322	194,072	198,739	202,080	9.8%	-2.7%
State Appropriations	720,817	751,894	780,222	810,518	845,482	840,544	872,295	896,416	921,009	946,577	971,590	998,078	11.3%	2.7%
Other NonOperating	195,089	197,142	231,504	222,129	288,591	346,557	345,822	215,044	230,795	243,021	249,646	256,980	19.5%	-3.9%
Independent Business	371,618	274,555	266,509	280,620	311,262	285,240	280,376	334,705	343,058	351,617	360,436	369,474	10.4%	5.9%
Total Revenues	3,358,886	3,417,850	3,465,079	3,459,686	3,437,015	3,678,416	3,737,481	3,745,417	3,893,366	4,053,261	4,184,079	4,309,696	15.1%	2.9%
% Growth	3.8%	1.8%	1.4%	-0.2%	-0.7%	7.0%	8.7%	0.2%	4.0%	4.1%	3.2%	3.0%		
Expenses														
Salaries & Fringe	1,847,346	1,901,896	1,970,869	2,012,669	2,008,909	2,079,739	2,093,270	2,225,760	2,304,397	2,371,508	2,449,993	2,523,892	13.4%	3.8%
Non-Personnel	982,566	1,007,943	943,685	949,638	897,115	1,014,610	1,048,950	990,578	1,033,663	1,068,505	1,106,554	1,145,571	15.6%	1.8%
Scholarships & Fellowships	47,701	50,402	49,507	65,464	80,024	124,442	124,358	60,559	60,841	63,173	65,425	67,574	11.6%	-8.0%
Depreciation	249,669	261,417	276,638	288,667	300,201	308,185	309,945	319,341	328,972	343,782	348,869	355,335	11.3%	2.8%
Interest	110,069	115,851	116,217	109,186	105,468	113,103	114,544	118,484	116,407	116,200	116,184	113,807	-3.9%	-0.1%
Total Expenses	3,237,351	3,336,260	3,356,916	3,424,616	3,391,718	3,640,079	3,691,067	3,714,722	3,844,280	3,963,169	4,087,025	4,206,180	13.2%	2.7%
% Growth	0.8%	3.1%	0.6%	2.0%	-1.0%	7.3%	8.8%	0.6%	3.5%	3.1%	3.1%	2.9%		
Operating Margin														
UMass OM Calc Revenues	3,326,336	3,416,188	3,449,697	3,462,090	3,459,992	3,670,552	3,729,617	3,737,211	3,885,254	4,045,245	4,175,993	4,301,451		
Total Expenses	3,237,351	3,336,260	3,356,916	3,424,616	3,391,716	3,640,079	3,691,067	3,714,722	3,844,280	3,963,169	4,087,025	4,206,180		
Surplus / (Deficit)	88,985	79,928	92,781	37,474	68,276	30,472	38,551	22,489	40,974	82,076	88,969	95,272		
UMass OM Calc	2.7%	2.3%	2.7%	1.1%	2.0%	0.8%	1.0%	0.6%	1.1%	2.0%	2.1%	2.2%		

University: Key Ratios

Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Operating Margin (%)	2.7%	2.3%	2.7%	1.1%	2.0%	0.8%	1.0%	0.6%	1.1%	2.0%	2.1%	2.2%
Operating Margin (\$)	88,985	79,928	92,781	37,474	68,276	30,472	38,551	22,489	40,974	82,076	88,969	95,272
Operating Cash Flow Margin (%)	13.7%	13.2%	14.0%	13.1%	13.7%	16.5%	14.2%	14.9%	14.9%	15.6%	15.4%	15.2%
Operating Cash Flow Margin (\$)	447,796	443,101	475,586	447,301	459,974	609,838	520,938	561,524	584,471	635,121	649,195	659,193
Debt Service Burden (%)	6.6%	6.5%	6.6%	6.4%	3.6%	6.1%	6.0%	6.3%	6.1%	6.0%	5.8%	5.7%
Debt Service Coverage (x)	2.1	2.1	2.1	2.0	3.8	2.8	2.4	2.4	2.5	2.7	2.7	2.7
Financial Leverage (x)	0.41	0.47	0.50	0.48	0.68	0.51	0.53	0.60	0.62	0.64	0.67	0.70
Total Debt (\$ in thousands)	3,056,133	3,067,106	3,119,326	3,252,394	3,277,247	3,536,019	3,817,179	3,535,602	3,446,764	3,465,143	3,423,092	3,335,390
Total Cash & Investments to Op Expenses (x)	0.52	0.57	0.61	0.61	0.82	0.64	0.70	0.72	0.71	0.71	0.72	0.72
Enrollment	63,978	64,530	65,348	66,005	66,070	65,609	64,768	65,611	66,055	67,103	68,340	69,129
Enrollment (% Change)	1.0%	0.9%	1.3%	1.0%	0.1%	-0.7%	-2.0%	1.3%	0.7%	1.6%	1.8%	1.2%



Key Ratio

	Actual					Budget	Q1 Projection	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Debt Service Burden (%)	6.6%	6.5%	6.6%	6.4%	3.6%	6.1%	6.0%	6.3%	6.1%	6.0%	5.8%	5.7%
Debt Service Coverage (x)	2.1	2.1	2.1	2.0	3.8	2.8	2.4	2.4	2.5	2.7	2.7	2.7
Financial Leverage (x)	0.41	0.47	0.50	0.48	0.68	0.51	0.53	0.60	0.62	0.64	0.67	0.70
Total Debt (\$ in thousands)	3,056,133	3,067,106	3,119,326	3,252,394	3,277,247	3,536,019	3,817,179	3,535,602	3,446,764	3,465,143	3,423,092	3,335,390

#12. Appendices

- A. Legislative Requirement
- B. Tuition & Fees
- C. Annual Financial Report
- D. Credit Ratings
- E. UMass Accountability and Transparency
- F. Appendices to UMass Efficiency & Effectiveness Section



University of Massachusetts

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

Appendix A: Legislative Requirement

Legislative Requirement

Excerpt from line item 7100-0200 of Chapter 24 of the Acts of 2021:

Line item 7100-0200: *For the operation of the University of Massachusetts; provided, that not later than January 17, 2022, the university shall meet with the chairs of the house and senate committees on ways and means and the chairs of the joint committee on higher education to review: (i) its five-year projected spending plan for academic years 2021 through 2026, including anticipated cost savings initiatives and efforts to reduce student tuition and fees; and (ii) a comprehensive report on spending over the previous academic year; provided further, that the report shall include, but not be limited to: (a) personnel costs, delineated by staff type and type of pay, including, but not limited to, base pay and bonus pay; (b) the number of full-time equivalent employees, delineated by staff type; (c) non-instructional administrative costs; (d) costs related to asset management and acquisition; (e) annual enrollment growth; (f) annual tuition and fee growth; (g) fee structure; (h) expenditures on direct student financial aid; (i) average financial aid award per financial aid recipient...*

Table of Legislative Requirements

Requirement	Page Numbers
<i>(i)</i> 5-Year Financial Forecast	70-173
<i>(i)</i> Cost savings initiatives and efforts to reduce tuition and fees	186-211
<i>(ii, a)</i> Personnel costs, delineated by staff type and type of pay, including, but not limited to base pay and bonus pay	104-114
<i>(ii, b)</i> Number of full-time equivalent employees by staff type	115
<i>(ii, c)</i> Non-instructional administrative costs	102-103
<i>(ii, d)</i> Costs related to asset management and acquisition	131-156
<i>(ii, e)</i> Annual enrollment growth	34-50
<i>(ii, f)</i> Annual tuition and fee growth	Appendix B
<i>(ii, g)</i> Fee structure	Appendix B
<i>(ii, h)</i> Expenditures on direct student financial aid	124-130
<i>(ii, i)</i> Average financial aid award per financial aid recipient	130

Upon request, additional information and background on these topics can be produced.

Appendix B: Tuition & Fees



Tuition: Undergraduate

In State

	FY21	FY22	\$ Change	% Change
Amherst	\$15,791	\$15,791	\$0	0.0%
Boston	\$14,187	\$14,187	\$0	0.0%
Dartmouth	\$13,833	\$13,833	\$0	0.0%
Lowell	\$15,078	\$15,078	\$0	0.0%

Out of State

	FY21	FY22	\$ Change	% Change
Amherst	\$35,779	\$36,316	\$537	1.5%
Boston	\$34,649	\$34,649	\$0	0.0%
Dartmouth	\$29,578	\$29,578	\$0	0.0%
Lowell	\$33,004	\$33,004	\$0	0.0%

Mandatory Fees: Undergraduate

		FY21	FY22	\$ Change	% Change
Amherst	Technology Fee	\$400	\$400	\$0	0.0%
	Student Activities Fee	\$248	\$248	\$0	0.0%
	Total Mandatory Fees	\$648	\$648	\$0	0.0%
Boston	Technology Fee	\$400	\$400	\$0	0.0%
	Student Activities Fee	\$110	\$110	\$0	0.0%
	Total Mandatory Fees	\$510	\$510	\$0	0.0%
Dartmouth	Technology Fee	\$400	\$400	\$0	0.0%
	Student Activities Fee	\$175	\$175	\$0	0.0%
	Total Mandatory Fees	\$575	\$575	\$0	0.0%
Lowell	Technology Fee	\$400	\$400	\$0	0.0%
	Student Activities Fee	\$220	\$220	\$0	0.0%
	Total Mandatory Fees	\$620	\$620	\$0	0.0%

- Technology Fee: no changes
- Student Activities Fee: no changes proposed at this time
 - FY21 reflects the approved fee however campuses made adjustments based on hybrid operations
 - FY22 may increase based on student supported / voted changes

Tuition & Mandatory Fees: Undergraduate

In State

	FY21	FY22	\$ Change	% Change
Amherst	\$16,439	\$16,439	\$0	0.0%
Boston	\$14,697	\$14,697	\$0	0.0%
Dartmouth	\$14,408	\$14,408	\$0	0.0%
Lowell	\$15,698	\$15,698	\$0	0.0%

Out of State

	FY21	FY22	\$ Change	% Change
Amherst	\$36,427	\$36,964	\$537	1.5%
Boston	\$35,159	\$35,159	\$0	0.0%
Dartmouth	\$30,153	\$30,153	\$0	0.0%
Lowell	\$33,624	\$33,624	\$0	0.0%

Tuition: Graduate

In State

	FY21	FY22	\$ Change	% Change
Amherst	\$14,778	\$14,778	\$0	0.0%
Boston	\$18,433	\$18,433	\$0	0.0%
Dartmouth	\$16,390	\$16,390	\$0	0.0%
Lowell	\$14,590	\$14,590	\$0	0.0%

Out of State

	FY21	FY22	\$ Change	% Change
Amherst	\$33,040	\$33,536	\$496	1.5%
Boston	\$35,980	\$35,980	\$0	0.0%
Dartmouth	\$29,578	\$29,578	\$0	0.0%
Lowell	\$26,370	\$26,370	\$0	0.0%

Mandatory Fees: Graduate

		FY21	FY22	\$ Change	% Change
Amherst	Service Fee	\$1,270	\$1,270	\$0	0.0%
	Health Fee	\$803	\$815	\$12	1.5%
	Student Senate Fee	\$148	\$148	\$0	0.0%
	Total Mandatory Fees	\$2,221	\$2,233	\$12	0.5%
Boston	Technology Fee	\$400	\$400	\$0	0.0%
	Student Activities Fee	\$105	\$105	\$0	0.0%
	Total Mandatory Fees	\$505	\$505	\$0	0.0%
Dartmouth	Technology Fee	\$400	\$400	\$0	0.0%
	Student Activities Fee	\$175	\$175	\$0	0.0%
	Total Mandatory Fees	\$575	\$575	\$0	0.0%
Lowell	Technology Fee	\$400	\$400	\$0	0.0%
	Student Activities Fee	\$220	\$220	\$0	0.0%
	Total Mandatory Fees	\$620	\$620	\$0	0.0%

- Technology Fee: no changes
- Student Activities Fee: no changes proposed at this time
 - FY21 reflects the approved fee however campuses made adjustments based on hybrid operations
 - FY22 may increase based on student supported / voted changes

Tuition & Mandatory Fees: Graduate

In State

	FY21	FY22	\$ Change	% Change
Amherst	\$16,999	\$17,011	\$12	0.1%
Boston	\$18,938	\$18,938	\$0	0.0%
Dartmouth	\$16,965	\$16,965	\$0	0.0%
Lowell	\$15,210	\$15,210	\$0	0.0%

Out of State

	FY21	FY22	\$ Change	% Change
Amherst	\$35,261	\$35,769	\$508	1.4%
Boston	\$36,485	\$36,485	\$0	0.0%
Dartmouth	\$30,153	\$30,153	\$0	0.0%
Lowell	\$26,990	\$26,990	\$0	0.0%

Room & Board: Rates Based on Standard Room & Dining Plan

Room	FY21	FY22	\$Change	% Change
Amherst	\$7,462	\$7,611	\$149	2.0%
Dartmouth	\$10,094	\$10,397	\$303	3.0%
Lowell	\$8,820	\$8,500	-\$320	-3.6%
Boston (P3)	\$10,024	\$10,525	\$501	5.0%

Board	FY21	FY22	\$Change	% Change
Amherst	\$5,867	\$5,984	\$117	2.0%
Boston	\$5,717	\$5,830	\$114	2.0%
Dartmouth	\$5,233	\$5,428	\$195	3.7%
Lowell	\$5,070	\$5,070	\$0	0.0%

Total R&B	FY21	FY22	\$Change	% Change
Amherst	\$13,329	\$13,595	\$266	2.0%
Dartmouth	\$15,327	\$15,825	\$498	3.3%
Lowell	\$13,890	\$13,570	-\$320	-2.3%
Boston	\$15,741	\$16,355	\$615	3.9%

(w/P3 Room)

- **Boston:** P3 room rates are set by P3 Governing Board and are not subject to Board approval.
- **Dartmouth:**
 - P3 room rates are set by P3 Governing Board and are not subject to Board approval; standard P3 room is \$10,107.
 - Remaining room rates set by campus; rate included is a standard room.
- **Lowell:** A major restructuring of housing and dining options, plans and rates was undertaken to align with peers and drive increased occupancy.

Tuition & Mandatory Fees: Medical School

Tuition & Mandatory Fees	FY21	FY22	\$ Change	% Change
Med School In State Tuition	\$36,570	\$37,120	\$550	1.5%
Med School Out of State Tuition	\$62,889	\$63,832	\$943	1.5%
Med School Mandatory Fees	\$2,091	\$2,130	\$39	1.9%
GSN In State Tuition	\$14,275	\$14,490	\$215	1.5%
GSN Regional Tuition	\$17,706	\$17,972	\$266	1.5%
GSN Out of State Tuition	\$19,518	\$19,812	\$294	1.5%
GSN GEP In State Tuition	\$44,512	\$45,180	\$668	1.5%
GSN GEP Regional Tuition	\$50,880	\$51,644	\$764	1.5%
GSN GEP Out of State Tuition	\$57,246	\$58,106	\$860	1.5%
GSN Mandatory Fees	\$1,390	\$1,410	\$20	1.4%
GSBS In State Tuition	\$14,724	\$14,946	\$222	1.5%
GSBS Out of State Tuition	\$32,340	\$32,826	\$486	1.5%
GSBS Mandatory Fees	\$1,056	\$1,072	\$16	1.5%

UNIVERSITY OF MASSACHUSETTS, AMHERST

STUDENT TUITION & FEE SCHEDULES

FY 2022 TUITION & MANDATORY FEES

FY 2022 NON-MANDATORY FEES

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2022 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

FY 2022 TUITION & MANDATORY FEES

SUMMARY TABLE

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (resident)	\$15,791	\$15,791	\$15,791	\$0	0.0%
Undergraduate (regional)	\$28,175	\$28,842	\$29,379	\$537	1.9%
Undergraduate (non-resident)	\$35,112	\$35,779	\$36,316	\$537	1.5%
MANDATORY FEES					
Shared Infrastructure Technology Fee	\$350	\$400	\$400	\$0	0.0%
Student Activities	\$248	\$248	\$248	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (resident)	\$16,389	\$16,439	\$16,439	\$0	0.0%
Undergraduate (regional)	\$28,773	\$29,490	\$30,027	\$537	1.8%
Undergraduate (non-resident)	\$35,710	\$36,427	\$36,964	\$537	1.5%
RESIDENTS ONLY					
Rent and Residential Telecommunications	\$7,280	\$7,462	\$7,611	\$149	2.0%
Board	\$5,724	\$5,867	\$5,984	\$117	2.0%
TOTAL RENT, TELCOM, BOARD	\$13,004	\$13,329	\$13,595	\$266	2.0%
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (resident)	\$29,393	\$29,768	\$30,034	\$266	0.9%
Undergraduate (regional)	\$41,777	\$42,819	\$43,622	\$803	1.9%
Undergraduate (non-resident)	\$48,714	\$49,756	\$50,559	\$803	1.6%
<u>GRADUATE</u>					
TUITION					
Graduate (resident)	\$14,778	\$14,778	\$14,778	\$0	0.0%
Graduate (regional)	\$27,075	\$27,723	\$28,219	\$496	1.8%
Graduate (non-resident)	\$32,392	\$33,040	\$33,536	\$496	1.5%
MANDATORY FEES					
Graduate Service Fee	\$1,270	\$1,270	\$1,270	\$0	0.0%
Graduate Health Fee	\$787	\$803	\$815	\$12	1.5%
Graduate Student Senate Fee	\$138	\$148	\$151.70	\$3.70	2.5%
TOTAL MANDATORY FEES & TUITION					
Graduate (resident)	\$16,973	\$16,999	\$17,015	\$16	0.1%
Graduate (regional)	\$29,270	\$29,944	\$30,456	\$512	1.7%
Graduate (non-resident)	\$34,587	\$35,261	\$35,773	\$512	1.5%

FY 2022 NON-MANDATORY FEES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
Commonwealth College Welcome Weekend Orientation (in AIA Fund)	\$90	\$90	\$90	\$0	0.0%
Campus Fee Fund :					
Continuing Ed Campus Fee / per credit	\$226	\$230	\$233	\$3	1.3%
Graduate Entering	\$507	\$507	\$507	\$0	0.0%
Undergraduate Senior Status	\$110	\$110	\$110	\$0	0.0%
Commonwealth College Fee (annual)	\$600	\$600	\$600	\$0	0.0%
New Student Enrollment Fee:					
Undergraduate	\$485	\$485	\$485	\$0	0.0%
Undergraduate - Stockbridge	\$377	\$377	\$377	\$0	0.0%
Undergraduate - Transfer	\$385	\$385	\$385	\$0	0.0%
Career Services:					
Credentials Packet (Undergraduate)	\$2	\$2	N/A		
Credentials Packet (Graduate)	\$3	\$3	N/A		
Communication Network Services (formerly Telecommunications):					
Family Housing Tenants (per month)	\$30	\$30	\$30	\$0	0.0%
Summer Telephone Fee (per month)	\$30	\$30	\$30	\$0	0.0%
Summer CE Telephone Fee (per session)	\$30	\$30	\$30	\$0	0.0%
Computer Science Computing Facility:					
Computer Account for CE Courses (per semester)	\$45	\$45	\$45	\$0	0.0%
Domestic Exchange:					
Outgoing Application	\$230	\$230	\$230	\$0	0.0%
Incoming Orientation	\$150	\$150	\$150	\$0	0.0%
Post Conference Application	\$300	\$300	\$300	\$0	0.0%
Engineering Fee (annual)					
Undergraduate:					
12+ Credits	\$830	\$830	\$830	\$0	0.0%
6-11 credits	\$570	\$570	\$570	\$0	0.0%
1-5 Credits	\$310	\$310	\$310	\$0	0.0%
Graduate:					
5+ Credits	\$830	\$830	\$830	\$0	0.0%
1-4 Credits	\$440	\$440	\$440	\$0	0.0%
Graduate Registrar Fees:					
Continuous Enrollment Fee (was Program Fee)	\$275	\$285	\$285	\$0	0.0%
Readmission Fee	\$125	\$125	\$125	\$0	0.0%
Doctoral Hoods	\$65	\$75	\$75	\$0	0.0%
Graduate Student Senate					
Graduate Student Senate Fee (Continuous Enrollment Students)	\$69	\$74	\$75.85	\$1.85	2.5%
Humanities & Fine Arts Course Fees					
Music Studio Lessons Course Fee: Majors (PER COURSE)	\$425	\$425	\$425	\$0	0.0%
International Programs:					
Registration Fee (UMass & Non-UMass programs) / semester	\$875	\$895	\$910	\$15	1.7%
Application Fee	\$50	\$50	\$50	\$0	0.0%
Range of Exchanges (annual)	\$100-\$32,000	\$100-\$32,000	\$100-\$32,000	\$0	0.0%
American Culture & Language Program Fee	\$95	\$95	\$95	\$0	0.0%
American Culture & Language Program Fee (incl. TOEFL Test)	\$95	\$95	\$95	\$0	0.0%
Trip & Excursion Fee for International Students	\$5 - \$100	\$5 - \$100	\$5 - \$100	\$0	0.0%
Student Orientation Fee - Fall	\$75	\$75	\$75	\$0	0.0%

FY 2022 NON-MANDATORY FEES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
Student Orientation Fee - Spring	\$50	\$50	\$50	\$0	0.0%
Student Orientation Fee with Optional Room & Board	\$200	\$200	\$200	\$0	0.0%
Special Programs Fee	\$100	\$100	\$100	\$0	0.0%
Summer Registration Fee	\$365	\$375	\$380	\$5	1.3%
Student Services Fee (per semester) *	\$200	\$200	\$200	\$0	0.0%
Incoming Study Abroad Fee		\$0	\$910	New Fee	N/A
Isenberg School of Management Fee (annual)					
Undergraduate					
12+ Credits	\$1,000	\$1,000	\$1,000	\$0	0.0%
6-11 credits	\$690	\$690	\$690	\$0	0.0%
1-5 Credits	\$375	\$375	\$375	\$0	0.0%
College of Information and Computer Science Fee (annual)					
Undergraduate					
12+ Credits	\$850	\$850	\$850	\$0	0.0%
6-11 credits	\$580	\$580	\$580	\$0	0.0%
1-5 Credits	\$320	\$320	\$320	\$0	0.0%
Lab Fees					
Undergraduate Course Lab Fee	\$95	\$95	\$95	\$0	0.0%
Registrar Services					
Credit by Exam Fee	\$100	\$100	\$100	\$0	0.0%
Readmission Fee	\$60	\$60	\$60	\$0	0.0%
College of Nursing Undergraduate Course Fee (per credit) (Old Fee)	\$75	\$75	\$75	\$0	0.0%
Note: Nursing students to transition from old per course fee to new per semester fee beginning with entering freshman class.					
College of Nursing Undergraduate Fee (per Semester) (New Fee)	\$0	\$0	\$1,000	New Fee	N/A
Student Health					
BASICS I (first offense)	\$100	\$100	\$100	\$0	0.0%
BASICS I I (second offense) and BASICS III	\$175	\$175	\$175	\$0	0.0%
Student Health Benefit Plan					
Undergraduate Student Per Semester Plan (6 months)	\$843	\$843	TBD		
Graduate Student Per Semester Plan (6 months)	\$1,480	\$1,480	TBD		
Family Per Semester Plan (6 months)	\$3,000	\$3,000	TBD		
UCard					
U Card Replacement (Lost/Stolen)	\$30	\$30	\$30	\$0	0.0%
U Card Replacement (Damaged)	\$15	\$15	\$15	\$0	0.0%
IDS (Interdisciplinary Studies) Fees: (formerly UWW)					
Enrollment Fee	\$75	\$75	\$85	\$10	13.3%
Advising Fee	\$150	\$150	\$150	\$0	0.0%
Prior Learning Fee 1 (1-15 credits)			\$900	New Fee	N/A
Prior Learning Fee 2 (up to 30 credits)			\$1,600	New Fee	N/A
Prior Learning Fee (1-30 credits)	\$800	\$800	N/A		
Prior Learning (16-18 Credits)	\$1,100	\$1,100	N/A		
Prior Learning (19-21 Credits)	\$1,400	\$1,400	N/A		
Prior Learning (22-25 Credits)	\$1,700	\$1,700	N/A		
Prior Learning (26-29 Credits)	\$2,000	\$2,000	N/A		
Prior Learning (30+ Credits)	\$2,200	\$2,200	N/A		
Special Transcript Fee	\$75	\$75	\$405	\$330	440.0%

FY 2022 NON-MANDATORY FEES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
Vet Tech Program Majors Fee (annual)	\$500	\$500	\$0	(\$500)	-100.0%
Vet Tech Lab Fee (per course)	\$0	\$0	\$95	\$95	
Vet Tech Senior Seminar Registration Fee	\$51	\$51	\$51	\$0	0.0%

**Charged to degree seeking international students who are holders of F and J visas issued by the International Programs Office*

Note: MASSPIRG fee may be assessed based on student referendum as governed by MGL c.15A, sec.29; not subject to Board or President's approval

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
Auxiliary Services					
Basic Plan (224 meals per semester/annual)	\$5,724	\$5,867	\$5,984	\$117	2.0%
DC Unlimited Plan, no Dining \$, no Guest (annual rate)	\$5,824	\$5,970	\$6,090	\$120	2.0%
Unlimited 250 Plan (annual rate)	\$6,318	\$6,476	\$6,606	\$130	2.0%
Platinum Plan (200 meals per semester)/annual	\$5,586	\$5,726	\$5,840	\$114	2.0%
Gold Plan (100 meals per semester) / annual	\$3,042	\$3,118	\$3,180	\$62	2.0%
Commuter Plan (65 meals per semester) / annual	\$1,764	\$1,808	\$1,844	\$36	2.0%
Commuter Plan (155 meals per semester) / annual	\$3,862	\$3,959	\$4,038	\$79	2.0%
Commuter On the Go (\$800 Dining \$ plus 5 Bonus DC meals per semester)/annual	\$1,600	\$1,600	\$1,600	\$0	0.0%
Unlimited 500 (unlimited DC access, \$500 dining dollars & 15 guest meals/semester)	\$6,734	\$6,902	\$7,040	\$138	2.0%
Summer/Winter YCMP (20 meals) *	\$220	\$225	\$225	\$0	0.0%
Kosher Surcharge	\$400	\$400	\$400	\$0	0.0%
Meal Plan Change Administrative Fee	\$250	\$250	\$250	\$0	0.0%
Early Arrival Meal Plan	\$55	\$55	\$55	\$0	0.0%
Continuing Education					
Recording Fee, CEU Credits	\$30	\$30	\$30	\$0	0.0%
Readmission Fee	\$60	\$60	\$60	\$0	0.0%
Credit/Recording Fee	\$100	\$100	\$100	\$0	0.0%
Registration (credit)	\$47	\$47	\$50	\$3	6.4%
Registration (non-credit)	\$25	\$25	\$30	\$5	20.0%
Entering Fee (CPE matriculated UG students)	\$135	\$135	\$135	\$0	0.0%
Matriculating Student On-Site (per credit)					
Undergraduate In-State	\$414	\$445	\$482	\$37	8.3%
Undergraduate Out-of-State	\$733	\$788	\$788	\$0	0.0%
Graduate In-State	\$488	\$525	\$569	\$44	8.4%
Graduate Out-of-State	\$836	\$899	\$899	\$0	0.0%
Non-Matriculating Student On-Site (per credit)					
Undergraduate	\$414	\$445	\$482	\$37	8.3%
Graduate	\$488	\$525	\$569	\$44	8.4%
On-Line (per credit)					
Undergraduate	\$414	\$445	\$482	\$37	8.3%
Graduate	\$488	\$525	\$569	\$44	8.4%
Off Campus Special Programs (per credit) **	\$100-\$1,900	\$100-\$1,900	\$100-\$1,900	\$0	0.0%
Non-Matriculated Students Transcript Fee ****	\$6	\$6	\$6	\$0	0.0%
Accelerated Bachelor's Intent to Enroll	\$500	\$500	\$500	\$0	0.0%
Thesis, Dissertation, Special Programs (per credit)	\$195	\$195	\$195	\$0	0.0%
Late Course Add Fee	\$60	\$60	\$60	\$0	0.0%
Parking					
All Students					
Green Lot	\$371	\$383	\$383	\$0	0.0%
Purple Lot	\$333	\$343	\$343	\$0	0.0%
Yellow Lot	\$270	\$279	\$279	\$0	0.0%
Employees and GEO					
Red Lot (Employee only)	\$142-\$570	\$151-\$628	\$151-\$628	\$0	0.0%
Blue Lot	\$101-\$485	\$107-\$535	\$107-\$535	\$0	0.0%
Green Lot	\$75-\$289	\$80-\$318	\$80-\$318	\$0	0.0%
Purple Lot	\$69-\$265	\$73-\$292	\$73-\$292	\$0	0.0%
Yellow Lot	\$50-\$87	\$53-\$94	\$53-\$94	\$0	0.0%
Other Permit Fees					
Portable Permits	\$12	\$13	\$13	\$0	0.0%
Residence Halls & Family Housing:					
Family Housing (rents are per month)					

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
1 Bedroom	\$890	\$912	\$930	\$18	2.0%
1 Bedroom Handicapped	\$890	\$912	\$930	\$18	2.0%
1 Bedroom IPO (furnished)	\$920	\$943	N/A		
1 Bedroom Handicapped (tenant not handicapped)	\$910	\$933	\$952	\$19	2.0%
2 Bedroom	\$1,040	\$1,066	\$1,087	\$21	2.0%
2 Bedroom Handicapped	\$1,040	\$1,066	\$1,087	\$21	2.0%
2 Bedroom Handicapped (tenant not handicapped)	\$1,060	\$1,087	\$1,109	\$22	2.0%
<u>Residence Halls</u>					
Standard Shared Room	\$7,001	\$7,176	\$7,320	\$144	2.0%
Single Room (includes Sylvan Double as Single Room)	\$9,311	\$9,544	\$9,735	\$191	2.0%
Sylvan Suite Singles	\$8,465	\$8,677	\$8,850	\$173	2.0%
Sylvan Suites Shared	\$6,365	\$6,524	\$6,655	\$131	2.0%
North Apartments Single Room (9 months)	\$12,834	\$13,155	\$13,418	\$263	2.0%
Commonwealth Honors College Residential Complex					
Single Apartments	\$12,834	\$13,155	\$13,418	\$263	2.0%
Single Suites	\$11,173	\$11,452	\$11,683	\$231	2.0%
Shared Apartments	\$9,650	\$9,891	\$10,089	\$198	2.0%
Single Rooms	\$10,157	\$10,411	\$10,620	\$209	2.0%
Suite Shared	\$8,401	\$8,611	\$8,784	\$173	2.0%
Shared Rooms	\$7,637	\$7,828	\$7,985	\$157	2.0%
<u>Lincoln Apartments</u>					
Studio, Furnished (9 months)	\$10,140	\$10,394	N/A		
1 Bedroom, Furnished (9 months)	\$11,752	\$12,046	N/A		
2 Bedrooms, Furnished (9 months)	\$9,404	\$9,639	N/A		
Residential Telecommunications Fee	\$279	\$286	\$291	\$5	1.7%
Cancellation Fee	\$100-\$500	\$300-\$600	\$300-\$600	\$0	0.0%
Break Housing (add to rent)	\$600	\$600	\$600	\$0	0.0%
<u>Daily and Summer Student Fees / Per Day</u>					
Shared	\$33	\$34	\$35	\$1	2.9%
Single Occupancy (including Sylvan Double as Single)	\$44	\$45	\$46	\$1	2.2%
Early Arrival Fee (per/diem)	\$60	\$60	\$60	\$0	0.0%
Residence Halls Surcharges:					
Expanded Single	\$400	\$400	\$400	\$0	0.0%
Double used for Single	\$1,600	\$1,600	\$1,600	\$0	0.0%
Triple used for Double	\$800	\$800	\$800	\$0	0.0%
Triple used for Single	\$1,600	\$1,600	\$1,600	\$0	0.0%
Quad used for Triple	\$800	\$800	\$800	\$0	0.0%
Quad used for Double	\$900	\$900	\$900	\$0	0.0%
Quad used for Single	\$1,600	\$1,600	\$1,600	\$0	0.0%
Economy Triple used for Double	\$0	\$500	\$500	\$0	0.0%
Economy Triple used for Single	\$0	\$1,600	\$1,600	\$0	0.0%
Admin Check-In Fee	\$25	\$25	\$25	\$0	0.0%
Improper Room Checkout Fees:					
During Academic Year, not during Opening Period	\$150	\$150	\$150	\$0	0.0%
During Early Arrival time period, Winter Session	\$175	\$175	\$175	\$0	0.0%
During Opening day and thereafter, Spring	\$250	\$250	\$250	\$0	0.0%
During Opening Week and thereafter, Spring	\$400	\$400	\$400	\$0	0.0%
Unauthorized Occupancy of Residence Hall Space	\$150	\$150	\$150	\$0	0.0%

* Summer Fees cross fiscal years: for example, FY20 fees are charged May through August 2020

** A listing of the Off-Campus Special Continuing Education Programs with their respective per credit charges is available

**** Until FY2016 CPE students who matriculated prior to fall 2012 paid the non-matriculated transcript fee; beginning FY17 there will no longer be a charge to CPE matriculated students for a transcript.

FY 2022 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
Application Fee:					
Undergraduate	\$80	\$85	\$85	\$0	0.0%
Graduate Instate	\$80	\$80	\$85	\$5	6.3%
Graduate Out-of-State	\$80	\$80	\$85	\$5	6.3%
Graduate International	\$80	\$80	\$85	\$5	6.3%
Bursar Administrative Fees:					
Student Bill Late Payment Fee	5% of Balance to maximum of \$100	5% of Balance to maximum of \$100	5% of Balance to maximum of \$100	\$0	0.0%
Returned Check Fee	\$25	\$25	\$25	\$0	0.0%
Engineering Computer Services:					
Undergraduate & Graduate Computer Fee (Summer)	\$10	\$10	\$10	\$0	0.0%
Student Activities:					
Craft Center	\$7 - \$25	\$7 - \$25	\$7 - \$25	\$0	0.0%
Union Video Center	\$5 - \$40	\$5 - \$40	\$5 - \$40	\$0	0.0%
Student Legal Services Office:					
Stockbridge Student Pro-Rated Activities Fee	\$102	\$102	\$102	\$0	0.0%
Simple Wills & Trusts	\$50-\$200	\$50-\$200	\$50-\$200	\$0	0.0%
Contracts	\$25-\$200	\$25-\$200	\$25-\$200	\$0	0.0%
Settlement Demand Letters	\$25-\$200	\$25-\$200	\$25-\$200	\$0	0.0%
Durable Power of Attorney	\$25-\$50	\$25-\$50	\$25-\$50	\$0	0.0%
Health Care Proxy	\$25	\$25	\$25	\$0	0.0%
Power of Attorney	\$25-\$50	\$25-\$50	\$25-\$50	\$0	0.0%
Mediation & Arbitration (per hour)	\$25-\$50	\$25-\$50	\$25-\$50	\$0	0.0%
Referral Fee (\$150 min.)	15%-33.3%	15%-33.3%	15%-33.3%	\$0	0.0%
Litigation Services Flat Fee	\$100 - \$1,500	\$100 - \$1,500	\$100 - \$1,500	\$0	0.0%
Contingency Fee Litigation	25% - 33.3%	25% - 33.3%	25% - 33.3%	\$0	0.0%
Pro Se Court Pleadings & Documents	\$50 - \$750	\$50 - \$750	\$50 - \$750	\$0	0.0%
Separation Agreement	\$50 - \$750	\$50 - \$750	\$50 - \$750	\$0	0.0%
Student Health:					
Summer Basic CE (6/1 - 7/31)	\$491	\$501	\$509	\$8	1.6%
Summer Basic CE - per Week	\$62	\$63	\$64	\$1	1.6%
Family Fall (8/1 - 1/31)	\$1,302	\$1,328	\$1,348	\$20	1.5%
Family Spring (2/1 - 7/31)	\$1,302	\$1,328	\$1,348	\$20	1.5%
Graduate < 5 Credits per semester	\$394	\$401	\$407	\$6	1.5%
GEO < 5 Credits per semester	\$394	\$401	\$407	\$6	1.5%
CE > 3 credits / UWW / Program Fee per semester	\$394	\$401	\$407	\$6	1.5%

UNIVERSITY OF MASSACHUSETTS, BOSTON

STUDENT TUITION & FEE SCHEDULES

FY 2022 TUITION & MANDATORY FEES

FY 2022 NON-MANDATORY FEES

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2022 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

**FY 2022 TUITION & MANDATORY FEES
SUMMARY TABLE**

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (resident)	\$14,187	\$14,187	\$14,187	\$0	0.0%
Undergraduate New England Regional ¹	\$27,247	\$24,827	\$24,827	\$0	0.0%
Undergraduate (non-resident)	\$34,649	\$34,649	\$34,649	\$0	0.0%
MANDATORY FEES					
Student Activities (Undergraduate)	\$116	\$110	\$130	\$20	18.2%
Technology	\$350	\$400	\$400	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (resident)	\$14,653	\$14,697	\$14,717	\$20	0.1%
Undergraduate (NER)	\$27,713	\$25,337	\$25,357	\$20	0.1%
Undergraduate (non-resident)	\$35,115	\$35,159	\$35,179	\$20	0.1%
RESIDENTS ONLY					
Standard Room ²	\$9,720	\$10,024	\$10,525	\$501	5.0%
Standard Board (meal plan)	\$5,550	\$5,717	\$5,830	\$114	2.0%
Subtotal	\$15,270	\$15,741	\$16,355		
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (resident)	\$29,923	\$30,438	\$31,072	\$635	2.1%
Undergraduate (NER)	\$42,983	\$41,078	\$41,712	\$635	1.5%
Undergraduate (non-resident)	\$50,385	\$50,900	\$51,534	\$635	1.2%
<u>GRADUATE</u>					
TUITION					
Graduate (resident)	\$18,433	\$18,433	\$18,433	\$0	0.0%
Graduate New England Regional ¹	\$29,931	\$32,258	\$32,258	\$0	0.0%
Graduate (non-resident)	\$35,980	\$35,980	\$35,980	\$0	0.0%
MANDATORY FEES					
Student Activities (Graduate)	\$105	\$105	\$105	\$0	0.0%
Technology	\$350	\$400	\$400	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Graduate (resident)	\$18,888	\$18,938	\$18,938	\$0	0.0%
Graduate (NER)	\$30,386	\$32,763	\$32,763	\$0	0.0%
Graduate (non-resident)	\$36,435	\$36,485	\$36,485	\$0	0.0%

¹ Both Undergraduate (non-resident) and Graduate (non-resident) tuition charges for New England Regional are set at 175% of the respective in-state rates pre BHE guidelines. The discount is applied to the non-resident rate in the form of a waiver and as a percentage of the out of state rate.

²Not BOT-approved. Included for total cost calculation purposes only.

FY 2022 NON-MANDATORY FEES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
Program Fees					
Management (except online)					
Undergraduate per Semester (Fall / Spring)	\$468	\$468	\$468	\$0	0%
Undergraduate (Winter / Summer)	\$234	\$234	\$234	\$0	0%
Graduate per Semester (Fall / Spring)	\$950	\$950	\$950	\$0	0%
Graduate (Winter / Summer)	\$475	\$475	\$475	\$0	0%
Nursing (except online)					
Undergraduate Students (Fall / Spring)	\$500	\$500	\$500	\$0	0%
Undergraduate Program (Winter / Summer)	\$250	\$250	\$250	\$0	0%
Graduate Students (Fall / Spring)	\$700	\$700	\$700	\$0	0%
Graduate Program (Winter / Summer)	\$350	\$350	\$350	\$0	0%
E&HS					
Undergraduate Students (Fall / Spring)	\$400	\$400	\$400	\$0	0%
Undergraduate Program (Winter / Summer)	\$200	\$200	\$200	\$0	0%
Graduate Students (Fall / Spring)	\$700	\$700	\$700	\$0	0%
Graduate Program (Winter / Summer)	\$350	\$350	\$350	\$0	0%
CLA Infant Parent Mental Health Graduate Certificate					
Program fee	\$9,500	\$11,000	\$11,000	\$0	0%
Application fee	\$75	\$100	\$100	\$0	0%
Boston Advanced Academic Consortium	\$500	\$500	\$500	\$0	0%
Laboratory Fees					
Anthropology	\$61	\$61	\$61	\$0	0%
Art	\$112-\$168	\$112-\$168	\$112-\$168	N/A	N/A
Biology	\$100-\$140	\$100-\$140	\$100-\$140	N/A	N/A
Chemistry	\$140	\$0-\$140	\$0-\$140	N/A	N/A
Performing Arts	\$5-\$35	\$5-\$35	\$5-\$300	N/A	N/A
Computer Science	\$22-\$55	\$22-\$55	\$22-\$55	N/A	N/A
School for the Environment	\$50-\$300	\$50-\$300	\$50-\$150	N/A	N/A
Exercise & Health Sciences	\$55-\$67	\$55-\$67	55-67	N/A	N/A
College of Ed & Human Development	\$22-\$140	\$23-\$144	\$53-\$169	N/A	N/A
Modern Language	\$26-\$55	\$26-\$55	\$26-\$55	N/A	N/A
Latin American & Liberian Studies	\$26-\$55	\$26-\$55	\$26-\$55		
Mathematics	\$20-\$55	\$20-\$55	\$12-\$55	\$12	N/A
Nursing	\$34-\$348	\$34-\$348	\$34-\$348	N/A	N/A
Physics	\$33-\$90	\$33-\$90	\$33-\$90	N/A	N/A
Engineering	\$60-\$120	\$60-\$120	\$60-\$120	N/A	N/A
Psychology	\$25-\$72	\$25-\$72	\$25-\$72	N/A	N/A
Administrative Fees					
Admissions Processing - Undergraduate International	\$100	\$100	\$100	\$0	0%
Admissions Processing - Undergraduate Non-Resident	\$60	\$60	\$60	\$0	0%
Admissions Processing - Undergraduate Resident	\$60	\$60	\$60	\$0	0%
Admissions Processing - Undergrad Late Registration Fee	\$100	\$100	\$100	\$0	0%
Admissions Processing - Undergrad Deposit Fee	\$200	\$200	\$200	\$0	0%
Admissions Processing - Undergrad Non Degree	\$60	\$60	\$60	\$0	0%
Admissions Processing - Undergrad Summer I,II	\$100	\$100	\$100	\$0	0%
Admissions Processing - Graduate International	\$100	\$75	\$75	\$0	0%
Admissions Processing - Graduate Non-Resident	\$60	\$75	\$75	\$0	0%
Admissions Processing - Graduate Resident	\$60	\$75	\$75	\$0	0%
Admissions Processing - Graduate Deposit Fee	\$250	\$250	\$250	\$0	0%
Graduate Studies Program Fee	\$450	\$450	\$450	\$0	0%
E-Portfolio Annual Fee - CEHD (MA)	\$65	\$50	\$50	\$0	0%
E-Portfolio One Time Fee - CEHD (PHD)	\$65	\$140	\$140	\$0	0%
E-Portfolio Fee - GISD (Vision Studies)	\$132	\$139	\$139	\$0	0%
E-Portfolio Fee - GISD (Rehabilitation Counseling)	\$132	\$197	\$197	\$0	0%
ABSN Technology & Book Fee	\$1,400	\$1,400	\$1,750	\$350	25%
CNHS New Student Background Check Fee	\$400	\$400	\$400	\$0	0%
Late Payment	\$50	\$50	\$70	\$20	40%
University Payment Plan Fee	\$47	\$47	\$47	\$0	0%
Flywire payment plan fee	\$30	\$30	\$30	\$0	0%
Returned Check Fee (1)	\$28	\$30	\$30	\$0	0%
Graduation Processing Fee	\$200	\$200	\$200	\$0	0%

FY 2022 NON-MANDATORY FEES

	FY2020	FY2021	FY2022	\$ Change	% Change
	Actual	Actual	Proposed	FY21-FY22	FY21-FY22
Non-Matriculated Student Transcript Fee	\$10	\$10	\$10	\$0	0%
Reactivation Fee	\$60	\$60	\$60	\$0	0%
ID Card, New Student Fee (Matriculated, Non-credit, Online)	\$75	\$75	\$75	\$0	0%
ID Card, Returning Student Fee (Matriculated, Non-credit, Online)	\$12	\$12	\$12	\$0	0%
ID Card, Replacement	\$25	\$25	\$25	\$0	0%
Replacement ISC (one card)	\$25	\$25	\$25	\$0	0%
Mass Media	\$17	\$17	\$17	\$0	0%
MASSPIRG (2)	\$9	\$9	\$9	\$0	0%
New Student Fee	\$533	\$533	\$533	\$0	0%
Orientation Fee	\$178	\$178	\$178	\$0	0%
Student Renewable Energy Fee	\$7	\$7	\$7	\$0	0%
Replacement Diploma Fees					
University Diploma electronic copy	\$15	\$15	\$0	(\$15)	-100%
University Diploma standard order (6-8 weeks delivery)	\$40	\$40	\$45	\$5	13%
University Diploma rush order (CeDiploma or paper, 10-14 business days)	\$60	\$60	\$60	\$0	0%
International Fees					
Study Abroad Fee	\$100	\$100	\$100	\$0	0%
International Student Fee	\$330	\$330	\$330	\$0	0%
Global Programs Support Fees					
Education Abroad Engagement Fee	\$20	\$20	\$20	\$0	0%
F-1 CPT/OPT Application Fee	\$0	\$125	\$125	\$0	0%
Health Fees					
Student Health Insurance Plan (SHIP) (3)	\$2,553	\$2,772	TBD	N/A	N/A

Notes:

- 1 Mandatory charge for anticipated degree recipients only
- 2 MASSPIRG fee may be assessed based on student referendum as governed by MGL c.15A, sec.29; not subject to Board or President's approval
- 3 Mandatory unless student has coverage. Proposed rate is negotiated at the system-level based on campus criteria and actuarial experience.

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
Program Fees					
Contintuing Education					
Matriculated					
Undergraduate					
Resident (Fall/Spring)	\$605	\$605	\$605	\$0	0%
Non-resident (Fall/Spring)	\$1,458	\$1,458	\$1,458	\$0	0%
Resident (Summer/Winter) *	\$470	\$470	\$470	\$0	0%
Non-resident (Summer/Winter)*	\$850	\$850	\$850	\$0	0%
Graduate					
Resident (Fall/Spring)	\$783	\$783	\$783	\$0	0%
Non-resident (Fall/Spring)	\$1,515	\$1,515	\$1,515	\$0	0%
Resident (Summer/Winter)*	\$625	\$625	\$625	\$0	0%
Non-resident (Summer/Winter)*	\$950	\$950	\$950	\$0	0%
Non-matriculated					
Undergraduate (Fall/Spring)	\$410	\$410	\$410	\$0	0%
Undergraduate (Winter/Summer)	\$350	\$350	\$350	\$0	0%
Graduate	\$575	\$575	\$575	\$0	0%
Continuing Education - Online & Off Campus (except online programs)					
Undergraduate Matriculated*	\$410	\$410	\$410	\$0	0%
Undergraduate Non-matriculated (Fall/Spring)	\$410	\$410	\$410	\$0	0%
Undergraduate Non- Matriculated(Winter/Summer)	\$350	\$350	\$350	\$0	0%
Graduate*	\$575	\$575	\$575	\$0	0%
Continuing Education - On-line Programs					
Accelerated Nursing Bachelor of Science (online)	\$577	\$577	\$577	\$0	0%
Nursing RN to Bachelor of Science (online)	\$370	\$370	\$370	\$0	0%
Shorelight American Collegiate (online) per credit	\$850	\$850	\$850	\$0	0%
MBA - Online and One-Price, per credit			\$695		
Executive MBA, MSA, MFA Program					
Professional graduate program fee	\$900	\$900	\$0	(\$900)	-100%
Continuing Education - non credit program	\$0 - \$6,750	\$0 - \$12,000	\$0 - \$12,000	N/A	N/A
Continuing Education - professional development	\$0 - \$6,750	\$0 - \$12,000	\$0 - \$12,000	N/A	N/A
Continuing Education - Fees					
Summer Services Fees per credit (non-refundable)	\$10	\$10	\$10	\$0	0%
Continuing Education - Dual Enrollment					
On-campus/UMB staff, per credit (12 student minimum)		\$264	\$264	\$0	0%
Off-campus/UMB staff per credit (12 student minimum)		\$214	\$214	\$0	0%
Off-campus/Local staff per credit (12 student minimum)		\$61	\$61	\$0	0%
Pathways Program per credit			\$269	\$269	N/A
Other Fees					
Parking, Per day (Bayside)	\$9	\$9	\$9	\$0	0%
Parking, Per day (Garage and Lot D)	\$15	\$15	\$15	\$0	0%
Parking, Per Evening after 4pm (West Garage Only))	\$10	\$10	\$10	\$0	0%
Parking, Monthly pass (Bayside, Faculty/Staff)	\$112 - \$160	\$112 - \$160	\$112 - \$160	N/A	N/A
Parking, Monthly pass (Bayside, new Student)	\$126	\$126	\$126	\$0	0%
Parking, Monthly pass (Bayside, cont Student)	\$115	\$115	\$115	\$0	0%
Parking, Monthly pass (Garage and Lot D, Faculty/Staff)	\$122 - \$240	\$122 - \$240	\$122 - \$240	N/A	N/A
Parking, Monthly pass (Garage and Lot D, Faculty/Staff) reserved space	\$300	\$300	\$300	\$0	0%
Parking, Monthly pass (Garage and Lot D, comm Student)	\$138	\$138	\$138	\$0	0%
Parking, Monthly pass (Garage and Lot D, res Student) reserved space	\$315	\$315	\$300	(\$15)	-5%
Parking, Semester pass (Bayside, Faculty/Staff)	\$576	\$576	\$504	(\$72)	-13%
Parking, Semester pass (Bayside, new Students)	\$504	\$504	\$504	\$0	0%
Parking, Semester pass (Bayside, cont Students)	\$460	\$460	\$460	\$0	0%
Parking, Semester pass (Garage and Lot D, Faculty/Staff)	\$550	\$550	\$550	\$0	0%
Parking, Semester pass (Garage and Lot D, comm Student)	\$550	\$550	\$550	\$0	0%
Parking, Semester pass (Garage and Lot D, res Student)	\$1,200	\$1,200	\$1,200	\$0	0%
Parking, 30 park pass Semester, (Bayside; Student/Faculty Only)	\$270	\$270	\$270	\$0	0%
Parking, 15 park pass Semester, (Garages and Lot D; Student/Faculty Only)	\$150	\$150	\$150	\$0	0%
Parking, 30 park pass Semester, (Garages and Lot D; Student/Faculty Only)	\$360	\$360	\$360	\$0	0%
Electric Vehicle Charging pKWITH			\$0.22		

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
Single (community bath), Academic	\$11,224	\$11,560	\$12,136	\$576	5%
Single (private bath), Academic	\$12,488	\$12,864	\$13,504	\$640	5%
Large single (private bath), Academic	\$12,728	\$13,104	\$13,760	\$656	5%
Double (community bath), Academic	\$9,720	\$10,024	\$10,528	\$504	5%
Large Double Community Bath	\$9,904	\$10,200	\$10,712	\$512	5%
Double (private bath), Academic	\$11,352	\$11,720	\$12,304	\$584	5%
Double (private bath), Large Double Private Bath	\$11,584	\$11,952	\$12,552	\$600	5%
Triple (private bath), Academic	\$9,232	\$9,512	\$9,992	\$480	5%
Quad (private bath), Academic	\$8,896	\$9,152	\$9,608	\$456	5%
Neighborhood A (25 meal block per year)	\$300	\$312	\$320	\$8	2%
Neighborhood B (50 meal block per year)	\$575	\$598	\$615	\$17	3%
Neighborhood C (100 meal block per year)		\$1,100	\$1,135	\$35	3%
Points Plan A (Harbor Plan - 100 Dining points +1 Bonus Swipe)		\$100	\$100	\$0	0%
Points Plan B (Beacons Plan - 175 Dining points +2 Bonus Swipe)		\$175	\$175	\$0	0%
Points Plan C (300 Dining points + 4 Bonus Swipe)	\$300	\$300	\$300	\$0	0%
Combo A - 25 Meal Block per year plus 100 dining points	\$390	\$390	\$400	\$10	3%
Combo B - 50 Meal Block per year plus 100 dining points	\$665	\$665	\$685	\$20	3%
Combo C - 100 Meal Block per year plus 300 Dining Points		\$1,350	\$1,390	\$40	3%
Residential Meal Plan A - 19 Meals/week plus 175 Dining Points	\$5,550	\$5,717	\$5,830	\$114	2%
Residential Meal Plan B - 14 Meals/week plus 750 Dining Points	\$5,550	\$5,717	\$5,830	\$114	2%

Notes:

* Summer 2021 fees temporarily reduced for one year, not a permanent reduction and not displayed here

FY 2022 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
Other Fees (Not Student Related)					
Athletics - Beacon Fitness Ctr Employees & Alumni - Annual	\$216	\$216	\$216	\$0	0%
Athletics - Beacon Fitness Center Community Adult - Annual	\$125	\$125	\$0	(\$125)	-100%
Athletics - Beacon Fitness Center Community Family - Annual	\$160	\$160	\$0	(\$160)	-100%
Athletics - Beacon Fitness Center Community Youth - Annual	\$30	\$30	\$0	(\$30)	-100%
Athletics - Beacon Fitness Center Community Personal Trainer - Hourly	\$40	\$40	\$40	\$0	0%
Athletics - Clark Athletic Center , Lobby - Hourly	\$100	\$100	\$100	\$0	0%
Athletics - Clark Athletic Center Gymnasium - Hourly	\$350	\$350	\$350	\$0	0%
Athletics - Clark Locker Rooms (case by case request) -/Hour /locker room	\$54	\$54	\$54	\$0	0%
Athletics - Clark Center , Dive Well only Lifeguard	\$60	\$60	\$0	(\$60)	-100%
Athletics - Ice Rink Rental - per hour	\$250	\$250	\$250	\$0	0%
Athletics - Swimming Pool Rental - Hourly (including Lifeguard)	\$125	\$125	\$0	(\$125)	-100%
Athletics - Softball Field Rental - Per game	\$275	\$275	\$275	\$0	0%
Athletics - 400-Meter Track, lacrosse/soccer field, per game/match	\$300	\$300	\$0	(\$300)	-100%
Athletics - Facility Staff Member	\$49	\$49	\$49	\$0	0%
Athletics - Additional Life Guard - per hour	\$18	\$18	\$0	(\$18)	-100%
Athletics - Additional Ice Rink Attendant - per hour	\$16	\$16	\$16	\$0	0%
Athletics - Student Employee - per hour	\$14	\$14	\$14	\$0	0%
Athletics - UMB Game Admission - Spectator over 12 yrs.	\$7	\$7	\$7	\$0	0%
Athletics - Monan Park Rentals - Main field per game	\$750	\$750	\$750	\$0	0%
Athletics - Monan Park Rentals - JV field per game	\$250	\$250	\$250	\$0	0%
Athletics - Monan Park Rentals - All day tournaments, 2-3 days	\$2,500 - \$5000	\$2,500 - \$5000	\$2,500 - \$5000	N/A	N/A
Athletics - Monan Park Rentals - Both fields per game	\$1,000	\$1,000	\$1,000	\$0	0%
Center for Collaborative Leadership - Workshop Fee	\$7,500	\$7,500	\$7,500	\$0	0%
Center for Collaborative Leadership - Luncheon Fee	\$100	\$100	\$100	\$0	0%
Center for Collaborative Leadership - Breakfast Fee	\$50	\$50	\$50	\$0	0%
Center for Collaborative Leadership - 2 Hour Programming	\$50	\$50	\$50	\$0	0%
Center for Collaborative Leadership - Half-day Programming for alumni	\$350	\$350	\$350	\$0	0%
Center for Collaborative Leadership - Full-day programming for alumni	\$750	\$750	\$750	\$0	0%
Distance Learning Ctr - Audio Visual Production Products (each)	\$5 - \$47	\$5 - \$47	\$5 - \$47	N/A	N/A
Distance Learning Ctr - Audio Visual Production Services (per hour)	\$12 - \$163	\$12 - \$163	\$12 - \$163	N/A	N/A
Joiner Center - Sale of Center Publications/Videos	\$12 - \$31	\$12 - \$31	\$12 - \$31	N/A	N/A
Joiner Center - Writer's Workshop Fee (one week/two weeks)	\$250 - \$500	\$250 - \$500	\$250 - \$500	N/A	N/A
Osher Lifelong Learning Institute (OLLI) (formerly LETS) - Annual Membership Fee	\$220	\$220	\$220	\$0	0%
Library - Overdue Fines	\$0.75 - \$30	\$0.75 - \$30	\$0.75 - \$30	N/A	N/A
Library - Book Replacement Fee	\$1.03 - \$1,030	\$1.03 - \$1,030	\$1.03 - \$1,030	N/A	N/A
Library - Book Replacement Processing Costs	\$30	\$30	\$30	\$0	0%
Library - 3 Hour Reserve Materials Late Fee	\$10 - \$150	\$10 - \$150	\$10 - \$150	N/A	N/A
Library - Interlibrary Loan - Overdue Fee	\$0.75 - \$30	\$0.75 - \$30	\$0.75 - \$30	\$0	0%
Library - Interlibrary Loan - Book Replacement Costs	\$1.03 - \$1,030	\$1.03 - \$1,030	\$1.03 - \$1,030	\$0	0%
Library - Interlibrary Loan - Book Replacement Processing Fee	\$30	\$30	\$30	\$0	0%
Library - Archive copying fees	\$15 - \$15	\$15 - \$15	\$15 - \$15	N/A	N/A
Library - University Archives copying Forrester Record	\$10	\$10	\$10	\$0	0%
Library - University Archives Holdings Scanning Per Item	\$25	\$25	\$25	\$0	0%
Library - Loaner Laptop late fee per hour maximum	\$15	\$15	\$15	\$0	0%
Library - Lost Loaner Laptop replacement fee	\$1,500	\$1,500	\$700	(\$800)	-53%
Library - Lost Loaner Laptop charger/adaptor replacement fee	\$150	\$150	\$25	(\$125)	-83%
Library - Lost one-week DVD loan replacement fee	\$250	\$250	\$250	\$0	0%
Library - Lost one-week DVD loan replacement processing fee	\$30	\$30	\$30	\$0	0%
Library - Lost one-week DVD loan overdue fee	\$30	\$30	\$30	\$0	0%
Library -Chromebook Loaner Replacement Fee		\$225	\$225	\$0	0%
Library -Chromebook Power cord Replacement Fee		\$20	\$20	\$0	0%
Nantucket Field Station - Gouin Village Apartments (non UMB users - per night, pe	\$40	\$60	\$60	\$0	0%
Nantucket Field Station - Gouin Village Apartments (UMB users - per night, per gu	\$25	\$30	\$30	\$0	0%
Nantucket Field Station - Gouin Village Apartments (Non Profit - per night)	\$30	\$45	\$45	\$0	0%
Nantucket Field Station - Bunkhouse (UMB users - per night)	\$25	\$30	\$30	\$0	0%
Nantucket Field Station - Bunkhouse (non UMB users - per night)	\$40	\$60	\$60	\$0	0%
Nantucket Field Station - Bunkhouse (Non Profit - per night)	\$30	\$45	\$45	\$0	0%
Nantucket Field Station - Bunkhouse (UMB users - both bunk rooms per night)	\$300	\$350	\$350	\$0	0%
Nantucket Field Station - Bunkhouse (non UMB users - both bunk rooms per night)	\$600	\$700	\$700	\$0	0%
Nantucket Field Station - Lab Bench Use Fee (non UMB users)	\$16	\$16	\$16	\$0	0%
Nantucket Field Station - Lab Bench Use Fee (UMB users)	\$8	\$8	\$8	\$0	0%
Nantucket Field Station - Lab User Fee (non UMB users)	\$100	\$100	\$100	\$0	0%
Nantucket Field Station - Lab User Fee (UMB users)	\$50	\$50	\$50	\$0	0%
Nantucket Field Station - Lab Teaching Fee (non UMB users)	\$50	\$50	\$50	\$0	0%
Nantucket Field Station - Lab Teaching Fee (UMB users)	\$25	\$25	\$25	\$0	0%
Nantucket Field Station - Lecture Room Meeting Fee (non UMB users per day)	\$150	\$150	\$150	\$0	0%
Nantucket Field Station - Lecture Room Meeting Fee (UMB users per day)	\$75	\$75	\$75	\$0	0%

FY 2022 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY21-FY22	% Change FY21-FY22
Other Fees (Not Student Related)					
Nantucket Field Station - Conference Room Meeting Fee (non UMB users per day)	\$45	\$45	\$45	\$0	0%
Nantucket Field Station - Conference Room Meeting Fee (UMB users per day)	\$23	\$23	\$23	\$0	0%
Nantucket Field Station - Vehicle Use Fee (per day)	\$20	\$40	\$40	\$0	0%
Campus Center Vendor Fee (charged to vendor)	\$133 - \$200	\$133 - \$200	\$133 - \$200	N/A	N/A
Student Affairs, Student Locker Rental - per semester	\$20	\$20	\$20	\$0	0%
Student Affairs, Student Locker Rental - per academic year	\$25	\$25	\$25	\$0	0%
Public Safety, Parking Fines - category 1	\$75 - \$150	\$75 - \$150	\$75 - \$150	N/A	N/A
Public Safety, Parking Fines - category 2	\$25 - \$35	\$25 - \$35	\$25 - \$35	N/A	N/A
Public Safety, Police details	\$50 - \$60	\$50 - \$60	\$50 - \$60	N/A	N/A
Event Services - All Room Rental Charges	\$155 - \$5,124	\$155 - \$5,124	\$155 - \$5,124	N/A	N/A
CNHS GoKids - monthly maintenance fee	\$141	\$141	\$141	\$0	0%
CNHS GoKids - personal trainer per/hr	\$76	\$76	\$76	\$0	0%
CNHS GoKids - group program per/hr	\$15	\$15	\$15	\$0	0%
CNHS-CPR trainer			\$75	\$75	N/A
Marine Ops - Small Boat Rental (per hour)	\$70	\$80	\$80	\$0	0%
Marine Ops - Dockage Fees (per foot)	\$2	\$2	\$2	\$0	0%
Marine Ops - Mooring Fees (per foot)	\$1	\$2	\$2	\$0	0%
Marine Ops - R/V John F. Looney Jr. (2 hours)	\$270	\$330	\$0	(\$330)	-100%
Marine Ops - M/V Columbia Point (2 hours)	\$760	\$780	\$780	\$0	0%
Marine Ops - Fox Point Pavillion Rental (per reservation)	\$65	\$70	\$70	\$0	0%
Marine Ops - Harbor Walk Bench	\$1,100	\$1,400	\$1,400	\$0	0%
Marine Ops - Harbor Cruises**	\$10	\$15	\$15	\$0	0%
Marine Ops - Island Adventures per hour	\$900	\$900	\$900	\$0	0%
Marine Ops - Science at Sea	\$1,400	\$1,400	\$1,400	\$0	0%
Marine Ops - Special Events	\$2,600	\$2,600	\$2,600	\$0	0%
WUMB, Membership plans	\$72 - \$1,000	\$72-\$1000	\$72-\$1000	\$0	0%
WUMB, Winter Acoustic Music Weekend - Member	\$450	\$500	\$500	\$0	0%
WUMB, Winter Acoustic Music Weekend - Non member	\$500	\$575	\$575	\$0	0%
WUMB, Winter Acoustic Music Weekend Priv bath - Member	\$525	\$575	\$575	\$0	0%
WUMB, Winter Acoustic Music Weekend Priv Bath - Non member	\$575	\$650	\$650	\$0	0%
WUMB, Inn, 3 floor and Cottages - Member	\$975	\$1,025	\$1,025	\$0	0%
WUMB, Inn 2 floor - Member	\$975	\$1,100	\$1,100	\$0	0%
WUMB, Inn 2 floor Double Bed, Tree Line Cabin- Member	\$1,075	\$1,125	\$1,125	\$0	0%
WUMB, College Row and Dock Road (2 person)	\$1,025	\$1,075	\$1,075	\$0	0%
WUMB, Inn, 3 floor and Cottages - Non member	\$975	\$1,100	\$1,100	\$0	0%
WUMB, Inn 2 floor - Non member	\$1,075	\$1,175	\$1,175	\$0	0%
WUMB, Inn 2 floor Double Bed, Tree Line Cabin- Non member	\$1,050	\$1,200	\$1,200	\$0	0%
WUMB, College Row and Dock Road (2 person) -Non-Member	\$1,025	\$1,150	\$1,150	\$0	0%
WUMB, Blues Music Weekend Shared Bath 2 persn Member	\$450	\$500	\$500	\$0	0%
WUMB, Blues Music Weekend Shared Bath 2 persn Non Member	\$500	\$575	\$575	\$0	0%
WUMB, Blues Music Weekend Priv Bath 2 person Member	\$525	\$575	\$575	\$0	0%
WUMB, Blues Music Weekend Priv Bath 2 person Non Member	\$575	\$625	\$625	\$0	0%
WUMB, Blues Music Weekend Priv single Member	\$825	\$825	\$825	\$0	0%
WUMB, Blues Music Weekend Priv single Non-Member	\$875	\$875	\$875	\$0	0%
WUMB, Singer & Song Weekend Shared Bath 2 persn Member	\$450	\$500	\$500	\$0	0%
WUMB, Singer & Song Weekend Shared Bath 2 persn Non Member	\$500	\$575	\$575	\$0	0%
WUMB, Singer & Song Music Weekend Priv Bath 2 person Member	\$525	\$575	\$575	\$0	0%
WUMB, Singer & Song Music Weekend Priv Bath 2 person Non Member	\$575	\$625	\$625	\$0	0%
WUMB, Virtual Sessions - Member			\$425	\$425	N/A
WUMB, Virtual Sessions - Non Member			\$500	\$500	N/A
SAMW 25th Anniversary Concert - Orchestra w/reception - Member		\$250	\$250	\$0	0%
SAMW 25th Anniversary Concert - Orchestra - Member		\$100	\$100	\$0	0%
SAMW 25th Anniversary Concert - Loge - Member		\$75	\$75	\$0	0%
SAMW 25th Anniversary Concert - Balcony-Member		\$60	\$60	\$0	0%
SAMW 25th Anniversary Concert - Balcony Rear-Member		\$40	\$40	\$0	0%
SAMW 25th Anniversary Concert - Orchestra w/reception - Non-Member		\$250	\$250	\$0	0%
SAMW 25th Anniversary Concert - Orchestra - Non-Member		\$125	\$125	\$0	0%
SAMW 25th Anniversary Concert - Loge - Non-Member		\$100	\$100	\$0	0%
SAMW 25th Anniversary Concert - Balcony-Non-Member		\$80	\$80	\$0	0%
SAMW 25th Anniversary Concert - Balcony Rear-Non-Member		\$60	\$60	\$0	0%

UNIVERSITY OF MASSACHUSETTS, DARTMOUTH

STUDENT TUITION & FEE SCHEDULES

FY 2022 TUITION & MANDATORY FEES

FY 2022 NON-MANDATORY FEES

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2022 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

FY 2022 TUITION & MANDATORY FEES
SUMMARY TABLE

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY2021-22	% Change FY2021-22
UNDERGRADUATE					
TUITION					
Undergraduate (resident)	\$13,833	\$13,833	\$13,833	\$0	0.0%
Undergraduate (non-resident)	\$29,578	\$29,578	\$29,578	\$0	0.0%
Undergraduate (regional & proximity)	\$18,981	\$18,981	\$18,981	\$0	0.0%
MANDATORY FEES					
Student Fee	\$175	\$175	\$175	\$0	0.0%
Technology Fee	\$350	\$400	\$400	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (resident)	\$14,358	\$14,408	\$14,408	\$0	0.0%
Undergraduate (non-resident)	\$30,103	\$30,153	\$30,153	\$0	0.0%
Undergraduate (regional & proximity)	\$19,506	\$19,556	\$19,556	\$0	0.0%
RESIDENTS ONLY					
Standard Room	\$9,613	\$10,094	\$10,397	\$303	3.0%
Standard Board	\$4,840	\$5,233	\$5,428	\$195	3.7%
Residential Telecommunications					
Subtotal	\$13,870	\$15,327	\$15,825	\$498	3.3%
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (resident)	\$28,228	\$29,735	\$30,233	\$498	1.7%
Undergraduate (non-resident)	\$43,973	\$45,480	\$45,978	\$498	1.1%
Undergraduate (regional & proximity)	\$33,376	\$34,882	\$35,381	\$498	1.4%
GRADUATE					
TUITION					
Graduate (resident)	\$16,390	\$16,390	\$16,390	\$0	0.0%
Graduate (non-resident)	\$29,578	\$29,578	\$29,578	\$0	0.0%
Graduate (regional & proximity)	\$20,885	\$20,885	\$20,885	\$0	0.0%
Graduate Law School (resident)	\$28,661	\$28,661	\$28,661	\$0	0.0%
Graduate Law School (non-resident)	\$37,569	\$37,569	\$37,569	\$0	0.0%
Graduate Law School (regional & proximity)	\$30,587	\$30,587	\$30,587	\$0	0.0%
MANDATORY FEES					
Student Fee	\$175	\$175	\$175	\$0	0.0%
Technology Fee	\$350	\$400	\$400	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Graduate (resident)	\$16,915	\$16,965	\$16,965	\$0	0.0%
Graduate (non-resident)	\$30,103	\$30,153	\$30,153	\$0	0.0%
Graduate (regional & proximity)	\$21,410	\$21,460	\$21,460	\$0	0.0%
Graduate Law School (resident)	\$29,186	\$29,236	\$29,236	\$0	0.0%
Graduate Law School (non-resident)	\$38,094	\$38,144	\$38,144	\$0	0.0%
Graduate Law School (regional & proximity)	\$31,112	\$31,162	\$31,162	\$0	0.0%
RESIDENTS ONLY					
Standard Room	\$9,613	\$10,094	\$10,397	\$303	3.0%
Standard Board	\$4,840	\$5,233	\$5,428	\$195	3.7%
Subtotal	\$13,870	\$15,327	\$15,825	\$498	3.3%
TOTAL TUITION AND ROOM & BOARD					
Graduate (resident)	\$30,785	\$32,291	\$32,790	\$498	1.5%
Graduate (non-resident)	\$43,973	\$45,480	\$45,978	\$498	1.1%
Graduate (regional & proximity)	\$35,280	\$36,787	\$37,285	\$498	1.4%

FY 2022 NON-MANDATORY FEES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY2021-22	% Change FY2021-22
Administrative Fees					
Orientation (Freshmen)	\$270	\$270	\$270	\$0	0.0%
Orientation International students	\$260	\$260	\$260	\$0	0.0%
Orientation Transfer Students	\$150	\$150	\$150	\$0	0.0%
Graduation Fee (final semester only)	\$185	\$185	\$195	\$10	5.4%
Predictive Testing & Prep Mat Fee (Formerly Nursing Exam Prep Fee)	\$401	\$445	\$466	\$21	4.7%
Nursing Exam Security Software Fee (BS Students Sophomore-Senior)	\$103	\$103	\$65	(\$38)	-36.9%
Nursing PCE Fee	\$123	\$123	\$113	(\$10)	-8.1%
Nursing Exam Test Proctoring Software Fee			\$170	\$170	0.0%
MLS Exam Test Proctoring Software Fee			\$103	\$103	0.0%
Readmit Fee (students withdrawals and reapply)	\$60	\$60	\$60	\$0	0.0%
Continuation of Thesis Fee	\$250	\$250	\$250	\$0	0.0%
Withdrawn on Exchange Fee foreign exchange programs	\$250	\$250	\$250	\$0	0.0%
Withdrawn on Exchange Fee Formal exchange programs	\$600	\$600	\$600	\$0	0.0%
Withdrawn on Exchange Fee-Co-op Exchange programs	\$105-\$305	\$105-\$305	\$105-\$305	\$0	0.0%
Health Fees					
Health Insurance	\$2,512	\$2,737	\$2,737	\$0	0.0%
International Fees					
International Student Fee	\$520	\$520	\$520	\$0	0.0%
Hessen Exchange Program Fee German Exchange Program	\$10,000-\$14,400	\$10,000-\$14,400	\$10,000-\$14,400	\$0	0.0%
Program Fees					
Arts & Sciences Major Fee (Humanities & Social Sciences)	\$426	\$426	\$426	\$0	0.0%
Arts & Sciences Major Fee (Sciences)	\$928	\$928	\$928	\$0	0.0%
Visual & Performing Arts Major Fee	\$902	\$902	\$902	\$0	0.0%
Visual & Performing Arts Art Histoty Major Fee		\$777	\$468	(\$309)	-39.8%
Visual & Performing Arts Practicum Fee	\$773	\$1,087	\$1,087	\$0	0.0%
Business Major Fee	\$482	\$496	\$496	\$0	0.0%
Nursing Major Fee	\$973	\$1,066	\$1,172	\$106	9.9%
Nursing Major Fee-MLS	\$928	\$1,021	\$1,123	\$102	10.0%
Engineering Major Fee	\$1,350	\$1,350	\$1,350	\$0	0.0%
SMAST Major Fee	\$818	\$843	\$843	\$0	0.0%
SEPPCE Major Fee (formerly paying Arts & Sciences Fee)	\$426	\$426	\$426	\$0	0.0%
Law School Summer Fee (per credit)	\$1,169	\$1,169	\$1,169	\$0	0.0%
Honors College Fee	\$0	\$300	\$300	\$0	0.0%
Other Fees (Not Student Related)					
Applied Music (private music lessons)	\$755	\$777	\$777	\$0	0.0%
Alumni Fee**(final semester only)	\$20	\$20	\$20	\$0	0.0%

Note: MASSPIRG fee may be assessed based on student referendum as governed by MGL c.15A, sec.29; not subject to Board or President's approval

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY2021-22	% Change FY2021-22
AUXILIARY CHARGES					
Room and Board:					
Double Room,A/C:OG/PD	\$9,613	\$10,094	\$10,397	\$303	3.0%
Cedar Dell "A" Room	\$9,977	\$10,476	\$10,790	\$314	3.0%
Cedar Dell	\$10,151	\$10,659	\$10,979	\$320	3.0%
New Apartments-4 Bedroom	\$10,604	\$11,134	\$11,468	\$334	3.0%
New Apartments-2 Bedroom	\$11,555	\$12,133	\$12,497	\$364	3.0%
Single,2-bed/1 bath a/c:Woodlands	\$11,079	\$11,633	\$11,982	\$349	3.0%
Unlimited Dining Plan	\$0	\$5,233	\$5,428	\$195	0.0%
Unlimited Plus Dining Plan	\$0	\$5,583	\$5,778	\$195	3.5%
Apartment Dining Plan	\$0	\$4,210	\$4,272	\$62	1.5%
Apartment Plus Dining Plan	\$0	\$4,710	\$4,772	\$62	1.3%
Apartment Max Dining Plan	\$0	\$5,210	\$5,272	\$62	1.2%
Commuter Dining Plan	\$0	\$600	\$600	\$0	0.0%
Commuter Plus Dining Plan	\$0	\$1,000	\$1,000	\$0	0.0%
Commuter Max Dining Plan	\$0	\$1,500	\$1,500	\$0	0.0%
<u>P3 Governing Board Approved</u>					
Balsam/Spruce - Single Occupancy	NA	\$10,876	\$11,203	\$327	3.0%
Balsam/Spruce - Double Occupancy	NA	\$9,812	\$10,107	\$295	3.0%
Parking:					
Reserved	\$550	\$550	\$550	\$0	0.0%
Summer Session	\$25	\$25	\$25	\$0	0.0%
Part-Time Students	\$50	\$55	\$55	\$0	0.0%
Part-Time Faculty & Staff	\$92.50	\$82.50	\$82.50	\$0	0.0%
Full-Time Students	\$165	\$165	\$165	\$0	0.0%
Full-Time Students - 1/2 term	\$92.50	\$82.50	\$82.50	\$0	0.0%
Resident Students	\$215	\$215	\$215	\$0	0.0%
Resident Students	\$108	\$108	\$108	\$0	0.0%
Program Fees (Continuing Education)					
Undergraduate Tuition (per credit)	\$342	\$352	\$332	(\$20)	-5.8%
Undergraduate Tuition Accelerated BS in Nursing (per credit)	\$663	\$683	\$631	(\$52)	-7.6%
Undergraduate Tuition On-Line (per credit)	\$342	\$352	\$332	(\$20)	-5.8%
Graduate Tuition EDU & MAT program (per credit)	\$402	\$414	\$390	(\$24)	-5.8%
Graduate Tuition ABA Program (per credit)	\$480	\$494	\$466	(\$28)	-5.7%
Graduate MBA &MPP Program (per credit)	\$570	\$587	\$553	(\$34)	-5.7%
Graduate MS in Computer Science Program	\$570	\$587	\$553	(\$34)	-5.7%
Graduate MS in Nursing (per credit)	\$570	\$587	\$553	(\$34)	-5.7%
On-line Technology Fee	\$150	\$150	\$150	\$0	0.0%
Application Fee	\$60	\$60	\$60	\$0	0.0%
Application Fee-ESL/ALCI	\$60	\$60	\$0	(\$60)	-100.0%
ALCI/ESL Program Fee (per semester)	\$6,312	\$6,312	\$6,312	\$0	0.0%
Non-Credit Tuition	\$15-\$2000	15-2000	15-2000	\$0	0.0%

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY2021-22	% Change FY2021-22
Campus Center (per credit)	\$5	\$5	\$5	\$0	0.0%
Library Fee (per credit)	\$6	\$6	\$6	\$0	0.0%
Registration (flat fee)	\$30	\$30	\$30	\$0	0.0%
Prior Learning Workshops	\$2,394	\$2,324	\$2,324	\$0	0.0%
College Fees	\$426 - \$1350	426-1350	426-1350		
Student Teacher Practicum Fee (per 3 credits)	\$800	\$800	\$750	(\$50)	-6.3%

Note: Continuing Education program fees reduced to align with actual assessment to students enrolled in these programs

FY 2022 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY2021-22	% Change FY2021-22
Administrative Fees					
Application Fee (In-State)	\$60	\$60	\$60	\$0	0.0%
Application Fee (Non-State)	\$65	\$65	\$65	\$0	0.0%
Registration Fee Law School	\$200	\$200	\$200	\$0	0.0%
Late Fee	\$60	\$60	\$60	\$0	0.0%
Late Registration Fee (graduate only)	\$100	\$100	\$100	\$0	0.0%
Transcript Fee-Freshman Only	\$100	\$100	\$100	\$0	0.0%
Transcript nondegree only	\$20	\$20	\$20	\$0	0.0%
ID (Replacement Only)	\$30	\$30	\$30	\$0	0.0%
Enrollment Deposit	\$200	\$200	\$200	\$0	0.0%

UNIVERSITY OF MASSACHUSETTS, LOWELL

STUDENT TUITION & FEE SCHEDULES

FY 2022 TUITION & MANDATORY FEES

FY 2022 NON-MANDATORY FEES

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2022 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

FY 2022 TUITION & MANDATORY FEES
SUMMARY TABLE

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	FY2021-22 \$ change	FY2021-22 % change
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (in state)	\$15,078	\$15,078	\$15,078	\$0	0.0%
Undergraduate (out-of-state)	\$33,004	\$33,004	\$33,004	\$0	0.0%
Undergraduate (New England Regional)	\$26,618	\$26,618	\$26,618	\$0	0.0%
MANDATORY FEES					
Campus Technology Fee (Undergraduate and Graduate)	\$350	\$400	\$400	\$0	0.0%
Student Activity Fee (Undergraduate& Graduate)	\$220	\$220	\$220	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (in state)	\$15,648	\$15,698	\$15,698	\$0	0.0%
Undergraduate (out-of-state)	\$33,574	\$33,624	\$33,624	\$0	0.0%
Undergraduate (New England Regional)	\$27,188	\$27,238	\$27,238	\$0	0.0%
RESIDENTS ONLY					
Average Residence Hall Rent	\$8,610	\$8,820	\$8,500	(\$320)	-3.6%
Average Board (Gold Plan)	\$4,940	\$5,070	\$5,070	\$0	0.0%
SUBTOTAL	\$13,550	\$13,890	\$13,570	(\$320)	-2.3%
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (in state)	\$29,198	\$29,588	\$29,268	(\$320)	-1.1%
Undergraduate (out-of-state)	\$47,124	\$47,514	\$47,194	(\$320)	-0.7%
Undergraduate (New England Regional)	\$40,738	\$41,128	\$40,808	(\$320)	-0.8%
<u>GRADUATE</u>					
TUITION					
Graduate (in state)*	\$14,590	\$14,590	\$14,590	\$0	0.0%
Graduate (out-of-state)*	\$26,370	\$26,370	\$26,370	\$0	0.0%
Graduate (New England Regional)*	\$22,401	\$22,401	\$22,401	\$0	0.0%
MANDATORY FEES					
Campus Technology Fee (Undergraduate and Graduate)	\$350	\$400	\$400	\$0	0.0%
Student Activity Fee (Undergraduate& Graduate)	\$220	\$220	\$220	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Graduate (in state)	\$15,160	\$15,210	\$15,210	\$0	0.0%
Graduate (out-of-state)	\$26,940	\$26,990	\$26,990	\$0	0.0%
Graduate (New England Regional)	\$22,971	\$23,021	\$23,021	\$0	0.0%
RESIDENTS ONLY					
Average Residence Hall Rent	\$8,610	\$8,820	\$8,500	(\$320)	-3.6%
Average Board (Gold Plan)	\$4,940	\$5,070	\$5,070	\$0	0.0%
SUBTOTAL	\$13,550	\$13,890	\$13,570	(\$320)	-2.3%
TOTAL TUITION AND ROOM & BOARD					
Graduate (in state)	\$28,710	\$29,100	\$28,780	(\$320)	-1.1%
Graduate (out-of-state)	\$40,490	\$40,880	\$40,560	(\$320)	-0.8%
Graduate (New England Regional)	\$36,521	\$36,911	\$36,591	(\$320)	-0.9%

* Graduate fee charges are on a 9 credit load basis.

FY 2022 NON-MANDATORY FEES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY2021-22	% Change FY2021-22
<u>Administrative Fees</u>					
Mass PIRG (\$11/semester)	\$22	\$22	\$22	\$0	0.0%
<u>International Fees</u>					
International Student Fee	\$1,000	\$1,000	\$1,000	\$0	0.0%
Hessen Exchange Program Fee	\$3,500	\$3,500	\$3,500	\$0	0.0%
Study Abroad Fee	\$300	\$300	\$300	\$0	0.0%
Faculty Led Study Abroad Fee**	Up to \$10,000	Up to \$15,000	Up to \$15,000	\$0	0.0%
<u>Health Fees</u>					
Student Health Insurance*	\$1,901	\$1,901	\$1,901	\$0	0.0%
<u>Program Fees</u>					
Nursing Testing Fees***	\$47 to \$80	Up to \$308	Up to \$308	\$0	0.0%
Advanced Health Assessment Fee (Graduate) ****	\$450	\$450	\$500	\$50	11.1%
Ed. D Online Summer Residency Fee	\$850	\$850	\$850	\$0	0.0%
M.Ed. Curriculum & Instruction Pre-Practicum Charge	\$150	\$150	\$150	\$0	0.0%
<u>Differential Tuition Charges</u>					
Francis College of Engineering Fee	\$950	\$950	\$950	\$0	0.0%
Kennedy School of Sciences Fee	\$745	\$850	\$850	\$0	0.0%
Music Fee	\$700	\$700	\$700	\$0	0.0%
Art Fee	\$700	\$700	\$700	\$0	0.0%
College of Education Fee (Undergrad & Grad)	\$300	\$300	\$300	\$0	0.0%
Honors College Fee	\$100	\$100	\$100	\$0	0.0%
Manning School of Business Fee	\$700	\$700	\$700	\$0	0.0%
Zuckerberg College of Health Sciences Fee	\$700	\$700	\$700	\$0	0.0%
Solomont School of Nursing Fee	\$1,000	\$1,000	\$1,000	\$0	0.0%

*Includes \$20 School Specific Fee

** Based on Faculty Led Study Abroad Course.

*** Effective 9/1/2020, this pricing covers exams for the year for fall and spring courses

**** Required of certain School of Health and Environment students taking a specific course at UMass Worcester.

Note: MASSPIRG fee may be assessed based on student referendum as governed by MGL c.15A, sec.29; not subject to Board or President's approval

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY2021-22	% Change FY2021-22
AUXILIARY CHARGES					
Auxiliary Fees					
<u>Residence Halls Rooms:****</u>					
<u>Rate A</u>					
Concordia Double	\$8,610	\$8,820	\$8,500	(\$320)	-3.6%
Fox Triple /Quad	\$8,610	\$8,820	\$8,500	(\$320)	-3.6%
Leitch & Bourgeois Quad	\$8,610	\$8,820	\$8,500	(\$320)	-3.6%
<u>Rate B</u>					
Fox Double	\$8,750	\$8,970	\$8,500	(\$470)	-5.2%
<u>Rate C</u>					
Fox Enhanced Double	\$8,870	\$9,100	\$8,500	(\$600)	-6.6%
Leitch & Bourgeois Double	\$8,870	\$9,100	\$8,500	(\$600)	-6.6%
<u>Rate D</u>					
ICC Double (& Quad)	\$9,500	\$9,740	\$8,500	(\$1,240)	-12.7%
<u>Rate E</u>					
River Hawk Village Studio	\$10,200	\$10,460	\$11,000	\$540	5.2%
Sheehy Suite	\$10,200	\$10,460	\$9,100	(\$1,360)	-13.0%
<u>Rate F</u>					
Donahue Suites	\$10,600	\$10,870	\$9,100	(\$1,770)	-16.3%
Concordia Singles	\$10,600	\$10,870	\$8,500	(\$2,370)	-21.8%
Fox Special Single	\$10,600	\$10,870	\$8,500	(\$2,370)	-21.8%
<u>Rate G</u>					
Riverview Suites East	\$11,150	\$11,430	\$10,100	(\$1,330)	-11.6%
<u>Rate H</u>					
University Suites	\$11,250	\$11,540	\$10,100	(\$1,440)	-12.5%
<u>Rate I</u>					
Merrimack Double	\$11,450	\$11,740	NA	NA	NA
Riverview Suites West	\$11,450	\$11,740	\$11,000	(\$740)	-6.3%
<u>Rate J</u>					
River Hawk Village Standard	\$11,650	\$11,950	\$11,000	(\$950)	-7.9%
1301 Middlesex	\$11,650	\$11,950	N/A	N/A	N/A
Merrimack Single	\$11,650	\$11,950	N/A	N/A	N/A
<u>Rate K</u>					
River Hawk Village Delux	\$11,900	\$12,200	\$11,300	(\$900)	-7.4%
River Hawk Village Delux Townhouse	\$11,900	\$12,200	\$11,300	(\$900)	-7.4%
Meal Plan Options:					
Platinum Unlimited + 350 points and 8 guest meals	\$5,120	\$5,250	N/A	N/A	N/A
Gold Unlimited + 200 points and 8 guest meals	\$4,940	\$5,070	\$5,070	\$0	0.0%
Silver 125 Block Meals and \$450 points and 5 guest meals	\$4,450	\$4,560	N/A	N/A	N/A
Apartment Meal Plan			\$4,200		
Program Fees (Continuing Education)					
Continuing Studies/Corporate Education Tuition/Fees: *					
Undergrad Tuition per Credit Hour face to face**	\$340	Up to \$360	Up to \$360	\$0	0.0%
Graduate Tuition per Credit Hour face to face	\$575	Up to \$630	Up to \$630	\$0	0.0%
Undergrad Tuition (High Tech/Corporate)	Up to \$450	Up to \$450	Up to \$450	\$0	0.0%
Undergrad Tuition (Online) per credit hour	\$380	Up to \$400	Up to \$400	\$0	0.0%
MSB Undergraduate Online Courses and Audit	\$385	Up to \$425	Up to \$425	\$0	0.0%
Graduate Tuition (Online) per credit hour	\$575	Up to \$630	Up to \$630	\$0	0.0%
Graduate Tuition (MBA, Online & On-campus) distance per credit hour	\$655	Up to \$725	Up to \$725	\$0	0.0%
Graduate Tuition (Education) per credit hour	\$470	Up to \$500	Up to \$500	\$0	0.0%

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY2021-22	% Change FY2021-22
MSIT and Masters in Engineering Management	\$590	Up to \$625	Up to \$625	\$0	0.0%
Program Pricing Pilot***	Up to \$750	Up to \$750	Up to \$750	\$0	0.0%
Application Fee	Up to \$75	Up to \$75	Up to \$75	\$0	0.0%
Registration Fee	\$30	\$30	\$30	\$0	0.0%
CAS Engineering Application Fee+	\$75	\$75	\$75	\$0	0.0%
Late Registration Fee	\$50	\$50	\$50	\$0	0.0%
Returned Check Fee	\$30	\$30	\$30	\$0	0.0%
Parking Fees:					
a Faculty/Staff (per contracts)	\$400	\$400	\$400	\$0	0.0%
b Adjunct Faculty	\$115	\$125	\$125	\$0	0.0%
c Part-time Staff	\$175	\$175	\$175	\$0	0.0%
d Reserved/Designated Parking	\$1,400	\$1,500	\$1,500	\$0	0.0%
e Resident Students	Up to \$450	Up to \$450	Up to \$450	\$0	0.0%
f Commuter Students	Up to \$450	Up to \$450	Up to \$450	\$0	0.0%
g RA/TA's	NA	Up to \$225	Up to \$225	\$0	0.0%

* In addition, Continuing Studies/Corporate Education also conducts a variety of community, corporate and professional development programs, typically non-credit in nature, where charges are set as appropriate to the activity.

** Tuition is priced on the listed credit hour unless the contact hour is different. Tuition is then based upon the listed contact hour.

*** Pilot program where tuition rates will be set in select online programs based on the mix of online and on-campus courses available to students.

+\$7 of the \$75 charge will be used to provide CAS application fee waivers.

**** Waived for Resident Advisors.

FY 2022 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY2021-22	% Change FY2021-22
SALES & SERVICE AND ADMINISTRATIVE CHARGES					
Administrative Fees					
Application Fee: Resident	\$60	\$60	\$60	\$0	0.0%
Non-Resident	\$60	\$60	\$60	\$0	0.0%
Graduate Certificate	\$50	\$50	\$50	\$0	0.0%
Returned Check Fee (Per Check)	\$30	\$30	\$30	\$0	0.0%
Late Fee (per Semester)	\$50	\$50	\$50	\$0	0.0%
Library:					
Lost Book Processing	\$30	\$30	\$30	\$0	0.0%
Replacement Book	\$130	\$130	\$130	\$0	0.0%
Lost Reserve Folder	\$30	\$30	\$30	\$0	0.0%
Corporate Library Patron	\$200	\$200	\$200	\$0	0.0%
Dissertation Archival Fee	\$50	\$50	\$50	\$0	0.0%
Other Fees (Not Student Related)					
Trust Fund Overhead Charge	up to 20%	up to 20%	up to 20%	\$0	0.0%
Athletics:					
Basketball:					
Kid ticket	\$3	\$3	\$3	\$0	0.0%
Adult Ticket	\$5	\$5	\$5	\$0	0.0%
Ice Hockey:					
Kids Ticket	\$11	\$11	\$11	\$0	0.0%
Student Ticket - non-UMass Lowell	\$14	\$14	\$14	\$0	0.0%
Adult Ticket	\$17	\$17	\$17	\$0	0.0%
Senior Tickets	\$14	\$14	\$14	\$0	0.0%
Group Tickets (20 people or more)	\$7 & \$10	\$7 & \$10	\$7 & \$10	\$0	0.0%
<i>City Ticket Surcharge for all UML Hockey Games included above.</i>					
Soccer:					
Adult Ticket		\$5	\$5	\$0	0.0%
Lacrosse:					
Adult Ticket		\$5	\$5	\$0	0.0%
Recreation Center Charges:					
Membership/12 Months 6:30 - 1:00 (tentative)	\$35-\$500	\$35-\$500	\$35-\$500	\$0	0.0%
Membership Card Replacement	\$20	\$20	\$20	\$0	0.0%
Special Programs and Classes	\$5-\$2500	\$5-\$2500	\$5-\$2500	\$0	0.0%

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL

STUDENT TUITION & FEE SCHEDULES

FY 2022 TUITION & MANDATORY FEES

FY 2022 NON-MANDATORY FEES

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2022 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

**FY 2022 TUITION & MANDATORY FEES
SUMMARY TABLE**

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY 2021-22	% Change FY 2021-22
TUITION					
Medical School - (in-state)	\$36,030	\$36,570	\$37,120	\$550	1.5%
Medical School (out-of-state)	\$61,960	\$62,889	\$63,832	\$943	1.5%
Graduate School of Nursing: *					
In state students	\$14,064	\$14,275	\$14,490	\$215	1.5%
NE Regional	\$17,444	\$17,706	\$17,972	\$266	1.5%
Out of state	\$19,230	\$19,518	\$19,812	\$294	1.5%
GSN Graduate Entry Program (year 1):					
In state students	\$43,854	\$44,512	\$45,180	\$668	1.5%
NE Regional	\$50,128	\$50,880	\$51,644	\$764	1.5%
Out of state	\$56,400	\$57,246	\$58,106	\$860	1.5%
Grad. School of Biomedical Science (in-state)	\$14,506	\$14,724	\$14,946	\$222	1.5%
Grad. School of Biomedical Science(out-of-state)	\$31,862	\$32,340	\$32,826	\$486	1.5%
MANDATORY FEES					
Equipment Fee (Medical & Nursing Schools)	\$334	\$334	\$338	\$4	1.2%
Assessment Fee (Medical School)	\$600	\$375	\$380	\$5	1.3%
Certification Fee (Medical School)	\$120	\$120	\$132	\$12	10.0%
Simulation Fee (CELS) (Medical School)	\$206	\$206	\$208	\$2	1.0%
Health / Counseling Fee (All Schools)	\$861	\$861	\$874	\$13	1.5%
Student Services Fee (All Schools)	\$195	\$195	\$198	\$3	1.5%
SUBTOTAL OTHER MANDATORY FEES					
Medical School	\$2,316	\$2,091	\$2,130	\$39	1.9%
Graduate School of Nursing	\$1,390	\$1,390	\$1,410	\$20	1.4%
Graduate School of Biomedical Science	\$1,056	\$1,056	\$1,072	\$16	1.5%
TOTAL MANDATORY FEES & TUITION					
Medical School - (in-state)	\$38,346	\$38,661	\$39,250	\$589	1.5%
Medical School (out-of-state)	\$64,276	\$64,980	\$65,962	\$982	1.5%
Graduate School of Nursing (in-state)	\$15,454	\$15,665	\$15,900	\$235	1.5%
Graduate School of Nursing (NE regional)	\$18,834	\$19,096	\$19,382	\$286	1.5%
Graduate School of Nursing (out-of-state)	\$20,620	\$20,908	\$21,222	\$314	1.5%
GSN Graduate Entry Program (in-state)	\$45,244	\$45,902	\$46,590	\$688	1.5%
GSN Graduate Entry Program (NE regional)	\$51,518	\$52,270	\$53,054	\$784	1.5%
GSN Graduate Entry Program (out-of-state)	\$57,790	\$58,636	\$59,516	\$880	1.5%
Grad. School of Biomedical Science (in-state)	\$15,562	\$15,780	\$16,018	\$238	1.5%
Grad. School of Biomedical Science(out-of-state)	\$32,918	\$33,396	\$33,898	\$502	1.5%

* Based on 18 credits

FY 2022 NON-MANDATORY FEES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY 2021-22	% Change FY 2021-22
Ph.D./MD (in-state) *****	36,030	36,570	37,120	\$550	1.5%
Ph.D./MD Years 1-2 (out-of-state) *****	61,960	62,889	63,832	\$943	1.5%
Ph.D./MD Years 3+ (out-of-state) *****	61,960	62,889	63,832	\$943	1.5%
Administrative Fees:					
Commencement Fee	\$252	\$255	\$258	\$3	1.2%
Extension Fee - Medical Students (in-state)***	\$24,034	\$7,000	\$7,106	\$106	1.5%
Extension Fee - Medical Students (out-of-state)***	\$41,340	\$7,000	\$7,106	\$106	1.5%
Diagnostic Instruments - Medical Students	\$800	\$812	\$824	\$12	1.5%
FSSC Fee (Nursing School acute subspecialties)	\$350	\$355	\$360	\$5	1.4%
Typhon Software (Education Tracking Software - Nursing School)	\$128	\$129	\$130	\$1	0.8%
Graduate Entry Program ATI Fee (On-line modules for GEP Nursing Students)	\$1,236	\$1,255	\$1,274	\$19	1.5%
Nursing Leadership Fee (Nursing School)	\$140	\$142	\$144	\$2	1.4%
Program Fees:					
Doctoral Continuation Fee - Graduate School of Nursing **	\$2,318	\$2,353	\$2,388	\$35	1.5%
Elective Fee - Medical School	\$103	\$104	\$106	\$2	1.9%
Elective Fee - International - Medical School	\$1,000	\$1,015	\$1,030	\$15	1.5%
Continuing Course Fee - Graduate School of Nursing	\$100	\$101	\$102	\$1	1.0%
Program Fee - PhD/MD and Grad School of Biomed. Sci. **	\$100	\$101	\$102	\$1	1.0%
On-line Technology Fee - Graduate School of Nursing	\$25	\$25	\$25	\$0	0.0%
Health Sciences Preparatory Program Course Fee	\$110	\$110	\$112	\$2	1.8%
Pathway to Graduate Study Program Course Fee	\$110	\$110	\$112	\$2	1.8%
Lab Fees:					
Acute Care Lab Fee (Nursing School)	\$450	\$456	\$462	\$6	1.3%
Advanced Health Assessment (Nursing School)	\$1,000	\$1,015	\$1,030	\$15	1.5%
Clinical Lab Fee (Nursing School clinical year only)	\$2,000	\$2,030	\$2,060	\$30	1.5%
Health Assessment Lab Fee (Nursing School)	\$495	\$502	\$510	\$8	1.6%
Standardized Patient Lab Fee (Nursing School)	\$175	\$177	\$180	\$3	1.7%
Health Fees:					
Disability Insurance*	\$72	\$72	\$72	\$0	0.0%
Supplemental Health Insurance ****	\$4,050	\$4,175	\$4,236	\$61	1.5%

* For AAMC accreditation, all Medical Students are required to hold some form of disability insurance. Disability insurance for Graduate Biomedical Science students is paid for by the Graduate School, and disability insurance is not available to students in the Graduate School of Nursing.

** Fees are on a per semester basis.

*** Fee is on an annual basis.

**** Supplemental Health Insurance and Disability Insurance fees are pass through costs and are subject to change pending final rates from the insurance carrier.

***** Ph.D./MD students are charged the MD or GSBS rates as appropriate for their year in the program and the PhD/MD fee is waived and only charged to the students if they later drop out of the program.

FY 2022 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY 2021-22	% Change FY 2021-22
Grad School of Nursing On-line (per unit)	\$781	\$793	\$804	\$11	1.4%

FY 2022 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2020 Actual	FY2021 Actual	FY2022 Proposed	\$ Change FY 2021-22	% Change FY 2021-22
Administrative Fees:					
Application Fee - Medical School	\$100	\$100	\$100	\$0	0.0%
Elective Application Fee - International - Medical School	\$200	\$200	\$200	\$0	0.0%
Application Fee - Grad. Sch. of Nursing	\$100	\$100	\$100	\$0	0.0%
Application Fee - Grad. Sch. of Biomed. Sci.	\$80	\$80	\$80	\$0	0.0%
GSN Registration Fee (non-matrices only)	\$30	\$30	\$30	\$0	0.0%
Late Registration / Late Payment	\$50	\$50	\$50	\$0	0.0%

Appendix C: Annual Financial Report

University of Massachusetts

Annual Financial Report 2021





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Some photos taken prior to COVID-19 masking and social distancing practices.

University Administration

As of November 2021

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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

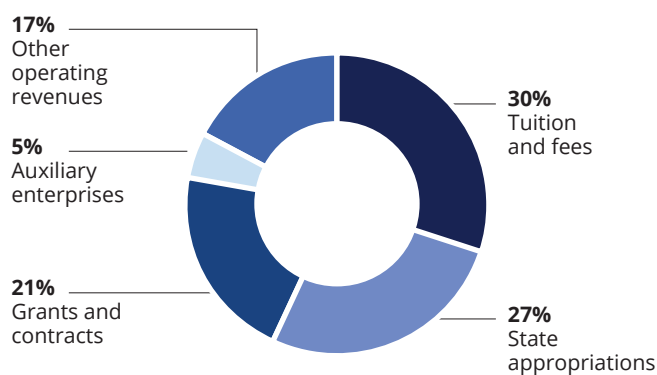
Operating Revenues and Expenses

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.

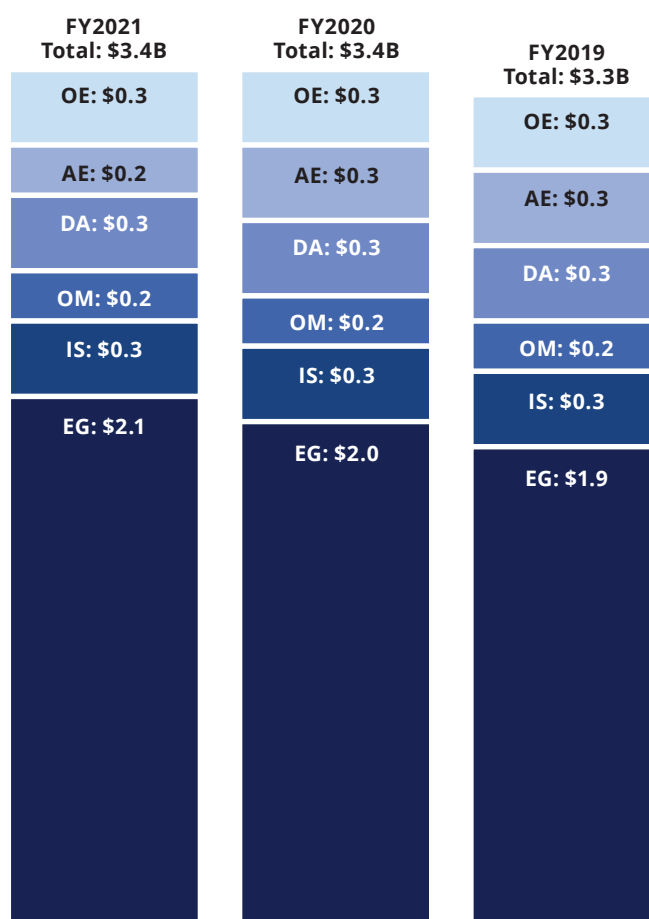
Other operating revenues includes revenues generated from CWM programs. These programs provide public consulting and services in health care financing, administration and policy to federal, state and local agencies and not-for-profit health and policy organizations. In addition to CWM activities, other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

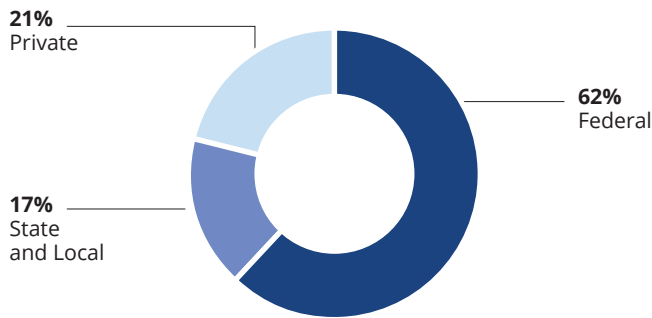
Appropriation	2021	2020	2019
State appropriations	\$ 568,350	\$ 566,941	\$ 542,095
Plus: fringe benefits	277,131	243,577	238,126
Commonwealth support	\$ 845,481	\$ 810,518	\$ 780,221

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

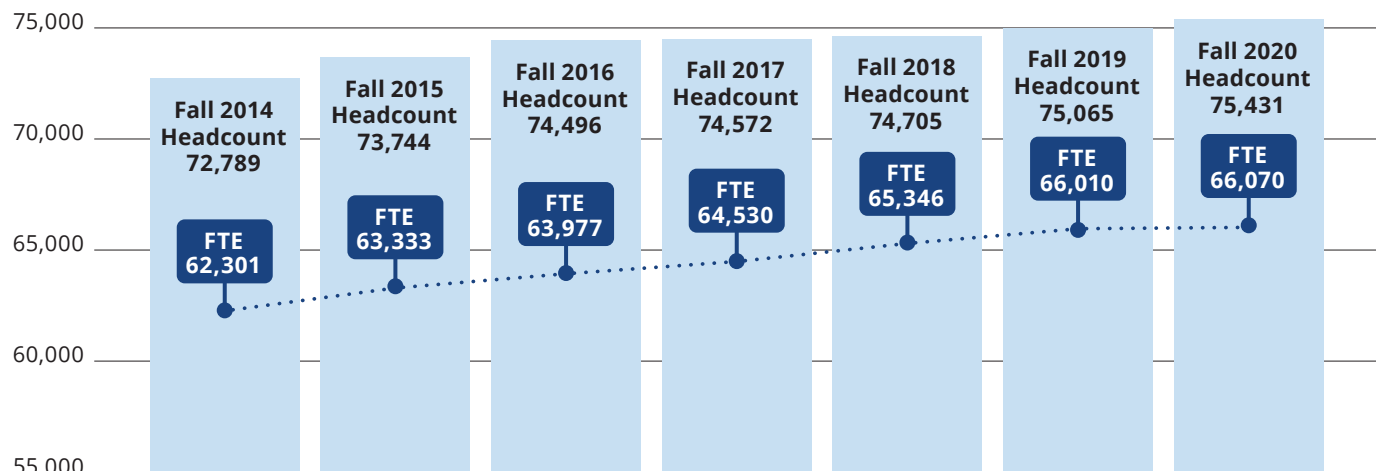
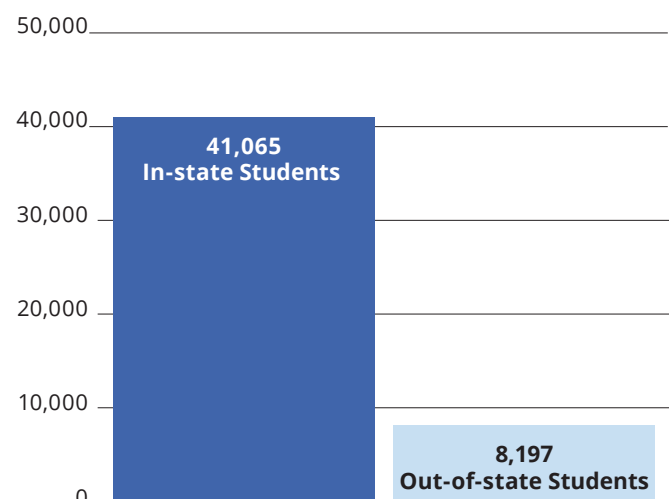


FIGURE 10 – Fall 2020 Undergraduate Enrollment by Type

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

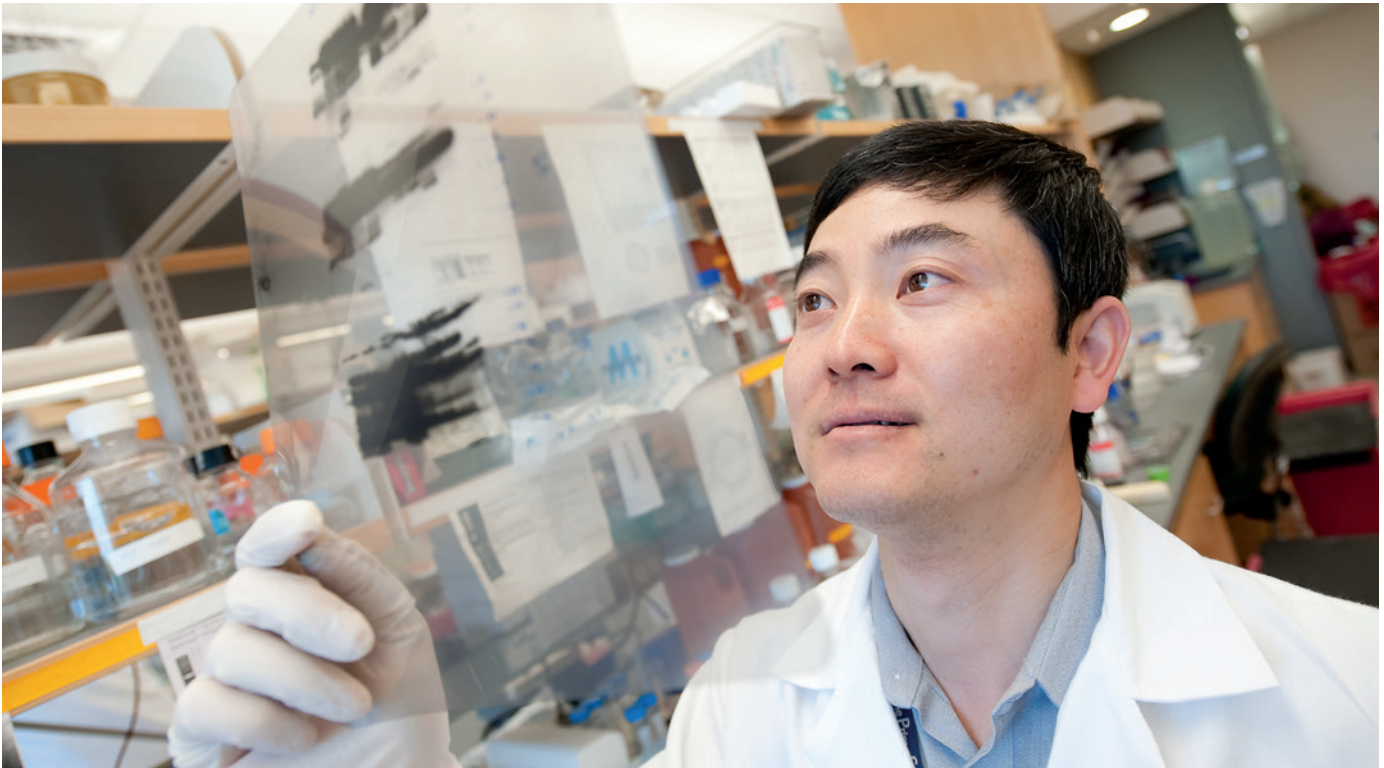
On November 10, 2020, the Governor signed into law a statutory change allowing the University and the Building Authority to borrow up to 8% of the University's total operating budget for the working capital needs of the University. Effective June 1, 2021, the University entered into line of credit agreements 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%

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University of Massachusetts

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

Appendix D: Credit Ratings

D-1. Moody's Rating Report – October 2020

D-2. S&P Rating Report – October 2020

D-3. Fitch Rating Report – October 2020

D-4. Moody's Rating Report – March 2021



Appendix D-1: Moody's Rating Report – October 2020



CREDIT OPINION

1 October 2020


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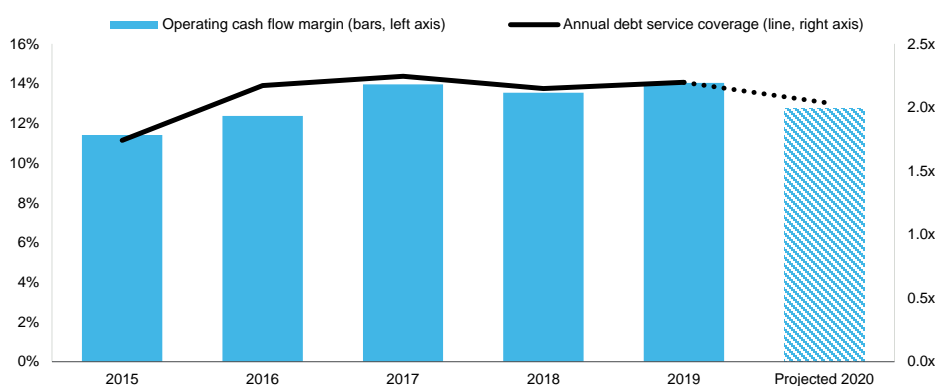
University of Massachusetts

Update to credit analysis

Summary

[University of Massachusetts](#) (Aa2 stable) strong credit quality stems from its large scale and scope of operations, inclusive of the flagship and multiple campuses across Massachusetts, its strong relationship with an academic medical center and its excellent strategic positioning that incorporates strengthened fiscal oversight. Credit strengths are also drawn from solid operating and capital support from the [Commonwealth of Massachusetts](#) (Aa1 stable), significant research activity and growing net tuition revenue. These factors will provide UMass with sufficient runway to manage through near-term operating volatility associated with the coronavirus pandemic. UMass remains challenged by weaker spendable cash and investments to operations and debt at 0.5x and 0.5x, respectively, relative to peers, with continued capital needs and monitoring of two public-private partnerships. The university will continue to contend with historically modest philanthropic activity and expected declines in high school graduates in the university's core service, though enrollment at most campuses remains healthy.

Exhibit 1

Projected fiscal 2020 operating performance nearly in line with prior years' reflects strong financial discipline to manage coronavirus impacts


Source: Moody's Investors Service

Credit strengths

- » Important role in Massachusetts public higher education, with sizable multi-campus \$3.4 billion scope of operations, serving 66,003 full-time equivalent (FTE) students
- » Solid, consistent operating and capital support from Aa1-rated Massachusetts
- » Strong fiscal discipline and oversight leading to good operating cash flow margins and over 2x debt service coverage for fiscal 2019, with similar results projected in fiscal 2020
- » Growing enrollment, net tuition revenue and research activity

Credit challenges

- » Low spendable cash and investments to debt and operations and modest fundraising relative to peers
- » Collective bargaining agreements and union contracts constrain expense flexibility
- » Moderately high debt burden and extensive capital needs, including managing rising investment in public-private partnerships
- » Highly competitive student demand and competitive research funding environments

Rating outlook

The stable outlook reflects our expectation of continuing steady enrollment and positive operating performance, continued solid state support, and modest additional debt.

Factors that could lead to an upgrade

- » Substantial growth of reserves relative to debt and operations
- » Sustained and material improvement of operating cash flow and debt service coverage

Factors that could lead to a downgrade

- » Realization of more material downside risks associated with the coronavirus pandemic, driving heightened revenue pressure
- » Sustained decrease in debt service coverage to below 2.0x including a decline in spendable cash and investments to debt below 0.4x
- » Reduction of state support for operations or capital

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody's.com for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

University of Massachusetts, MA

	2015	2016	2017	2018	2019	Pro Forma 2019	Median: Aa Rated Public Universities
Total Fall FTE Enrollment	63,333	63,978	64,530	65,347	66,003	66,003	30,062
Operating Revenue (\$000)	2,861,473	3,219,260	3,289,330	3,365,547	3,390,137	3,390,137	1,282,865
Annual Change in Operating Revenue (%)	-1.4	12.5	2.2	2.3	0.7	0.7	4.2
Total Cash & Investments (\$000)	1,559,144	1,483,807	1,655,974	1,885,013	2,023,664	2,023,664	1,582,410
Total Debt (\$000)	2,954,159	2,855,910	3,055,930	3,065,672	3,118,388	3,346,456	690,511
Spendable Cash & Investments to Total Debt (x)	0.4	0.4	0.4	0.5	0.5	0.5	1.5
Spendable Cash & Investments to Operating Expenses (x)	0.4	0.4	0.4	0.4	0.5	0.5	0.7
Monthly Days Cash on Hand (x)	110	92	119	139	135	135	157
Operating Cash Flow Margin (%)	11.4	12.4	14.0	13.5	14.0	14.0	11.8
Total Debt to Cash Flow (x)	9.0	7.2	6.7	6.7	6.6	7.0	4.1
Annual Debt Service Coverage (x)	1.7	2.2	2.2	2.1	2.2	2.0	2.8

Note: Pro Forma 2019 reflects fiscal 2019 data incorporating new money debt from the Series 2020-1, 2020-2 and planned 2020-4 bonds, as well as principal amortizations during fiscal 2020. Total debt also includes privatized student housing public-private partnerships (PPPs).

Source: Moody's Investors Service

Profile

University of Massachusetts is a large public university system serving the Commonwealth of Massachusetts. The system includes five campuses: Amherst (flagship), [Boston](#), [Dartmouth](#), [Lowell](#) and [Worcester](#) (medical school); and UMass Online. Included in UMass' operations is Commonwealth Medicine, a public, nonprofit healthcare consulting organization. Fiscal 2019 operating revenue was \$3.4 billion and fall 2019 enrollment was 66,003 full-time equivalent (FTE) students.

The [University of Massachusetts Building Authority](#), the university's debt issuance arm, is a public instrumentality of the Commonwealth of Massachusetts and is empowered to construct dormitory, auxiliary, academic and other facilities for the university's campuses. The authority's financial data is consolidated within the university's audited financial statements as a blended component unit.

Detailed credit considerations

Market profile: sound demand as large, diversified public higher education system

The University of Massachusetts' student demand will remain sound because of its role as an essential provider of public higher education across multiple campuses, including the state's flagship public university, with sizable scale and scope of operations.

Overall enrollment across the UMass campuses for fall 2020 is down a modest 0.5%, which is more favorable than the budgeted 5.0% decrease. Similar to most US universities, UMass was budgeting around an enrollment decline due to multiple economic, as well as public health and safety uncertainties stemming from the coronavirus pandemic. All of the UMass campuses remain in remote learning delivery modes, with certain exceptions for on-campus instruction (primarily in-person labs). The preliminary fall 2020 FTE count is 65,669, compared to 66,005 in fall 2019. By campus, enrollment remained relatively flat, with the exception of UMass-Dartmouth where the preliminary student count decreased by 3.6%, though less than the budgeted 10.2%.

The university's initiative for increasing its online capacity and presence will grow with its announced June 2020 partnership with Brandman University, a California-based nonprofit online provider that was a component of [Chapman University](#) (A2 stable). Brandman currently provides online educational services to approximately 24,000 students, including a range of adult learners. UMass expects that the final terms of the strategic partnership with Brandman will be agreed upon by the end of calendar 2020, with online classes commencing in calendar 2021. The ultimate credit impact will depend on the successful integration of the entities, which will occur over time.

University of Massachusetts maintains a sizable research profile, which enhances its reputation and revenue diversity. Research activity, totaling \$488 million in fiscal 2019 (14% of expenses), is concentrated at the Amherst and Worcester campuses in biomedical, applied materials and sustainability areas.

Operating performance: financial accountability framework underpins strong fiscal oversight and addressing budget gaps

UMass' improved multi-campus fiscal oversight and multiyear planning for financial stability has been essential to manage the financial disruptions associated with the coronavirus pandemic. However, uncertainty around spring campus reopenings and state funding will impact current budget projections for fiscal 2021.

The estimated fiscal 2020 operating cash flow margin of around 13% is slightly below fiscal 2019's 14% margin, with debt service coverage of 2.0x compared to 2.2x in fiscal 2019. The total impact to fiscal 2020 operations because of coronavirus-related disruptions was \$114 million, with the gap closed by a combination of cost containment measures, hiring freezes, workforce furlough and reductions, and CARES Act funding, among other solutions.

For fiscal 2021, the university is currently addressing a \$335 million gap due primarily to auxiliary revenue reductions associated with virtually all students in remote learning mode for fall 2020. To date, as a result of ongoing expense reductions and efficiencies, the gap is estimated at a limited \$5 million. Higher enrollment that originally budgeted has helped limit the budget gap, though flat tuition and fees for fiscal 2021, and lost auxiliary revenue for at least the fall semester will constrain growth in student charges.

Historically strong and consistent state operating appropriations, comprising 23% of fiscal 2019 revenue and roughly similar for fiscal 2020, in addition to solid capital support, contribute to the university's excellent credit quality but also link the university closely to the state's credit quality. The university is currently planning around a 10% reduction in state appropriations for fiscal 2021, though the state is not expected to pass its budget until October 2020. UMass received \$3.0 million in CARES Act Governor's Emergency Education Relief (GEER) funding in fiscal 2021.

Operating appropriations, including amounts for fringe benefits, rose a substantial 26% during the fiscal 2015-19 period. Although the university's financial flexibility is constrained by agreements with collective bargaining units negotiated at the state level, the state favorably has funded a share of increased salary costs. Capital support totaled a significant nearly \$400 million over the fiscal 2015-19 period.

Very good revenue diversity, reflecting student charges, state support and research activity enhance UMass' operating profile, continuing into fiscal 2020. Student charges, comprising 41% of fiscal 2019 operating revenue of \$3.4 billion, were up a strong 21% over the fiscal 2015 to fiscal 2019 period.

Wealth and liquidity: stable wealth despite coronavirus disruptions

The system's financial reserve levels, while adequate, will remain below peer levels when compared to both debt and operations. Donor-supported reserve growth is modest relative to peers, with capital campaigns decentralized among the campuses. Improved philanthropic activity would bolster growth in cash and investments, complementing stable operating cash flow and favorable focus to rebuild reserves.

Cash and investments totaled \$2.0 billion for fiscal 2019, up 30% over fiscal 2015. Fiscal 2019 spendable cash and investments of \$1.56 billion covered operating expenses by 0.47x, less than the Aa2-median of 0.7x.

Favorably, management projects nearly similar levels of cash and investments relative to operating expenses for fiscal 2020, reflecting no use of reserves for operations. Current fiscal 2021 budget projections limit use of reserves or liquidity to balance operations. The university is evaluating the addition of a \$150 million line of credit for to provide additional liquidity, though legislative approval is required. UMass is seeking approval at the upcoming October legislative session.

University and UMass Foundation assets are managed by the foundation board, with oversight from a chief investment officer and assistance from a third party advisor. The combined endowment of \$1.0 billion at fiscal end June 30, 2020 was up 3.3% for the one year period. Assets allocation is in line with similarly rated peers.

Liquidity

UMass' liquidity relative to operating expenses is modest relative to Aa2-rated peers, but generally improving based on a newly implemented reserve policy. Monthly liquidity of \$1.12 billion translated to 135 monthly days cash on hand for 2019, significantly improved from the 92 days recorded for fiscal 2016. Fiscal 2020 liquidity is likely to be similar. Though monthly liquidity is less than the Aa2-median of 164 days, relatively stable operating performance, a mostly fixed rate debt portfolio and limited other expected calls on liquidity mitigate unexpected liquidity use.

Leverage: elevated leverage with planned fall 2020 issuance to provide near term budgetary relief

The university's leverage is elevated relative to rated peers. With lower wealth levels than peers, spendable cash and investments covered fiscal 2019 debt of \$3.1 billion by just 0.5x, well below the Aa2-rated median of 1.3x. Favorably, the university maintains a debt policy such that aggregate debt service will not exceed 8% of expenditures and projects remaining at or below 7% through fiscal 2025. The system also has strong management oversight for its detailed capital planning and approval process that fully integrates campus master plans and five-year forecasts.

With fiscal 2021 operations highly uncertain because of coronavirus-relative disruptions and the state budget not yet passed, the university has opted to fund its November 1, 2020 principal payment of roughly \$93 million with a portion of a planned fall 2020 new issue. While funding a principal payment from debt rather than operations would normally be considered credit negative, the plan provides favorable cash flow relief.

The fiscal 2019-23 capital plan totals \$2.1 billion. Though borrowing plans and timing are not currently firm, the system expects to issue up to \$400 million. Favorably, the state has been an important capital funding partner, providing nearly \$400 million in capital appropriations over the fiscal 2015-19 period. Additional capital funding is derived from operating cash flow, future debt, gifts and third party developers. UMass makes principal payments of roughly \$100 million annually, with the current schedule reducing 54% of outstanding debt within 15 years. A portion of the university's outstanding debt profile includes a \$200 million Series 2013A and 2013B Commercial Paper (CP) program. Currently, there is no outstanding CP, as it was taken out by the Series 2020-1 and 2020-2 refunding bonds.

Our value for total debt at fiscal 2019 of \$3.3 billion includes \$262 million attributable to privatized student housing projects at the [UMass-Boston](#) and [UMass-Dartmouth](#) campuses. The university has expanded its use of public-private partnerships (PPPs) as an alternative to finance revenue-generating projects. The first project was completed at the UMass Boston campus for its first housing facility comprised of 1,087 beds, opening in fall 2018. A second project at the UMass Dartmouth campus, for 1,210 beds in a two-building housing facility opened this fall 2020. Planning for a third PPP at the Amherst campus for housing projects has been temporary halted because of coronavirus-related priorities. Though these project level financings are non-recourse to the campuses and the university, because of strategic linkages of the projects to the UMass campuses through cooperation agreements, we incorporate the debt within the overall debt profile. The UMass-Boston and UMass-Dartmouth projects are open in fall 2020, but with very limited occupancy because classes are virtually all online. To date, the university and campuses have not provided any funding to the project owners to offset revenue reductions.

Legal security

The bonds and commercial paper notes are special obligations of the University of Massachusetts Building Authority (UMBA) payable from payments made by the university under a Contract for Management and Services. Under the contract between the university and UMBA, the university is required to remit to the authority annually an amount sufficient to pay debt service and other costs associated with operating and maintaining the financed projects during the next year, referred to as the Certified Amount. The annual certified amount is payable from a variety of revenue streams, including all legally available revenue of the university and UMBA, including state appropriations, as well as unrestricted net assets. For fiscal 2019, spendable cash and investments totaled \$1.56 billion relative to the certified amount of approximately \$236 million. While certified figures for fiscal 2020 are not yet available, relative amounts are expected to be similar.

Tender features of the university's Series 2011-1 variable rated bonds are supported by a standby bond purchase agreement (SBPA) with [Wells Fargo Bank, NA](#), which expires on August 12, 2022. The Series 2013B CP notes are supported by an SBPA with [US Bank NA](#), that expires August 12, 2022.

Debt structure

Favorably, debt is predominantly fixed rate with regular amortization. A manageable 9% of the university's fiscal 2019 debt was issued in a variable-rate mode, and much of it is swapped to fixed interest rates. At fiscal end 2019, the university's unrestricted monthly liquidity covered demand debt a good 2.5x.

Liquidity facilities and swaps are well diversified across different counterparties. Tender features of the university's Series 2011-1 variable rated bonds are supported by a standby bond purchase agreement (SBPA) with Wells Fargo Bank, NA which expires on August 12, 2022.

The university has two commercial paper programs with a combined \$200 million authorization. The Series 2013A CP notes are supported by an SBPA with [State Street Bank and Trust Company](#) and the Series 2013B CP notes are supported by an SBPA with US Bank NA. Both CP note SBPAs expire on August 12, 2022. Moody's does not rate the Series 2013A CP notes.

Debt-related derivatives

The university has three interest rate swaps in place to hedge the interest rates of its variable rate debt. The counterparties are [Citibank NA](#), [UBS AG](#) and [Deutsche Bank AG](#). Under the swaps, the authority is not required to post collateral at its current rating level. The counterparties can terminate the swaps if the authority's long-term unsecured senior debt rating is withdrawn, suspended or falls below Baa2 (or the equivalent from another credit rating agency). As of August 31, 2020, the swaps had a combined notional value of \$284 million and a combined mark to market swap liability of \$72.5 million.

Pensions and OPEB

The university has moderate exposure to additional debtlike obligations through its participation in the Massachusetts State Employees Retirement System (SERS), which is a cost sharing multiple-employer retirement plan sponsored by the state. The Moody's three-year adjusted net pension liability (ANPL) for the university is \$1.19 billion, and combined with pro forma debt, represents 1.4x operating revenue for fiscal year 2019, on par with the Aa2-rated public university median of 1.4x. Pension contributions for those in the SERS plan are determined by the plan and made by the university. Fiscal 2019 pension contributions were a modest 1.1% of operating expenses, well below the public university median of 2.2%.

UMass participates in an OPEB program that is provided through the Commonwealth of Massachusetts. UMass' share of the net OPEB liability was reported at \$719 million for fiscal 2019.

ESG considerations

Environmental

According to Moody's affiliate, Four Twenty Seven, the university's campuses in multiple regions of Massachusetts have a range of medium and high exposure to water stress, extreme rainfall and hurricanes. Heat stress exposure is low. Sea level rise is a medium exposure at the UMass-Boston and UMass-Dartmouth campuses, while not a material risk for the inland campus locations.

Social

We regard the coronavirus outbreak as a social risk under our ESG framework, given the substantial implications for public health and safety. Campus' facilities were closed in spring 2020 and instruction pivoted to remote learning formats for the remainder of spring and all summer. For fall 2020, instruction remains remote for most classes and housing is limited to those with limited alternatives. UMass' current budget incorporates bringing all students on campus in the spring. Changes to this budget scenario will prompt midyear expense adjustments.

Challenging demographic trends are a primary social consideration for the UMass campuses. The university's ability to focus on tuition affordability for its students aids in a continuing pipeline of students to date, with the exception of the Dartmouth campus. We expect enrollment growth challenges to persist over the coming years.

Governance

Leadership's strong and improved oversight and budgetary controls, as well as cohesive road map strategies, are key strengths for UMass' multi-campus, multi-discipline enterprise. UMass is governed by a large 22-member board of trustees, of which 17 are appointed by the Governor of Massachusetts. All but the five student members are appointed for five-year terms and are eligible to be reappointed for an additional five-year term. Decisions regarding the university's campus expansions using public-private partnerships

and the plan for more significant online presence will be guided by a well-vetted strategic plan. Ongoing careful strategic capital budgeting will limit significant weakening of the university's outsized leverage.

Excellent strategic positioning incorporates the university's essential role for the state's educational and research priorities, and associated excellent capital support, bolstered by improved fiscal autonomy and stability in core revenue streams. Favorably, the system office has upgraded internal controls, developed specific reserve requirements among the campuses and is rolling out a shared services structure that will increase prospects for expense efficiencies. UMass is in the midst of sizable philanthropic and branding initiatives, which would favorably enhance financial reserves over the long term.

The university's budgeting flexibility is tempered by the presence of collective bargaining units and unions. Union contracts are negotiated by the state, though fiscal adjustments are often not fully covered by state funding, leaving the university to fill the budget gap. In addition, due to legal constraints, the university has been unable to expand liquidity access with lines of credit, an important budgeting tool during this period of uncertainty around coronavirus impacts. The university has been working to address this limitation with state legislators in the upcoming fall 2020 session.

Rating methodology and scorecard factors

The [Higher Education Methodology](#) includes a scorecard that summarizes the factors that are generally most important to higher education credit profiles. Because the scorecard is a summary and may not include every consideration in the credit analysis for a specific issuer, a scorecard-indicated outcome may or may not match an assigned rating. We assess strategic positioning on a qualitative basis, as described in the methodology.

Exhibit 3

University of Massachusetts, MA

Scorecard Factors and Sub-factors	Value	Score
Factor 1: Market Profile (30%)		
Scope of Operations (Operating Revenue) (\$000)	3,390,137	Aaa
Reputation and Pricing Power (Annual Change in Operating Revenue) (%)	0.7	Ba3
Strategic Positioning	Aa	Aa
Factor 2: Operating Performance (25%)		
Operating Results (Operating Cash Flow Margin) (%)	14.0	Aa2
Revenue Diversity (Maximum Single Contribution) (%)	41.2	Aa2
Factor 3: Wealth & Liquidity (25%)		
Total Wealth (Total Cash & Investments) (\$000)	2,023,664	Aa1
Operating Reserve (Spendable Cash & Investments to Operating Expenses) (x)	0.5	A1
Liquidity (Monthly Days Cash on Hand)	135	A1
Factor 4: Leverage (20%)		
Financial Leverage (Spendable Cash & Investments to Total Debt) (x)	0.5	A1
Debt Affordability (Total Debt to Cash Flow) (x)	7.0	Aa2
Scorecard-Indicated Outcome		Aa2
Assigned Rating		Aa2

Data is based on most recent fiscal year available. Debt may include pro forma data for new debt issued or proposed to be issued after the close of the fiscal year.

For non-US issuers, nominal figures are in US dollars consistent with the Higher Education Methodology.

Note: Leverage values reflect fiscal 2019 data incorporating new money debt from the Series 2020-1, 2020-2 and planned 2020-4 bonds, as well as principal amortizations during fiscal 2020. Total debt also includes privatized student housing public-private partnerships (PPPs).

Source: Moody's Investors Service

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Appendix D-2: S&P Rating Report – October 2020



RatingsDirect®

University of Massachusetts Building Authority University of Massachusetts; Public Coll/Univ - Unlimited Student Fees

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University of Massachusetts Building Authority University of Massachusetts; Public Coll/Univ - Unlimited Student Fees

Credit Profile

US\$321.36 mil rfdg rev bnds (University of Massachusetts) ser 2020-4 dtd 04/14/2020 due 06/30/2051

Long Term Rating

AA-/Negative

New

Massachusetts Development Finance Agency, Massachusetts

University of Massachusetts System, Massachusetts

Massachusetts Development Finance Agency (University of Massachusetts System)

Long Term Rating

AA-/Negative

Affirmed

Rating Action

S&P Global Ratings assigned its 'AA-' rating to the University of Massachusetts Building Authority's (UMBA) series 2020-4 revenue bonds, to be issued for the University of Massachusetts (UMass). At the same time, S&P Global Ratings affirmed its 'AA-' long-term rating and underlying rating (SPUR) on the university's revenue bonds previously issued by the authority and other issuers. In addition, we affirmed our 'AA-/A-1' rating on UMass' series 2008-1 bonds. The rating outlook is negative.

The bonds are secured by the system's pledge of all available funds, payable to the authority under the contract for management and services. We consider this equivalent to a general obligation pledge of the university system. While all the system's debt is on parity, we rate only a portion. In addition, we rate the commonwealth-guaranteed bonds, which amount to about \$111.5 million of the system's total debt.

In fiscal 2013, the authority approved a commercial paper (CP) program to help fund the system's capital plan. The program is authorized for \$200 million; as of June 30, 2020, there was outstanding balance on the program. The system plans to continue using this CP program. The rating on the CP program, consisting of the series 2013A-1 tax-exempt CP notes and series 2013A-2 federally taxable CP notes, is based on a State Street Bank and Trust ('AA-/A-1+') liquidity facility, and additional information can be seen in our report published June 16, 2020, on RatingsDirect. The 'AA-/A-1' rating on the series 2008-1 bonds reflects the long-term rating of the system and the short-term rating of Barclays, the liquidity provider.

The system plans to issue approximately \$321.4 million in series 2020-4 taxable bonds to refund about \$193.9 million of outstanding revenue bonds for interest savings and to restructure a roughly \$93.9 million principal payment coming due on Nov. 1, 2020, to create cash flow relief. As of June 30, 2020, the system had outstanding debt (including notes, capital lease, and CP) of approximately \$2.99 billion. Following this issuance, total pro forma debt will be approximately \$3.0 billion, according to the pro forma debt service schedule, and the pro forma maximum annual debt service (MADS) burden will be 6.4% of fiscal 2019 adjusted operating expenses. Based on the latest capital analysis, the system plans to issue up to \$450 million of additional debt in early 2022. We understand that management is still

evaluating the evolving environment and potential market opportunities for the possible debt issuance. Hence, the additional debt has not been incorporated into this analysis, given the lack of a firm timeline and debt issuance details.

Due to the outbreak of the COVID-19 pandemic, UMass transitioned to remote education in March 2020 and issued prorated refunds to students for room and board, resulting in a net impact on auxiliary revenue of approximately \$65.4 million. Auxiliary revenues historically made up approximately 11% of total operating revenues, which we view as manageable. Other lost revenue and increased expenses across campuses and the medical school resulted in an impact of \$48.7 million, bringing the total negative budget impact of COVID-19 to about \$114.1 million in fiscal 2020. Management made a concerted effort to offset \$76.5 million of this negative impact through expense savings and relief funding, and currently projects to end fiscal 2020 with a small full-accrual operating surplus, which we view favorably given the magnitude of the pandemic's effect.

UMass reports 65,669 students on a full-time-equivalent (FTE) basis as of Sept. 16, 2020, a drop of only 0.5% from the prior year's enrollment; we view this result as decent in the current environment. International students make up about 9% of total enrollment, and year-to-date enrollment is consistent with budgeted assumptions. For fall 2020, UMass is teaching most classes remotely, with the exception of some lab-based courses. Students, faculty, and staff accessing campus are regularly tested for COVID-19. Fall sports have a limited or delayed season. (For example, the Amherst football team is playing without spectators.) Based on current assumptions and management's decisive action plan for cost-cutting, the system currently budgets for a very modest operating deficit for fiscal 2021. However, we understand that the trajectory of the pandemic and its effect on operations and appropriations is uncertain, and management is preparing for a range of scenarios. While we recognize that these are unprecedented times, we acknowledge that UMass has taken prudent measures to address the situation. As part of the federal government's Coronavirus Aid, Relief, and Economic Security (CARES) Act stimulus funding, the university was allocated \$46 million, half of which was earmarked as direct aid to students, and the remainder to be used at the university's discretion during fiscal 2020 and 2021 to cover eligible costs. UMass also received an additional \$600,000 through federal funding from the CARES Act and \$3 million through the Governor's Emergency Education Relief Fund of the CARES Act. As of March 31, 2020, UMass has \$650 million in same-day liquid cash and cash equivalent investments, and \$140 million in fixed-income investments that can be liquidated in under 30 days. In addition, the system also has access to additional liquidity managed by the UMass Foundation in Fund 2 (\$330 million market value as of Feb. 29, 2020, with 50% of this available for same day withdrawal). The system has sufficient liquidity, in our view, to offset any short-term disruption. We believe the university system has adequately adopted contingency measures to help combat the spread of COVID-19, and we will continue to monitor the evolving situation.

Credit overview

We assessed the system's enterprise profile as very strong, characterized by growing enrollment despite a dip in fall 2020 driven by COVID-19, solid demand, and sound management and governance oversight, with comprehensive long-term strategic plans. We assessed the system's financial profile as strong, with historically positive and improving operating margins in recent years, although the fiscal 2021 budget currently calls for slightly negative operations due to the impacts of the pandemic, moderate revenue diversity, and growing support from the state, offset by the system's elevated debt load and significant capital plan, which pressure already-low available resources. We believe these credit factors, combined, lead to an indicative stand-alone credit profile of 'a+'. As our criteria indicate, the final rating can be

within one notch of the indicative credit level. In our opinion, the 'AA-' rating on the system's bonds better reflects the system's flagship role in Massachusetts' public higher education and the comprehensive nature of the system, including robust research programs and a strong online presence.

The ratings reflect our view of the system's:

- Leading role in Massachusetts' public higher education system, with geographically and academically diverse campuses located throughout the commonwealth;
- Historically healthy support by the commonwealth of Massachusetts;
- Consistently positive operating performance despite a modest deficit currently budgeted for fiscal 2021;
- Steady trend of enrollment growth with the exception of a small drop in fall 2020, with an acceptance rate at 72% that remains sound compared with our medians;
- Comprehensive program offerings including a law school and medical school, the system's healthy and growing level of research, and expansive and growing online education presence; and
- Experienced management team.

In our opinion, constraining credit factors include the system's:

- Elevated debt levels, which we expect will continue to pressure the balance sheet;
- Substantial remaining capital needs with additional debt plans through the next five fiscal years; and
- Low available resource levels, small endowment, and limited fundraising, though recent efforts have been successful.

The negative outlook reflects our expectation that the system's demand profile and financial operations could be pressured by the ongoing pandemic. In addition, the system's weak available resources provides limited flexibility at the current rating level, in our view, should operational pressures result in further balance sheet declines.

The University of Massachusetts, established in 1863, is a coeducational, state-supported institution with campuses in Amherst, Boston, Dartmouth, Lowell, and Worcester. It also includes UMassOnline. The campuses are geographically dispersed throughout the commonwealth, with complementary missions. The Amherst campus is the system's flagship and the largest based on headcount. UMass Amherst acquired the campus of Mount Ida College in 2018, following the college's closure, with the intent to capitalize on the campus' location to expand university-industry partnership and increase internship and career opportunities for its students in the greater Boston area. The Worcester campus is a graduate and professional campus housing the UMass School of Medicine, Graduate School of Biomedical Science, and the Graduate School of Nursing. The Dartmouth campus also houses the UMass School of Law. The Boston campus has traditionally been commuter only, but in recent years has shifted more toward residential. In June 2020, UMass announced the creation of a strategic partnership with Brandman University to expand its online education services for adult students, with no initial investments from the system. We will closely monitor the progress of the online initiative and evaluate if there will be potential impact to the system's assets and liabilities, general credit profile, and market position.

Environment, social, and governance (ESG) factors

We believe UMass faces elevated social risk due to the uncertainty surrounding the pandemic's duration and its total impact on the 2020-2021 academic year. We view the risks posed by COVID-19 to public health and safety as a social risk under our ESG factors. Despite elevated social risk, we consider the university system's environment and governance risks in line with our view of the sector as a whole.

Negative Outlook

Downside scenario

We could consider a negative rating action if available resources ratios were to decline materially relative to current levels, if there are sustained material operating deficits, if the system issues a significant amount of additional debt without commensurate growth in available resources, or if there is significant enrollment decline or weakening in demand metrics.

Return to stable scenario

We could revise the outlook to stable if the system maintains stable to growing enrollment and improves its operating margin to historical levels while maintaining available resources ratios at least at the current levels.

Credit Opinion

Enterprise Profile

Economic fundamentals

In our view, the system has moderate geographic diversity and is mostly regional. About 76% of all students hail from within the commonwealth. As a result, our assessment of the system's economic fundamentals is anchored by the Massachusetts GDP per capita.

Market position and demand

We consider the system's enrollment profile solid compared with those of its peers, historical trends, and 'AA' medians. The system's incremental growth both at the undergraduate and graduate levels is in line with prior projections, and management expects the growth to continue. Undergraduate enrollment growth continues to be a strategic priority, primarily at the Boston and Lowell campuses. As of Sept. 16, 2020, the system reported a fall 2020 FTE headcount of 65,669, which is a modest decline of only 0.5% from fall 2019. In fall 2019, undergraduate FTEs represented about 80.4% of FTE students, which was consistent with the past five years, and 17% of fall 2019 undergraduates were from out of state--a cohort the system continues to focus on growing. Amherst is the system's largest campus, with a total headcount of 31,350 students in fall 2019. Lowell is the next-largest campus, with a headcount of 18,338 in fall 2019. The smallest campus is the medical campus at Worcester, which had 1,234 students in fall 2019.

First-year demand weakened slightly this fall after years of stable and solid results relative to category medians, mainly due to the impacts of COVID-19. Applications for fall 2020 fell 4.9% from the prior year to 74,734 from 78,615 in fall 2019. Selectivity weakened moderately in fall 2020 to 72% after remaining generally steady over the past three years.

However, we still view this rate as sound for the rating category given the industry trend this year. The 20% matriculation rate for fall 2020 is slightly weaker than fall 2019's matriculation rate of 22% and reflects New England's highly competitive public and private higher education market. UMass has a strong transfer population, which management intends to maintain. However, UMass saw a significant decline in transfer applications this fall--17.5% from fall 2019--as did many schools. The acceptance rate for transfer applicants was 80%, compared with 70% in fall 2019. However, matriculation held steady at 58%. Approximately 3,953 students transferred to system institutions, which is approximately 6% lower than last year's transfer population. We note that all first-year and transfer/applications/acceptances/matriculation data is preliminary for fall 2020.

The system's admissions are open to residents and nonresidents on a competitive basis. Massachusetts residents accounted for a significant majority of both undergraduate and graduate students. We consider student quality, as measured by SAT scores, good; for fall 2019, incoming freshmen scores were in the 1091 to 1292 range. The retention rate (freshman-to-sophomore year) is not available for fall 2020, but the fall 2019 rate was above average at 83.4%, with some variation across campuses. The six-year graduation rate was also not available for fall 2020, but the fall 2019 rate improved to 70.7%. The system's mission remains access and affordability. For fall 2020, tuition and mandatory fees at the Amherst campus increased modestly to \$16,439 for in-state students and to \$36,427 for out-of-state students. Room and board charges at the Amherst campus were \$13,329. Management expects to maintain moderate tuition increases in the near future.

The system has a large and growing online program, which we believe adds overall revenue and program diversity. UMassOnline had 80,399 course enrollments for the 2018-2019 academic year (up 2.5% from the prior year) that generated tuition revenue of \$116 million, a 2.7% increase from fiscal 2018. In June 2020, UMass announced the creation of a strategic partnership with Brandman University, a nonprofit that specializes in online education for military, veteran, and adult students. We expect the partnership will further strengthen the online offerings by the system.

The system's fundraising efforts, like those of other New England public universities, have continued to lag those of the nation's other prominent public and private competitors. The system is building fundraising capacity across the five campuses and intends to enhance its advancement effort. UMass Amherst concluded a successful capital campaign in June 2016, raising \$379 million and surpassing its goal of \$300 million. UMass Boston also raised \$115 million at the end of its recent campaign, exceeding the goal of \$100 million. In addition, the Lowell and Worcester campuses recently closed their campaigns, which raised \$165 million and \$279 million respectively. The system collected gift commitments of about \$133.5 million in fiscal 2019, in line with recent years.

Management

On July 1, 2015, the system welcomed its 27th president, following a national search process. Marty Meehan is the first undergraduate alumnus to lead the system and most recently served as chancellor of UMass Lowell, following 14 years as a congressman in the U.S. House of Representatives. We understand that the transition was smooth, given President Meehan's familiarity with the system, and that the system's strategic vision continues to be very mission driven around access and affordability. The administration structure has a centralized office headed by a president, and each campus has a chancellor. Katherine Newman was named system chancellor for academic programs and senior vice president (SVP) of economic development in February 2020, after previously serving as the interim chancellor of

UMass Boston, SVP of the UMass system, and the provost of UMass Amherst. In addition, UMass Boston named a new chancellor, and UMass Dartmouth named a new chief operating officer and interim chancellor. UMBA also welcomed a new chief financial officer in 2020.

A board of trustees governs the system under the coordinating effort and authority of the commonwealth. The board has 22 members including three nonvoting members and 17 members appointed by the governor. Management reports board membership has been stable over the past year.

In light of the COVID-19 pandemic, the system has paid careful attention to oversight, internal controls, transparency, and risk management while pursuing a wide range of measures to control expenses. The system remains engaged in a number of strategic initiatives including a focus on operational efficiencies and lowering the cost of education delivery. The system has focused heavily on maintaining adequate liquidity in cash and investments, and has controlled expenses and generated revenues that have allowed for consistent operating surpluses for the past several years. The system is also enhancing the capital investment approval process, and is tracking and reporting on key performance metrics. In our opinion, the system's historical operating performance, good enrollment, and demand metrics, and professional management team focused on continuous improvement are credit strengths, but the system's balance sheet is weak and its debt load is aggressive, which remain offsetting rating factors.

The UMBA is the statutory entity through which the University of Massachusetts system finances its debt issuance and provides project management oversight until facilities are available for occupancy. The authority is an independent entity and has an 11-member board appointed by the governor.

Financial Profile

Financial management policies

The system has formal policies for endowment, investments, reserves, and debt. It operates according to actively managed strategic plans for each campus, as well as a systemwide centralized plan, which guides strategies around enrollment and programs, while emphasizing the unique qualities of each campus. The system meets standard annual disclosure requirements. The financial policies assessment reflects our opinion that, while there may be some areas of risk, the system's overall financial policies are not likely to weaken its future ability to pay debt service. Our analysis of financial policies includes a review of the system's financial reporting and disclosure, investment allocation and liquidity, debt profile, contingent liabilities, and legal structure, and a comparison of these policies with those of comparable institutions.

Operating performance

The system has a long history of positive operating surpluses. Fiscal 2019 operations resulted in an adjusted operating surplus of \$93.2 million (representing an operating margin of 2.5%), consistent with the fiscal 2018 surplus of \$74.9 million (operating margin of 2.1%), but in line with results from the previous few years. Our revenue adjustment includes audited operating revenue, state support, federal support, and gifts and endowment income, but excludes investment income. Our adjusted expenses include audited operating expenses and interest expense. Due to a reduction in revenues and unexpected expenses due to the pandemic, management projects a smaller operating surplus for fiscal 2020, compared with that of fiscal 2019, after implementing various cost containment measures. The

fiscal 2021 budget currently calls for break-even operations following management's concerted efforts to reduce expenses. However, management acknowledges that the pandemic's effect on operations for the remainder of the fiscal year remains highly uncertain.

The system participates in Massachusetts' fringe benefits programs, including health insurance, other postemployment benefits, and pension. Included in the system's financial statements and state-funded appropriation is an allocation to cover fringe benefit costs, which we view as a positive credit factor. In our view, the system has a strong research presence, with \$593 million in total grants and contracts for fiscal 2019, which increased from the prior year despite pressure on federal funding sources. Supporting research growth is a strategic priority of the system. The system's Amherst campus and medical school campus in Worcester have been the primary catalysts in the system's research funding growth. In addition, facility and computing capacity has been added at all the campuses, and the system plans future growth of its research capacity. The system has a partnership with Harvard, Massachusetts Institute of Technology, Northeastern, Boston University, and the private sector as part of a high-performance computing center that provides infrastructure to grow research capacity at the system.

While the commonwealth appropriations have increased in recent years, we expect a potential reversal of this trend in the near term because of state budgetary pressures due to the impacts of COVID-19. Management is conservatively budgeting for a 10% reduction in state appropriations in fiscal 2021. We view the history of strong funding as positive from a credit standpoint.

The system's fiscal 2019 revenue stream was moderately diverse, in our view, with commonwealth appropriations accounting for 20.7% of total adjusted revenue, grants and contracts accounting for 15.7%, and tuition, fees, and auxiliary enterprises accounting for 44.0%.

Available resources

In our view, the system's available resources relative to operating expenses are moderate for the rating category, but are low relative to pro forma debt. Fiscal 2019 Adjusted unrestricted net assets (UNA) of \$1.12 billion (which includes \$1.08 billion of system UNA, adjusted for the pension and other postemployment benefit liabilities, and \$37 million in foundation UNA) were equal to 30.5% of fiscal 2019 adjusted operating expenses. Fiscal 2019 adjusted UNA are low for the rating category from a debt perspective, at 34.8% of pro forma debt. Cash and investments of \$1.47 billion were equal to 39.8% of adjusted operating expenses and 45.5% of pro forma debt. In addition, we view the system's liquidity as sufficient with \$596 million (as of June 30, 2019) held in same-day cash or cash equivalents and additional cash of \$524 million available within one to 60 days. We expect the system's financial resource ratios to remain steady in the near term, with the expectation of continued, though modest, operating surpluses and limited plans for additional debt.

The endowment, held by the foundation, has a market value of \$1.04 billion as of June 30, 2020, based on unaudited fiscal 2020 financial results. For fiscal 2020, the system endowment return was 3.3%. Management reports there was little change to fiscal 2019's asset allocation, which was approximately 32.4% in equities, 55.4% in alternative investments, 6.8% in fixed income, and 2.6% in cash, and 2.8% in other. The spending policy for the foundation endowment fund is 4% of the endowment's average market value for the prior 12 quarters, with an actual spend rate typically below this level.

Debt and contingent liquidity

UMass' debt burden remains elevated compared with that of similarly sized and comprehensive universities, and it is higher than our medians for the rating category. Pro forma MADS in 2031 of \$234 million is above average, at 6.4% of fiscal 2019 adjusted operating expenses.

In our opinion, the high debt levels and elevated MADS burden remain a challenge, particularly as the system handles the impacts of the COVID-19 pandemic. Management reports no plan to issue debt again until January 2022, but is also carefully monitoring the market for opportunities. We believe the system's additional capital plans will continue to limit balance sheet growth. Nevertheless, we believe overall debt levels will remain manageable at the current rating because of university trustee policies that limit debt service to 10% of available revenues and internal policies that require the system debt burden to stay lower than 8% (including the Build America Bonds subsidy). In addition, debt service is conservatively somewhat front loaded, which we believe provides some flexibility.

Most of the system's debt is fixed rate. Approximately 13% of the system's debt is variable rate including the series 2008-A, 2008-1, 2011-1, 2011-2 bonds, and the Health and Education Facilities Authority/Massachusetts Development Finance Authority's series A bonds. The series 2008-A bonds, guaranteed by the state, are enhanced by a Barclays Bank PLC standby bond purchase agreement (SBPA), expiring July 6, 2022, and the bonds have been swapped through maturity. The series 2008-1 bonds are also enhanced by a Barclays Bank PLC SBPA, expiring July 6, 2022, and the bonds have been swapped through maturity. An SBPA with Wells Fargo Bank for the full amount enhances the series 2011-1 bonds, expiring Aug. 12, 2022, and the bonds have been swapped through maturity. The total notional amount of the three swaps is \$376 million, with UBS AG, Deutsche Bank AG, and Citibank NA serving as counterparties. The fair market value as of June 30, 2019, was \$34.3 million, though the authority has not had to post any collateral. The series 2011-2 bonds are seven-month window bonds, guaranteed by the state, that are not required to have liquidity support due to their structure; however, management considers the bonds supported by self-liquidity (the self-liquidity is not rated by S&P Global Ratings).

The system recently built a 1,000-bed freshman housing facility on time and within budget, through a 501c3 ownership structure on its Boston campus. In addition, UMass Dartmouth engaged into a 1,210-bed housing facility project through a 501c3 ownership structure. The associated debt for the two projects was approximately \$260 million, which we consider contingent debt of the system. The university's five-year capital plan from fiscal 2019 through fiscal 2023 totals about \$2.1 billion of projects, of which only approximately \$400 million remains to be financed and 81% is already underway. Based on the capital plan, we expect debt levels to remain elevated compared with those of the system's peers and the rating medians in the future, with potential for another issuance of \$400 million-\$450 million in early 2022. We expect that the system can absorb modest additional debt at the current rating level barring a significant decline in available resources or a material deterioration in the system's enterprise profile or operating performance.

UMass contributes to the Massachusetts state employees' retirement system, a cost sharing, multiple-employer, defined benefit pension plan administered by the state of Massachusetts. We understand that the pension plan funded status is approximately 66.3% in fiscal 2019, which we view as sufficient. Massachusetts sets its annual pension contribution based on its own methodology under state statute; it has not fully funded its annual required contribution since fiscal 2011, but currently plans to increase pension contributions 8.9% per year to fully amortize the unfunded

liability by 2036. UMass' contributions are currently at 1.68% of total adjusted operating expenses, which we believe is currently manageable. For more information on the plan, please see the state report published Feb. 14, 2020.

University of Massachusetts--Enterprise And Financial Statistics						Medians for 'AA' rated public colleges & universities
	--Fiscal year ended June 30--					
	2020	2019	2018	2017	2016	2018
Enrollment and demand						
Headcount	75,065	74,705	74,572	74,496	73,744	MNR
Full-time equivalent	66,003	65,346	64,530	63,978	63,333	35,846
Freshman acceptance rate (%)	67.3	66.7	64.8	62.3	61.5	67.8
Freshman matriculation rate (%)	21.8	21.8	21.4	21.4	22.5	MNR
Undergraduates as a % of total enrollment (%)	76.4	76.4	76.2	76.3	76.3	78.6
Freshman retention (%)	N.A.	84.3	85.8	85.4	85.5	86.0
Graduation rates (six years) (%)	N.A.	68.8	65.5	63.7	63.1	MNR
Income statement						
Adjusted operating revenue (\$000s)	N.A.	3,774,267	3,722,478	3,615,463	3,496,375	MNR
Adjusted operating expense (\$000s)	N.A.	3,681,032	3,647,614	3,547,308	3,477,974	MNR
Net adjusted operating income (\$000s)	N.A.	93,235	74,864	68,155	18,401	MNR
Net adjusted operating margin (%)	N.A.	2.53	2.05	1.92	0.53	1.50
Estimated operating gain/loss before depreciation (\$000s)	N.A.	369,873	336,281	313,455	259,266	MNR
Change in unrestricted net assets (UNA; \$000s)	N.A.	74,471	(766,837)	67,286	(41,967)	MNR
State operating appropriations (\$000s)	N.A.	780,221	751,894	720,817	669,748	MNR
State appropriations to revenue (%)	N.A.	20.7	20.2	19.9	19.2	19.2
Student dependence (%)	N.A.	44.1	43.0	42.5	41.6	39.7
Health care operations dependence (%)	N.A.	N.A.	N.A.	N.A.	N.A.	MNR
Research dependence (%)	N.A.	15.7	15.1	15.5	15.1	MNR
Endowment and investment income dependence (%)	N.A.	2.0	1.7	1.6	1.5	1.4
Debt						
Outstanding debt (\$000s)	N.A.	2,857,203	2,937,026	2,927,970	2,855,741	828,692
Proposed debt (\$000s)	N.A.	890,635	N.A.	N.A.	N.A.	MNR
Total pro forma debt (\$000s)	N.A.	3,257,758	N.A.	N.A.	N.A.	MNR
Pro forma MADS	N.A.	234,344	N.A.	N.A.	N.A.	MNR
Current debt service burden (%)	N.A.	6.54	6.09	6.64	5.52	MNR
Current MADS burden (%)	N.A.	6.13	6.25	6.52	6.41	3.50
Pro forma MADS burden (%)	N.A.	6.37	N.A.	N.A.	N.A.	MNR
Financial resource ratios						
Endowment market value (\$000s)	N.A.	948,195	842,858	792,278	707,246	990,083

University of Massachusetts--Enterprise And Financial Statistics (cont.)

	--Fiscal year ended June 30--					Medians for 'AA' rated public colleges & universities
	2020	2019	2018	2017	2016	2018
Related foundation market value (\$000s)	N.A.	615,356	587,055	548,451	449,966	688,435
Cash and investments (\$000s)	N.A.	1,465,536	1,356,594	1,167,620	1,058,908	MNR
UNA (\$000s)	N.A.	(75,609)	(150,080)	616,757	549,471	MNR
Adjusted UNA (\$000s)	N.A.	1,122,955	1,015,333	966,703	843,821	MNR
Cash and investments to operations (%)	N.A.	39.8	37.2	32.9	30.4	54.0
Cash and investments to debt (%)	N.A.	51.3	46.2	39.9	37.1	168.3
Cash and investments to pro forma debt (%)	N.A.	45.0	N.A.	N.A.	N.A.	MNR
Adjusted UNA to operations (%)	N.A.	30.5	27.8	27.3	24.3	35.3
Adjusted UNA plus debt service reserve to debt (%)	N.A.	39.3	34.6	33.0	29.5	97.8
Adjusted UNA plus debt service reserve to pro forma debt (%)	N.A.	34.5	N.A.	N.A.	N.A.	MNR
Average age of plant (years)	N.A.	11.9	11.8	11.6	11.2	13.0
OPEB liability to total liabilities (%)	N.A.	13.8	15.6	N.A.	N.A.	MNR

N.A.--Not available. MNR--Median not reported. MADS--Maximum annual debt service. Total adjusted operating revenue = unrestricted revenue less realized and unrealized gains/losses and financial aid. Total adjusted operating expense = unrestricted expense plus financial aid expense. Net operating margin = 100*(net adjusted operating income/adjusted operating expense). Student dependence = 100*(gross tuition revenue + auxiliary revenue) / adjusted operating revenue. Current debt service burden = 100*(current debt service expense/adjusted operating expenses). Current MADS burden = 100*(maximum annual debt service expense/adjusted operating expenses). Cash and investments = cash + short-term and long-term investments. Adjusted UNA = Unrestricted net assets + unrestricted net assets of the foundation. Average age of plant = accumulated depreciation/depreciation and amortization expense.

Related Research

Through The ESG Lens 2.0: A Deeper Dive Into U.S. Public Finance Credit Factors, April 28, 2020

Ratings Detail (As Of October 2, 2020)

Massachusetts Development Finance Agency, Massachusetts

University of Massachusetts System, Massachusetts

Massachusetts Development Finance Agency (University of Massachusetts) (FGIC) (National)

Unenhanced Rating AA-(SPUR)/Negative Affirmed

Massachusetts Dev Fin Agy (University of Massachusetts System)

Long Term Rating AA-/Negative Affirmed

Unenhanced Rating NR(SPUR) Current

Short Term Rating NR Current

University of Massachusetts Bldg Auth proj rev bnds sr (University of Massachusetts System) (Federally Tax)

Long Term Rating AA-/Negative Affirmed

Univ of Massachusetts Bldg Auth, Massachusetts

University of Massachusetts System, Massachusetts

University of Massachusetts Bldg Auth (University of Massachusetts System) proj and rfdg rev bnds

Ratings Detail (As Of October 2, 2020) (cont.)		
Long Term Rating	AA-/Negative	Affirmed
University of Massachusetts Bldg Auth (University of Massachusetts System) (AGM)		
Unenhanced Rating	AA-(SPUR)/Negative	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) rfdg rev bnds ser 2020-4 dtd 04/14/2020 due 11/01/2044		
Long Term Rating	NR	Current
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
Long Term Rating	AA-/Negative	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
Long Term Rating	AA-/Negative	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
Long Term Rating	AA-/Negative	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
Long Term Rating	AA-/Negative	Affirmed
Univ of Mass Bldg Auth (Univ of Mass Sys)		
Long Term Rating	AA-/A-1/Negative	Affirmed
Unenhanced Rating	NR(SPUR)	Current
Univ of Mass Bldg Auth (Univ of Mass Sys) PCU_USF		
Long Term Rating	AA-/Negative	Affirmed

Many issues are enhanced by bond insurance.

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Appendix D-3: Fitch Rating Report – October 2020



University of Massachusetts

New Issue Summary

Sale Date: Week of Oct. 5, 2020

Series: Series 2020-4 (Taxable)

Purpose: Refund and refinance existing debt.

Security: UMass revenue bonds are effectively secured by the gross unrestricted revenue of the university system and other legally available funds.

Analytical Conclusion

The 'AA' Issuer Default Rating (IDR) and revenue bond rating reflect UMass' role as the Commonwealth of Massachusetts' flagship public research system of higher education and the strong operating and capital support provided by the Commonwealth ('AA+/Stable'). The rating further reflects UMass' rigorous attention to managing cash flow needs in support of its material capital improvement program. The 'F1+' rating is consistent with the university's strong long-term credit profile and reflects ample reserves in support of its modest self-liquidity obligations.

The Stable Outlook reflects Fitch's expectation that UMass' financial and operating profile will remain resilient, with steady enrollment and a commitment to preserving a structural operating balance under the pressures of the pandemic in fiscal 2021.

The 2020-4 bonds are expected to price the week of March 25, 2020. The bonds will be issued as taxable, and proceeds will be used to refund the series 2013-1, 2013-2 and 2014-1 bonds as well as to refinance an existing bank loan related to the Amherst campus.

Key Rating Drivers

Revenue Defensibility: 'aa'; Steady Demand and Strong State Support: The 'aa' revenue defensibility assessment reflects UMass' steady enrollment trends over time versus the somewhat mixed demand characteristics inherent to a statewide public system. Enrollment in fall 2020 remains stable. The 'aa' assessment also reflects the consistent and solid support provided by the Commonwealth.

Operating Risk: 'aa'; Consistent Operating Performance; Meaningful Capital Improvement Plans: The 'aa' operating risk assessment is driven by very steady operating results, with cash flow expected to remain solid near current levels (13.8% in fiscal 2019) beyond pressures expected in fiscal 2021. UMass' systemwide operating and efficiency efforts are expected to support cash flow resilience in support of a robust ongoing capital improvement plan.

Financial Profile: 'aa'; Solid Financial Profile with Adequate Liquidity: UMass is expected to maintain liquidity against its debt and expenses at a level consistent with the 'aa' assessment. UMass had approximately \$1.7 billion in available funds at fiscal 2019, equal to nearly 50% of total expenses and 44% of adjusted debt. Leverage levels are projected to remain steady through Fitch's stress case scenario, inclusive of additional debt plans.

Asymmetric Additional Risk Considerations: No asymmetric additional risk considerations apply to UMass' ratings.

Ratings

Long Term Issuer Default Rating AA

New Issue

\$381,140,000 University of Massachusetts Building Authority Senior Project Revenue Bonds, Series 2020-4 (Taxable) AA

Outstanding Debt

Massachusetts Development Finance Agency (University of Massachusetts Issue) Revenue Refunding Bonds AA
Massachusetts Development Finance Agency (Worcester City Campus Corporation Issue - University of Massachusetts Project) Revenue Refunding Bonds AA
Massachusetts Health & Educational Facilities Authority (MA) (University of Massachusetts Issue) Variable Rate Demand Revenue Bonds AA/F1+
Massachusetts Health & Educational Facilities Authority (MA) (Worcester City Campus Corp. (WCCC) Issue - University of Massachusetts (UMass) Project) Fixed Rate Revenue Bonds AA
University of Massachusetts Building Authority (MA) CP Notes AA
University of Massachusetts Building Authority (MA) Senior Project & Refunding Revenue Bonds AA
University of Massachusetts Building Authority (MA) Senior Project Revenue Bonds AA
University of Massachusetts Building Authority (MA) Senior Refunding Revenue Bonds AA

Rating Outlook

Stable

Applicable Criteria

[U.S. Public Finance College and University Rating Criteria \(October 2020\)](#)

[Public Sector, Revenue-Supported Entities Rating Criteria \(March 2020\)](#)

Related Research

[Fitch Affirms University of Massachusetts Revs at 'AA'; Outlook Stable \(October 2020\)](#)

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Rating Sensitivities

Factors that could, individually or collectively, lead to positive rating action/upgrade:

- Continued favorable trend of revenue growth and prudent expense management, which translates into stronger cash flow and balance sheet strengthening would prompt upward rating consideration, particularly as available funds (AF) levels approach 80% of adjusted debt.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

- Failure to maintain steady leverage levels against expected increases in debt and capital needs may pressure the rating should AF-to-total-adjusted debt fall persistently below 30%.
- A sustained decline in operating performance to adjusted cash flow levels consistently below 12% could pressure the rating, particularly against UMass' sizeable expected capital improvement plan.
- Material erosion in internal liquid resources and/or significant downward movement in the university's long-term rating, while highly unlikely, would influence the short-term rating.

Credit Profile

UMass is the Commonwealth of Massachusetts' only public research university system. UMass was established in 1863 and encompasses five separate campuses at Amherst (its flagship campus), Boston, Dartmouth, Lowell and Worcester. The five campuses are geographically dispersed throughout the commonwealth and possess distinct and complementary missions. In fall 2019, the system enrolled 66,003 full time equivalent (FTE) students. In addition, UMass has systemwide online education (UMass Online), which in fiscal 2019 offered over 1,500 online and blended courses with nearly 150 certificate and degree programs.

The UMBA, the university's debt issuance arm (reported as a blended component unit of the university), is a public instrumentality of the Commonwealth and is empowered to construct dormitory, auxiliary, academic and other facilities for the university's campuses. Fitch does not view the UMBA as having any distinct operating risk from that of UMass, and thus there is no separate IDR assigned.

UMBA revenue bonds and commercial paper notes are special obligations of the UMBA payable by the university. Under a service contract between the university and UMBA, the university is required to remit to the authority annually an amount sufficient to pay debt service and other costs associated with operating and maintaining the financed projects during the next year, referred to as the certified amount. The annual certified amount is payable from a variety of revenue streams, including all legally available revenues of the university and UMBA, including state appropriations, as well as unrestricted net assets (UNA, defined as unrestricted fund accumulated surpluses, as well as quasi-endowment, unexpended plant fund, and unrestricted renewal and replacement fund).

Coronavirus Impacts

The ongoing coronavirus pandemic and related government-led containment measures create an uncertain environment for the U.S. public finance higher education sector. Fitch's forward-looking analysis is informed by management's expectations coupled with Fitch's common set of baseline and downside macroeconomic scenarios. Fitch's scenarios will evolve as needed during this dynamic period. Fitch's current baseline scenario incorporates the sharp economic contraction in 2Q20, with an initial bounce in 3Q20 followed by a slower recovery trajectory from 4Q20. For the higher education sector, the baseline case assumes the closure of most residential campuses for a three- to four-month period with continued sporadic closures through fall 2020. Rating sensitivities address potential rating implications under a downside scenario, which assumes slower economic recovery and prolonged or recurring disruptions related to the coronavirus into fiscal 2021, including enrollment and related revenue pressures for higher education.

Rating History

Rating	Action	Outlook/ Watch	Date
AA	Affirmed	Stable	9/29/20
AA	Affirmed	Stable	3/16/20
AA	Affirmed	Stable	12/18/19
AA	Affirmed	Stable	3/20/19
AA	Affirmed	Stable	1/23/19
AA	Affirmed	Stable	1/9/17
AA	Affirmed	Stable	5/2/14
AA	Affirmed	Stable	1/24/14
AA	Affirmed	Stable	8/2/13
AA	Affirmed	Stable	7/15/13
AA	Affirmed	Stable	4/9/13
AA	Affirmed	Stable	2/28/13
AA	Affirmed	Stable	10/21/11
AA	Affirmed	Stable	5/25/11
AA	Upgraded	Stable	10/13/10
AA-	Revised	Stable	4/30/10
A+	Affirmed	Stable	3/18/09
A+	Affirmed	Stable	6/18/08
A+	Affirmed	Stable	6/3/08
A+	Affirmed	Stable	3/27/08
A+	Affirmed	Stable	9/18/06
A+	Affirmed	Stable	3/27/06
A+	Affirmed	Stable	3/21/05
A+	Affirmed	Stable	1/31/05
A+	Affirmed	Stable	5/6/04
A+	Affirmed	Stable	7/22/03
A+	Affirmed	Stable	2/18/03
A+	Affirmed	Stable	5/10/02
A+	Affirmed	Stable	3/21/02
A+	Affirmed	Stable	5/11/01
A+	Affirmed	Stable	12/1/11
A+	Assigned	Stable	2/24/00

UMass shifted to a fully remote learning model effective March 16, 2020 and substantially vacated its university-owned residence halls and campus. UMass received \$46 million in Coronavirus Aid, Relief and Economic Security (CARES) Act proceeds, \$23 million of which was available for institutional use and partially offset room and board adjustments totalling approximately \$65 million. Fall 2020 courses have resumed in a mix of in-person, remote and hybrid structures, with remote learning as the predominant model.

Revenue Defensibility

UMass continues to draw solid student demand despite a challenging longer-term demographic picture. Enrollment has grown consistently near 1% annually for several years, supported in part by healthy out-of-state demand at the flagship Amherst campus. Enrollment is expected to remain within 1% of prior year in fall 2020, once final data is reported. UMass Online has helped support enrollment growth (over 65,000 full time equivalents and over 83,000 course enrollments in fall 2020, up from prior year). Student quality has remained steady to improving, with a consistently solid 85% retention rate of freshman students. Selectivity has also been steady, near 67% for freshman and 70% for transfers in fall 2019, and matriculation is somewhat light at just under 22% for freshman, though not unusual for a multi-campus public system.

UMass continues its work toward a new virtual college, announcing a strategic partnership with Brandman University (a nonprofit affiliate of Chapman University), which specializes in serving adult students in a primarily online format. A capital contribution is not currently contemplated; rather its anticipated to be structured as a strategic partner to help support UMass' goals in furthering continuing adult education needs.

Solid state support continues, despite some uncertainty regarding a final fiscal 2021 budget from the Commonwealth. Total commonwealth appropriations (including for fringe benefits) were about \$780 million in fiscal 2019, and the base appropriation for fiscal 2020 was steady at \$560 million over prior years' \$542 million. UMass' pooled endowment equaled about \$1 billion in fiscal 2020 (unaudited), and the university utilized a 4% spending distribution in fiscals 2019 and 2018.

Operating Risk

UMass' operating risk profile is assessed at 'aa' and characterized by diverse revenues and a stable trend of breakeven operations and consistent cash flow margin averaging near 12% over the last three fiscal years. The coronavirus pandemic had an \$114 million impact on fiscal 2020 results (unaudited) and UMass successfully adjusted its operations by \$77 million as an offset in order to achieve operating balanced. An interim fiscal 2021 budget was approved in July (to be used through October), which presumed a 4.9% enrollment loss (on which UMass is outperforming) as well as lower funding levels from the Commonwealth. With about \$291 million in operating adjustments in the works, including workforce reductions, furloughs, non-personnel expense reductions, UMass is committed to achieving balanced operations. In addition, capital projects are undergoing a new approval process, and UMass has identified \$222 million in previously approved projects to be put on hold.

UMass leadership continues to focus on sufficient and sustainable operations at each of its campuses, and as a system overall. Solid cash flow continues to be an important offset to UMass' sizable capital plans, and management will closely monitor its capital and debt levels on both a campus and system level. UMass' policy is to maintain debt service-to-total expenditures at no more than 8% by campus, which it has been largely successful at maintaining in recent years.

UMass generates consistent annual and solid campaign giving results in support of its strategic needs. Annual giving has been above \$115 million since fiscal 2014, and UMass also benefits from fairly stable state capital appropriation support (equal to \$25 million in fiscal 2019). UMass' robust \$1.8 billion five-year capital plan through 2025 will be funded from a combination of additional debt, fundraising, state support and internally.

Financial Profile

UMass' debt burden remains manageable and materially unchanged with the series 2020-4 refunding transaction, with no extension of current debt maturities. Current debt service

coverage (as Fitch calculates) was 2x in fiscal 2019, and debt service is slightly front-loaded, with over half of the principal amortizing within 15 years. Maximum annual debt service on the authority bonds will be approximately \$232 million, with final maturity in 2050. Some additional debt is likely and can be absorbed at the current rating as principal amortization will provide some additional capacity over the next few years. Fitch expects any future debt issuance to be accompanied by growth or maintenance of resources sufficient to cover debt service and maintain the current rating.

Total long-term debt equaled approximately \$3 billion at fiscal 2019, including approximately \$133 million in commercial paper (\$200 million maximum authorization) and \$295 million in VRDB's, which all have various standby bank purchase agreements with expirations in July and August 2022. UMass also has \$20 million in debt that is supported by self-liquidity, which Fitch rates 'F1+' given UMass' long-term credit quality and coverage from ample highly liquid resources. Overall, UMass maintains adequate balance-sheet resources, with steady available funds against expenses of 49%. However, AF is weaker against adjusted debt at just under 44%.

Debt equivalents totaled about \$780 million in fiscal 2019, in the form of non-cancellable operating leases and the Massachusetts State Employees Retirement System cost-sharing, multi-employer defined benefit pension plan liability. The pension obligation is the largest component of adjusted debt, reflecting UMass' reported \$409 million in net pension liability adjusted to a 6% discount rate (down from the 7.35% disclosed discount rate). The state provides support of a portion of UMass' fringe benefit costs, which equaled \$234.5 million net of the university's contribution of its portion.

Security

UMass revenue bonds are secured by a pledge of the university's gross unrestricted revenue and other legally available funds. The bonds and commercial paper notes are special obligations of the University of Massachusetts Building Authority (UMBA) payable from payments made by the university. Under a service contract between the university and UMBA, the university is required to remit to the authority annually an amount sufficient to pay debt service and other costs associated with operating and maintaining the financed projects during the next year, referred to as the certified amount. The annual certified amount is payable from a variety of revenue streams, including all legally available revenues of the university and UMBA, including state appropriations, as well as unrestricted net assets (UNA, defined as unrestricted fund accumulated surpluses, as well as quasi-endowment, unexpended plant fund, and unrestricted renewal and replacement fund).

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg

Financial Summary

(\$000, Audited Fiscal Years Ended June 30)	2016	2017	2018	2019
Unrestricted Operating Revenues				
Gross Tuition & Fees	1,070,840	1,136,540	1,184,932	1,223,749
Less: Student Aid	244,025	288,708	310,106	328,845
Net Tuition & Fees (\$000)	826,815	847,832	874,826	894,904
Sales & Services of Auxiliary Enterprises	383,281	400,822	416,733	441,795
Total Grants & Contracts	604,095	634,131	649,268	684,544
State Appropriations	669,748	720,817	751,894	780,221
Gifts & Contributions	42,415	26,253	39,022	43,705
Dividend & Interest Income	8,862	28,756	37,622	48,943
All Other Operating Revenues	551,944	526,897	480,106	385,962
Other Material (10%) Operating Revenue	119,931	113,950	136,159	137,607
Total Operating Revenue	3,207,091	3,299,458	3,385,630	3,417,681
Unrealized / Realized Gains Portion of Endowment Payout	24,740	26,877	26,742	27,741
Adjusted Total Operating Revenue	3,231,831	3,326,335	3,412,372	3,445,422
Unrestricted Operating Expenses				
Instruction	794,691	824,042	876,235	901,235
Academic Support	181,057	177,173	187,495	184,462
Institutional Support	248,379	247,740	271,535	269,126
Student Services	141,915	151,033	156,934	158,991
Public Service	481,563	413,958	403,454	310,387
Research	434,213	447,370	471,135	487,725
Auxiliary Enterprises	297,089	306,850	313,741	338,207
Student Aid	44,645	47,710	50,410	49,509
Operation & Maintenance of Plant	228,406	240,501	255,825	246,725
Depreciation	240,865	249,669	261,417	276,638
Interest Expense	105,276	110,069	115,851	116,217
All Other Operating Expenses	47,930	57,276	52,211	47,785
Total Operating Expense	3,246,029	3,273,391	3,416,243	3,387,007
Change in Net Assets from Operations	(38,938)	26,067	(30,613)	30,674
Adjusted Change in Net Assets from Operations	(14,198)	52,944	(3,871)	58,415
Unrestricted Non-Operating Revenues/(Expenses)				
Realized & Unrealized Gain (Loss) on Investments	(16,072)	36,744	13,724	31,549
Capital Appropriations	121,298	121,380	67,437	25,500
Capital Grants & Gifts	54,244	29,080	8,732	13,165
Other Non-Operating Expenses	(14,067)	(6,973)	(9,554)	(16,186)
Other Non-Operating Revenues	1,540	17,085	1,118	1,576
Total Non-Operating Revenue (Expense)	146,943	197,316	81,457	55,604

Note: Fitch may have reclassified certain financial statement items for analytical purposes.

Sources: Fitch Ratings, Fitch Solutions, University of Massachusetts (MA)

Financial Summary

(\$000, Audited Fiscal Years Ended June 30)	2016	2017	2018	2019
Adjusted Change in Net Assets from Operations	(14,198)	52,944	(3,871)	58,415
Add: Interest Expense	105,276	110,069	115,851	116,217
Add: Pension Expense	34,466	26,300	58,500	52,200
Add: Depreciation Expense	240,865	249,669	261,417	276,638
Add: Non-Cash OPEB Expense	—	—	48,579	18,463
Less: Pension Contribution	22,386	25,618	28,292	35,843
Cash Flow	344,023	413,364	452,184	486,090
Adjusted Change in Net Assets from Operations	(14,198)	52,944	(3,871)	58,415
Add: Interest Expense	105,276	110,069	115,851	116,217
Add: Pension Expense	34,466	26,300	58,500	52,200
Add: Depreciation Expense	240,865	249,669	261,417	276,638
Less: Total Proportionate Fitch-Adj Pension Service Cost	29,334	29,579	28,032	26,490
Cash Flow -- Adjusted	337,075	409,403	403,865	476,980
Current Debt Service	223,664	235,554	222,150	240,687
Pro Forma Maximum Annual Debt Service (MADS)	259,257	232,031	218,913	324,343
Balance Sheet - Assets				
Cash & Cash Equivalents	604,452	553,642	430,389	317,892
Investments	940,471	1,052,563	1,245,433	1,359,570
Total Cash & Investments	1,544,923	1,606,205	1,675,822	1,677,462
Property, Plant & Equipment, Net	4,615,776	4,854,110	5,075,476	5,164,200
Balance Sheet - Liabilities & Net Assets				
Fixed Rate Bonds Payable	2,410,272	2,492,231	2,447,485	2,313,245
Unhedged Variable Rate Bonds Payable	20,000	20,000	20,000	20,000
Hedged Variable Rate Bonds Payable	425,040	413,230	401,310	389,095
Total Bonds Payable	2,855,312	2,925,461	2,868,795	2,722,340
Capitalized Leases	598	592	2,262	1,836
Commercial Paper	—	—	65,969	132,810
Debt Equivalents	878,228	860,090	762,892	780,027
All Other Obligations	124,310	166,381	152,042	185,392
Total Other Obligations	350,049	425,083	457,105	565,637
Adjusted Debt	3,858,448	3,952,524	3,851,960	3,822,405
Unfunded Capital Commitments	—	—	35,151	55,696
Unrestricted Net Assets	549,471	616,757	(150,080)	(75,609)
Invested in Capital	2,013,966	2,208,370	2,288,599	2,343,872
Restricted Net Assets - Non-Expendable (Fitch-Adjusted)	18,384	27,443	28,022	28,617
Restricted Net Assets - Expendable (Fitch-Adjusted)	218,272	201,710	222,343	206,023
Total Net Assets	2,800,093	3,054,280	2,388,884	2,502,903
Balance Sheet - Resources & Liquidity				
Available Funds (AF)	1,526,539	1,578,762	1,647,800	1,648,845
Foundation Available Funds	—	—	140,015	22,585
Total Available Funds (University & Foundation)	1,526,539	1,578,762	1,787,815	1,671,430
Statement of Cash Flows				
Depreciation	240,865	249,669	261,417	276,638
Net Cash Generated (Used) in Operating Activities	(570,853)	(488,027)	(342,853)	(508,876)
Additions of PP&E/Capital Assets	191,039	105,493	487,912	382,048
Payments on Bonds Payable	78,287	120,353	96,325	103,170
Cash Paid for Interest	113,746	115,201	125,825	137,517
Pension Plans				

Total Pension Liability (TPL, AAL)	1,271,142	1,177,084	1,281,592	1,275,534
Fiduciary Net Position (FNP, AVA)	862,724	747,213	861,358	866,215
Fitch Adjusted Total Pension Liability (TPL, AAL)	1,605,453	1,484,303	1,521,250	1,473,242
Fitch Adjusted Net Pension Liability (NPL, UAAL)	742,728	737,090	659,892	607,027
Fitch Adjusted Ratio of Assets to Liabilities (FNP/TPL, AVA/AAL) (%)	53.7	50.3	56.6	58.8
Total Pension Expense	34,466	26,300	58,500	52,200
Actual Contributions	22,386	25,618	28,292	35,843
Total Pension Service Cost	25,117	25,376	28,031	26,490

Note: Fitch may have reclassified certain financial statement items for analytical purposes.
Sources: Fitch Ratings, Fitch Solutions, University of Massachusetts (MA).

Financial Ratios

(Audited Fiscal Years Ended June 30)	2016	2017	2018	2019
Revenue Diversity (% Adjusted Total Unrestricted Operating Revenues)				
Tuition	25.6	25.5	25.6	26.0
Student Fees (Tuition & Auxiliary Revenues)	37.4	37.5	37.9	38.8
Total Grants & Contracts	18.7	19.1	19.0	19.9
State Appropriations	20.7	21.7	22.0	22.7
Gifts & Contributions	1.3	0.8	1.1	1.3
Total Investment Return	1.0	1.7	1.9	2.2
Expense Ratios (% Total Unrestricted Operating Expenses)				
Instruction	24.5	25.2	25.7	26.6
Research	13.4	13.7	13.8	14.4
Operation & Maintenance of Plant	7.0	7.4	7.5	7.3
Depreciation	7.4	7.6	7.7	8.2
Interest	3.2	3.4	3.4	3.4
Capital Expenditures as % of Depreciation	79.3	43.0	186.6	138.1
Average Age of Plant (Years)	11.2	12.0	11.8	12.0
Financial Aid Ratios				
Tuition Discounting (%)	22.8	25.4	26.2	26.9
Net Tuition & Fees	826,815	847,832	874,826	894,904
Change in Net Tuition & Fees (%)	8.1	2.5	3.2	2.3
Net Tuition Revenue / FTE	13,055	13,252	13,557	13,695
Change in Net Tuition Revenue / FTE (%)	6.3	1.5	2.3	1.0
5-Year Net Tuition Revenue per FTE Enrollment CAGR (%)	5.1	3.6	2.9	2.6
Operating Performance Ratios (%)				
Adjusted Operating Margin	(0.4)	1.6	(0.1)	1.7
Cash Flow Margin -- Adjusted	10.4	12.3	11.8	13.8
Balance Sheet Ratios (%)				
Available Funds / Total Operating Expense	47.0	48.2	52.3	49.3
Available Funds / Total Long Term Debt	51.2	51.1	57.9	54.9
Available Funds / Adjusted Debt	39.6	39.9	46.4	43.7
Available Funds / MADS (x)	5.9	6.8	8.2	7.1
Leverage (Adjusted Total Unrestricted Operating Revenues Basis)				
Current Debt Service Coverage (x)	1.5	1.8	2.0	2.0
Current Debt Burden (%)	6.9	7.1	6.5	7.0
Pro Forma MADS Coverage (x)	1.3	1.8	2.1	2.1
Pro Forma MADS Burden (%)	8.0	7.0	6.4	6.8
Variable Rate Bonds as % of Total Bonds	15.6	14.8	14.7	15.0
Hedged Variable Rate Bonds as % of Total Bonds	14.9	14.1	14.0	14.3

Note: Fitch may have reclassified certain financial statement items for analytical purposes.
Sources: Fitch Ratings, Fitch Solutions, University of Massachusetts (MA).

Demand Summary

(Fall Semester of Fiscal Years Ended June 30)	2017	2018	2019	2020
Headcount				
Total Undergraduate Enrollment	56,861	56,824	57,069	57,364
Total Graduate	17,635	17,748	17,636	17,701
Total Headcount Enrollment	74,496	74,572	74,705	75,065
Total Undergraduate / Total Headcount Enrollment (%)	76.3	76.2	76.4	76.4
Full-Time Equivalent (FTE)				
Total FTE Enrollment	63,978	64,531	65,346	66,003
5-Year FTE Enrollment CAGR (%)	1.5	1.4	1.3	1.2
Admissions				
Freshman Applications	70,025	71,495	74,333	78,615
Freshman Admissions	43,604	46,334	49,584	52,895
Acceptance Rate (%)	62.3	64.8	66.7	67.3
Freshman Matriculants	9,343	9,925	10,832	11,530
Matriculation Rate (%)	21.4	21.4	21.9	21.8
Transfer Applications	9,971	9,980	10,900	10,302
Transfer Admissions	7,818	8,001	7,815	7,229
Acceptance Rate (%)	78.4	80.2	71.7	70.2
Transfer Matriculants	4,746	4,777	4,538	4,199
Matriculation Rate (%)	60.7	59.7	58.1	58.1
In-State Undergraduate Student (%)	82.3	82.6	83.5	83.2
Out-of-State Undergraduate Student (%)	17.7	17.4	16.5	16.8
Student Quality				
Freshmen SAT	1,120	1,172	1,183	1,182
Freshmen to Sophomore Year Retention Rate (%)	85.4	85.2	84.3	–
Six Year Graduation Rate (%)	63.7	65.5	68.8	–
Annual Undergraduate Cost of Attendance				
Tuition	14,590	15,030	15,406	15,791
Mandatory Fees	381	381	481	598
Room & Board	11,897	12,258	12,626	13,004
Total	26,868	27,669	28,513	29,393

Sources: Fitch Ratings, Fitch Solutions, University of Massachusetts (MA).

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Appendix D-4: Moody's Rating Report – March 2021



CREDIT OPINION

11 March 2021

 Rate this Research

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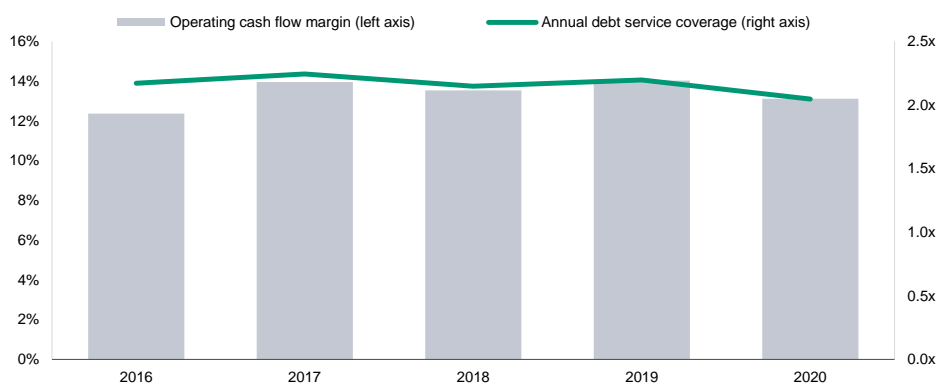
University of Massachusetts

Update to credit analysis

Summary

[University of Massachusetts](#)' (Aa2 stable) credit profile reflects its large scale and scope of operations, inclusive of the flagship and multiple campuses, its strong relationship with an academic medical center and its excellent strategic positioning that incorporates disciplined fiscal oversight. UMass benefits from solid operating and capital support from the [Commonwealth of Massachusetts](#) (Aa1 stable), significant research activity and growing net tuition revenue. In addition, institutional aid received from 2020 and 2021 federal aid packages of about \$209 million are instrumental in reimbursement of lost revenue. These factors will provide UMass with sufficient runway to manage through near-term operating volatility associated with the pandemic. UMass remains challenged by weaker spendable cash and investments to operations and debt at 0.5x and 0.5x, respectively, relative to peers, with continued capital needs and monitoring of two public-private partnerships. The university will continue to contend with historically modest philanthropic activity and expected declines in high school graduates in the university's core service area, though enrollment at most campuses remains healthy.

Exhibit 1

Steady operating performance and debt service coverage despite coronavirus disruptions in fiscal 2020


Source: Moody's Investors Service

Credit strengths

- » Important role in Massachusetts public higher education, with sizable multi-campus \$3.4 billion scope of operations, serving 66,070 full-time equivalent (FTE) students
- » Solid, consistent operating and capital support from Aa1-rated Massachusetts
- » Strong fiscal discipline and oversight leading to good operating cash flow margins and over 2x debt service coverage for fiscal 2020, with similar results projected in fiscal 2021
- » Steady enrollment, and growing net tuition revenue and research activity

Credit challenges

- » Low spendable cash and investments to debt and operations and modest fundraising relative to peers
- » Collective bargaining agreements and union contracts constrain expense flexibility
- » Moderately high debt burden and extensive capital needs, including managing rising investment in public-private partnerships
- » Highly competitive student demand and research funding environments

Rating outlook

The stable outlook reflects Moody's expectation of continuing steady enrollment and positive operating performance, continued solid state support, and modest additional debt.

Factors that could lead to an upgrade

- » Substantial growth of reserves relative to debt and operations
- » Sustained and material improvement of operating cash flow and debt service coverage

Factors that could lead to a downgrade

- » Sustained decrease in debt service coverage to below 2.0x including a decline in spendable cash and investments to debt below 0.4x
- » Reduction of state support for operations or capital

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody.com for the most updated credit rating action information and rating history.

Key indicators

Exhibit 2

University of Massachusetts, MA

	2016	2017	2018	2019	2020	Median: Aa Rated Public Universities
Total Fall FTE Enrollment	63,978	64,530	65,347	66,003	66,070	30,062
Operating Revenue (\$000)	3,219,260	3,289,330	3,365,547	3,390,137	3,408,595	1,282,865
Annual Change in Operating Revenue (%)	12.5	2.2	2.3	0.7	0.5	4.2
Total Cash & Investments (\$000)	1,483,807	1,655,974	1,885,013	2,023,664	2,048,544	1,582,410
Total Debt (\$000)	2,855,910	3,055,930	3,065,672	3,118,388	2,991,114	690,511
Spendable Cash & Investments to Total Debt (x)	0.4	0.4	0.5	0.5	0.5	1.5
Spendable Cash & Investments to Operating Expenses (x)	0.4	0.4	0.4	0.5	0.5	0.7
Monthly Days Cash on Hand (x)	92	119	139	135	123	157
Operating Cash Flow Margin (%)	12.4	14.0	13.5	14.0	13.1	11.8
Total Debt to Cash Flow (x)	7.2	6.7	6.7	6.6	6.7	4.1
Annual Debt Service Coverage (x)	2.2	2.2	2.1	2.2	2.0	2.8

Source: Moody's Investors Service

Profile

University of Massachusetts is a large public university system serving the Commonwealth of Massachusetts. The system includes five campuses: Amherst (flagship), Boston, Dartmouth, Lowell, and Worcester (medical school); and UMass Online. Included in UMass' operations is Commonwealth Medicine, a public, nonprofit healthcare consulting organization. Fiscal 2020 operating revenue was \$3.4 billion and fall 2020 enrollment was 66,070 full-time equivalent (FTE) students.

The University of Massachusetts Building Authority, the university's debt issuance arm, is a public instrumentality of the Commonwealth of Massachusetts and is empowered to construct dormitory, auxiliary, academic and other facilities for the university's campuses. The authority's financial data is consolidated within the university's audited financial statements as a blended component unit.

Detailed credit considerations

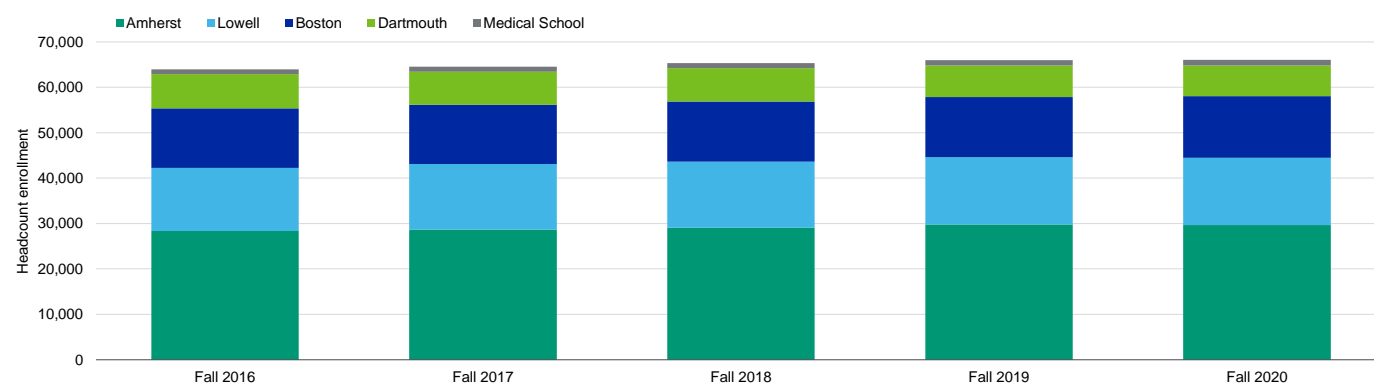
Market position: sound demand as large, diversified public higher education system

The University of Massachusetts' student demand will remain sound because of its role as an essential provider of public higher education across multiple campuses, including the state's flagship public university, with sizable scale and scope of operations.

Exhibit 3

Steady enrollment across the largest campuses

Fall enrollment, by campus



Source: Moody's Investors Service

Overall enrollment across the UMass campuses, based on final census numbers for fall 2020, was up a modest 0.1%, which was more favorable than the budgeted 5.0% decrease. All of the UMass campuses remained in remote learning delivery modes for fall 2020 and spring 2021 with certain exceptions for on-campus instruction (primarily in-person labs).

The university's initiative for increasing its online capacity and presence will grow with its announced June 2020 partnership with Brandman University, a California-based nonprofit online provider that was a component of [Chapman University](#) (A2 stable). Brandman currently provides online educational services to approximately 24,000 students, including a range of adult learners. UMass expects that the final terms of the strategic partnership with Brandman will be agreed upon by spring 2021. The ultimate credit impact will depend on the successful integration of the entities, which will occur over time.

University of Massachusetts maintains a sizable research profile, which enhances its reputation and revenue diversity. Research activity, totaling \$486 million in fiscal 2020 (14.5% of expenses), is concentrated at the Amherst and Worcester campuses in biomedical, applied materials and sustainability areas.

Operating performance: management's financial accountability framework underpins steady operations despite significant business disruptions

UMass will continue to face challenges stemming from disruptions of the coronavirus pandemic, but disciplined fiscal oversight, planned expense reductions and careful use of federal aid relief will limit significant adverse impact to operating performance. Historically strong and consistent state operating appropriations, comprising 24% of fiscal 2020 revenue, in addition to solid capital support, contribute to the university's excellent credit quality and also link the university closely to the state's credit quality. State support for a portion of increased salary costs associated with collective bargaining units is favorable to the university's credit profile.

Across the \$3.4 billion enterprise, the fiscal 2020 operating cash flow margin was a sound 13.1% providing 2.0x debt service coverage. Solid 5.7% year over year growth in net tuition revenue helped mitigate the roughly 18% decline in auxiliary revenue due to closure or reduction of housing, dining, parking and athletic operations. Direct federal aid from the April 2020 CARES Act totaled \$46.6 million, which included \$23 million for students. Only \$13.9 million was allocated in fiscal 2020 and the remainder will be allocated in fiscal 2021.

Fiscal 2021 operations remain pressured due to lower auxiliary revenue and higher than budgeted COVID-19 expenses, though the retraction of the state's 10% operating appropriation cut and higher enrollment than budgeted help mitigate the budget gap, and poise the university for better than balanced operations. The university received \$76 million from the December 2020 authorized federal relief aid, which will be allocated to students and university approved needs over fiscal years 2021 and 2022. Another \$134 million, with nearly half for institutional needs, is included in the March 2021 America Rescue Plan Act.

Wealth and liquidity: steady growth, but still below peer levels

The system's financial reserve levels, while adequate, will remain below peer levels when compared to both debt and operations. Donor-supported reserve growth is modest relative to peers, with capital campaigns decentralized among the campuses. Improved philanthropic activity would bolster growth in cash and investments, complementing stable operating cash flow and favorable focus to rebuild reserves.

Cash and investments totaled \$2.0 billion for fiscal 2020, up solid 38% over fiscal 2016. Fiscal 2020 spendable cash and investments of \$1.57 billion covered operating expenses by 0.5x, less than the Aa2-median of 0.7x.

Favorably, management projects nearly similar levels of cash and investments relative to operating expenses for fiscal 2020, reflecting no use of reserves for operations. Current fiscal 2021 budget projections limit use of reserves or liquidity to balance operations.

University and UMass Foundation assets are managed by the foundation board, with oversight from a chief investment officer and assistance from a third party advisor. The combined endowment of \$1.0 billion at fiscal end June 30, 2020 was up 3.3% for the one year period. Assets allocation is in line with similarly rated peers.

Liquidity

UMass' liquidity relative to operating expenses is modest relative to Aa2-rated peers, but generally improving based on its reserve policy. Monthly liquidity of \$1.0 billion translated to 123 monthly days cash on hand for 2020, improved from the 92 days recorded

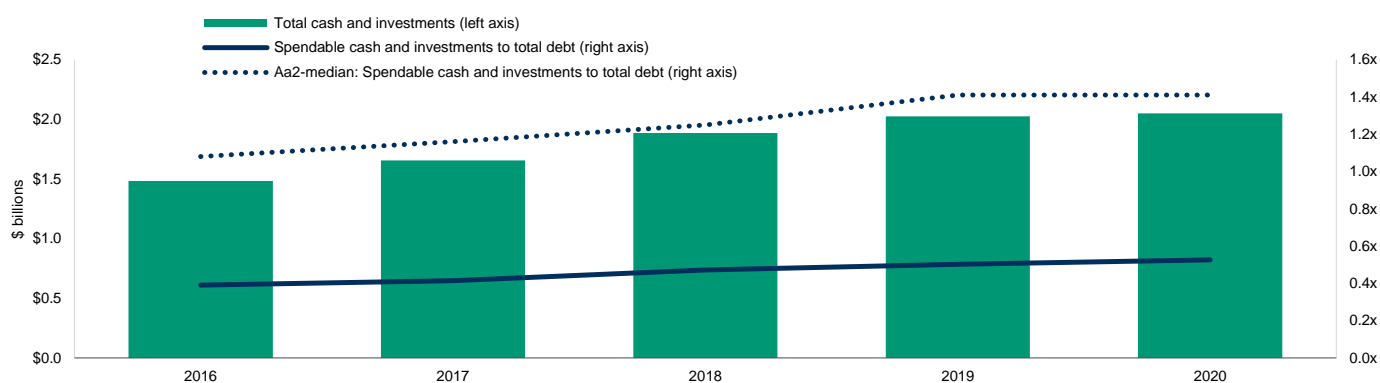
for fiscal 2016. Recent changes in allocations of available reserves toward longer term yield producing investments will decrease the pace of liquidity growth. Further, UMass is in the process of establishing a \$150 million revolving line of credit (see Debt Structure) to provide seasonal liquidity needs. Though monthly liquidity is less than the Aa2-median of 164 days, relatively stable operating performance, a mostly fixed rate debt portfolio and limited other expected calls on liquidity mitigate unexpected liquidity use.

Leverage: elevated leverage and ongoing capital needs, but measured pace of debt issuance

The university's leverage is elevated relative to rated peers, but will remain manageable due to consistency of operating performance and prudent capital planning. With lower wealth levels than peers, spendable cash and investments covered fiscal 2020 debt of \$3.0 billion by just 0.5x, well below the Aa2-rated median of 1.3x. Favorably, the university maintains a debt policy such that aggregate debt service will not exceed 8% of expenditures and projects remaining at or below 7% through fiscal 2025. The system also has strong management oversight for its detailed capital planning and approval process that fully integrates campus master plans and five-year forecasts.

Exhibit 4

Rising wealth is one mitigant to high financial leverage



Fiscal 2019 Aa2-median is used as a proxy in fiscal 2020.

Source: Moody's Investors Service

The fiscal 2021-25 capital plan totals \$1.8 billion. Though borrowing plans and timing are not currently firm, the system expects to eventually issue up to about \$434 million. Favorably, the state has been an important capital funding partner, providing \$387 million in capital appropriations over the fiscal 2016-20 period. Additional capital funding is derived from operating cash flow, future debt, gifts and third party developers. With the exception of the refunding of the November 1, 2020 principal payment for cash flow relief due to coronavirus-related business disruptions, UMass makes principal payments of roughly \$100 million annually.

The university has agreements with third party developers to operate student housing projects. Outstanding debt associated these projects at the [UMass-Boston](#) and [UMass-Dartmouth](#), totaling \$261.3 million, are included in UMass' adjusted debt. The holders of the privatized student housing bonds do not have legal recourse to the assets and revenue of UMass. The UMass-Boston and UMass-Dartmouth projects were open for fall 2020 and spring 2021, but with very limited occupancy because classes are virtually all online. To date, the university and campuses have not provided any funding to the project owners to offset revenue reductions. Planning around a third PPP at the Amherst campus for housing projects has been temporary halted because of coronavirus-related priorities.

Legal security

The bonds and commercial paper notes are special obligations of the University of Massachusetts Building Authority (UMBA) payable from payments made by the university under a Contract for Management and Services. Under the contract between the university and UMBA, the university is required to remit to the authority annually an amount sufficient to pay debt service and other costs associated with operating and maintaining the financed projects during the next year, referred to as the Certified Amount. The annual certified amount is payable from a variety of revenue streams, including all legally available revenues of the university and UMBA, including state appropriations, as well as unrestricted net assets. For fiscal 2020, spendable cash and investments totaled \$1.57 billion relative to the certified amount of \$237 million in fiscal 2020 and \$246 million for fiscal 2021.

Tender features of the university's Series 2011-1 variable rated bonds are supported by a standby bond purchase agreement (SBPA) with Wells Fargo Bank, N.A., which expires on August 12, 2022. The Series 2013B CP notes are supported by an SBPA with U.S. Bank National Association, that expires August 12, 2022.

Debt structure

Favorably, debt is predominantly fixed rate with regular amortization. The university is planning a bond issuance (Series 2021-1 and 2021-2) that is expected to refinance all outstanding variable rate debt and terminate swaps. A manageable 10% of the university's fiscal 2020 debt was issued in a variable-rate mode, and much of it is swapped to fixed interest rates. At fiscal end 2020, the university's unrestricted monthly liquidity covered demand debt a good 2.6x.

Liquidity facilities and swaps are well diversified across different counterparties. Tender features of the university's Series 2011-1 variable rated bonds are supported by a standby bond purchase agreement (SBPA) with Wells Fargo Bank, NA which expires on August 12, 2022.

The university has two commercial paper programs with a combined \$200 million authorization. The Series 2013A CP notes are supported by an SBPA with State Street Bank and Trust Company and the Series 2013B CP notes are supported by an SBPA with US Bank NA. Both CP note SBPAs expire on August 12, 2022. Moody's does not rate the Series 2013A CP notes. The 2013-A1 CP had a balance of \$31 million as of March 11, 2021.

UMass is planning to open a \$150 million revolving line of credit, which is expected to close in April 2021. The university's ability to open this line is the result of a legislative amendment that will allow borrowing for working capital. Management reports that it intends to use the line as a source of cash flow during the year and will pay off during each year, which is a condition of the amendment. The principal amount cannot exceed 8% of the university's approved operating budget. Renewal options allow for additional one year terms.

Debt-related derivatives

The university has three interest rate swaps in place to hedge the interest rates of its variable rate debt. The counterparties are Citibank NA, UBS AG and Deutsche Bank AG. Under the swaps, the authority is not required to post collateral at its current rating level. The counterparties can terminate the swaps if the authority's long-term unsecured senior debt rating is withdrawn, suspended or falls below Baa2 (or the equivalent from another credit rating agency). As of February 26, 2021, the swaps had a combined notional value of \$358.4 million and a combined mark to market swap liability of \$57.1 million.

Pensions and OPEB

The university has moderate exposure to additional debtlike obligations through its participation in the Massachusetts State Employees Retirement System (SERS), which is a cost sharing multiple-employer retirement plan sponsored by the state. The Moody's three-year adjusted net pension liability (ANPL) for the university is \$1.3 billion, and combined with other debt-like obligations and direct debt, represents 1.3x operating revenue for fiscal year 2020, nearly on par with the Aa2-rated public university median of 1.4x. Pension contributions for those in the SERS plan are determined by the plan and made by the university. Fiscal 2020 pension contributions were a modest 1.4% of operating expenses, well below the public university median of 2.2%.

UMass participates in an OPEB program that is provided through the Commonwealth of Massachusetts. UMass' share of the net OPEB liability was reported at \$993 million for fiscal 2020.

ESG considerations

Environmental

Environmental considerations are not a key credit driver. According to Moody's affiliate, Four Twenty Seven, the university's campuses in multiple regions of Massachusetts have a range of medium and high exposure to water stress, extreme rainfall and hurricanes. Heat stress exposure is low. Sea level rise is a medium exposure at the UMass-Boston and UMass-Dartmouth campuses, while not a material risk for the inland campus locations. UMass' commitments to ensuring safe infrastructure, demonstrated by the renovation of the inadequate structure at the UMass-Boston campus, and maintenance of insurance policies and safety procedures, are mitigate elevated environmental risks.

Social

Challenging demographic trends are a primary social consideration for the UMass campuses. The university's ability to focus on tuition affordability for its students aids in a continuing pipeline of students to date, with the exception of the Dartmouth campus. We expect enrollment growth challenges to persist over the coming years.

We regard the coronavirus outbreak as a social risk under our ESG framework, given the substantial implications for public health and safety. For spring 2021, instruction remains remote for most classes and housing is limited to those with limited alternatives.

Governance

Excellent strategic positioning incorporates the university's essential role for the state's educational and research priorities, and associated excellent capital support, bolstered by improved fiscal autonomy and stability in core revenue streams. Favorably, the system office has upgraded internal controls, developed specific reserve requirements among the campuses and is rolling out a shared services structure that will increase prospects for expense efficiencies. UMass is in the midst of sizable philanthropic and branding initiatives, which would favorably enhance financial reserves over the long term.

Rating methodology and scorecard factors

The [Higher Education rating methodology](#) includes a scorecard that summarizes the factors that are generally most important to higher education credit profiles. Because the scorecard is a summary and may not include every consideration in the credit analysis for a specific issuer, a scorecard-indicated outcome may or may not match an assigned rating. We assess strategic positioning on a qualitative basis, as described in the methodology.

Exhibit 5

University of Massachusetts, MA

Scorecard Factors and Sub-factors	Value	Score
Factor 1: Market Profile (30%)		
Scope of Operations (Operating Revenue) (\$000)	3,408,595	Aaa
Reputation and Pricing Power (Annual Change in Operating Revenue) (%)	0.5	Ba3
Strategic Positioning	Aa	Aa
Factor 2: Operating Performance (25%)		
Operating Results (Operating Cash Flow Margin) (%)	13.1	Aa2
Revenue Diversity (Maximum Single Contribution) (%)	40.3	Aa2
Factor 3: Wealth & Liquidity (25%)		
Total Wealth (Total Cash & Investments) (\$000)	2,048,544	Aa1
Operating Reserve (Spendable Cash & Investments to Operating Expenses) (x)	0.5	A1
Liquidity (Monthly Days Cash on Hand)	123	A1
Factor 4: Leverage (20%)		
Financial Leverage (Spendable Cash & Investments to Total Debt) (x)	0.5	A1
Debt Affordability (Total Debt to Cash Flow) (x)	6.7	Aa2
Scorecard-Indicated Outcome		Aa2
Assigned Rating		Aa2

Data is based on most recent fiscal year available. Debt may include pro forma data for new debt issued or proposed to be issued after the close of the fiscal year.

For non-US issuers, nominal figures are in US dollars consistent with the Higher Education Methodology.

Source: Moody's Investors Service

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CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Appendix E: UMass Accountability



UMass Accountability Matrix

Report	Frequency	Primary Report Audience:	Required by (site of statute or Board Policy)	UMass Department Lead	Reported To: Executive Branch Agencies	Reported To: Legislature	Reported To: UMass Specific	Reported To: "Other" Entities (specify)	Link to Latest Report
Academic Quality Assurance and Development (AQAD)	annual	BOT		Academic Affairs			BOT		
Periodic Multi-year Review	annual	BOT		Academic Affairs			BOT		
Fall Course File	annual	BOT		Academic Affairs	DHE		BOT		https://www.umassp.edu/aasair/institutional-research/annual-publications
Fall Student File	annual	BOT		Academic Affairs	DHE		BOT		https://www.umassp.edu/aasair/institutional-research/annual-publications
Fall Enrollment File	annual	BOT		Academic Affairs	DHE		BOT		https://www.umassp.edu/aasair/institutional-research/annual-publications
Financial Indicators Peer System Ratio Analysis	annual	BOT	N/A	Budget			BOT		Not on website
Financial Aid Report	annual	BOT	N/A	Budget			BOT		https://www.umassp.edu/budget-office/annual-budget
Sustainability Report	annual	BOT	N/A	Budget			BOT		https://www.umassp.edu/budget-office/sustainability
Housing Report	ad hoc	BOT	N/A	Budget			BOT		Not on website
Quarterly Capital Report	quarterly	BOT	Board Policy T93-122	Budget			BOT		Not on website
Tuition & Fee Schedules	annual	BOT	Board Policy T92-031	Budget			BOT		Campus Bursar's Websites
5-Year Financial Projection	annual	BOT	N/A	Budget			BOT		Not on website
Annual Procurement Spending	annual	BOT	Board Policy T92-031	Budget			BOT		Not on website
EEO Affirmative Action Reporting	annual	BOT	T94-054	Human Resources			BOT	Federal	Not on website
Annual Indicators Report	annual	BOT	Board Policy T97-111	Institutional Research	ANF DHE	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umassp.edu/aasair/institutional-research/annual-publications
IPEDS - Amherst	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitid=acb1b1a1b4&action=download
IPEDS - Boston	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitid=acb1b1a1b3&action=download
IPEDS - Dartmouth	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitid=acb1b2b4b3b2&action=download
IPEDS - Lowell	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitid=acb1b1b0acae&action=download
IPEDS - Medical	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitid=acb1b1b2abb3&action=download
IPEDS - Central	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitid=acb1b1b1b0&action=download
Quarterly Operating Budget Reporting	quarterly	BOT		Budget			BOT		Not on website
Student Profile	annual	BOT	Board Policy T97-111	Institutional Research			BOT		https://www.umassp.edu/aasair/institutional-research/annual-publications
Degrees Conferred Data File	annual	BOT		Institutional Research	DHE		BOT		
UMASS Facts	annual	BOT		Institutional Research			BOT		https://www.umassp.edu/aasair/institutional-research/annual-publications
Federal Audits	On-going	Federal		Audit	Auditor		BOT	Federal	
A-133 Report on Federal Financial Assistance	annual	Federal	OMB - A-133	Controller	Comptroller		BOT	Federal	https://www.umassp.edu/controller/reports
Clery Act Reporting	annual	Federal	Federal Title 20, Section 28	Emergency Mgmt			BOT	Federal	
NSF Research & Development Expenditures at Universities & Colleges	annual	Federal		Institutional Research			BOT	Federal	https://www.umassp.edu/aasair/institutional-research/annual-publications
Dept. of Education eZ-Audit	annual & as required	Federal					BOT	Federal	
Export Control Compliance - CRD Registration	annual	Federal		Academic Affairs				Federal	
Department of Defense - Certificates Pertaining to Foreign Interests	annual	Federal						Federal	

Report	Frequency	Primary Report Audience:	Required by (site of statute or Board Policy)	UMass Department Lead	Reported To: Executive Branch Agencies	Reported To: Legislature	Reported To: UMass Specific	Reported To: "Other" Entities (specify)	Link to Latest Report
SEVIS Report	Each Term/As required	Federal						Federal	
Internal Audits	On-going	Internal		Audit	Auditor		BOT		Not on website
University Disclosure Document (Appendix A)	annual	Rating Agencies	Bond Documents	Budget				Rating Agencies	Not on website
Quarterly Liquidity Disclosure	quarterly	Rating Agencies	Bond Documents	Budget				Municipal Securities Rulemaking Board	http://emma.msrb.org/ER916383-ER715908-ER1117347.pdf
State Auditor Activity	On-going	State		Audit	Auditor		BOT		
Quarterly Reserve Reporting	quarterly	BOT	Board Policy T94-018A	Controller			BOT		Not on website
State Budget Request (Official)	annual	State	MGL C.15A, S.15B	Budget	ANF EOE DHE	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umass.edu/budget-office/annual-budget
FY State Spending Plan Update	annual	State		Budget	ANF				Not on website
EOHHS Financial Aid Claim to TANF	twice annual	State	N/A	Budget	EOHHS				Not on website
BHE Waiver Report	annual	State	N/A	Budget	DHE				DHE database
BHE Tuition & Fee Report	annual	State	N/A	Budget	DHE				http://www.mass.edu/datacenter/tuition/AppendixTuitionFeesWeight7.asp
General Purpose Financial Statements/External Audit	annual	State	State Comptroller, Bond Documents	Controller	Comptroller	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umass.edu/controller/reports
MMARS - Revenue & Expenditure report for all non-appropriated funds	monthly	State	N/A	Controller	Comptroller				
MMARS -- Biweekly payroll for all state and non-state funded employees	biweekly	State	N/A	Controller	Comptroller				
Preliminary Admissions and Enrollment Data	annual	State		Institutional Research	DHE		BOT		
Annual HEFA Assurance Disclosure	annual	State			ANF				Not on website
Operating Budget	annual	Strategic Planning	Board Policy T92-031	Budget	ANF EOE	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umass.edu/budget-office/annual-budget
Capital Plan	annual	Strategic Planning	Board Policy T93-122	Budget	ANF DCAMM	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umass.edu/budget-office/capital-planning
Debt Affordability Analysis	annual/as required	Strategic Planning	Board Policy T09-050	Budget	ANF				Included in Financial Projection and Capital Plan
Efficiency & Effectiveness Report	annual	Strategic Planning	N/A	Budget		W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umass.edu/reports-and-initiatives/efficiency-and-effectiveness
UMA - Strategic Plan		Strategic Planning		Campus			President / BOT		https://www.umass.edu/planning/2018-2023-strategic-plan
UMB - Strategic Plan		Strategic Planning		Campus			President / BOT		https://www.umb.edu/the-university/strategicplan/fulfilling-the-promise
UMD - Strategic Plan		Strategic Planning		Campus			President / BOT		https://www.umassd.edu/strategicplan/
UML - Strategic Plan		Strategic Planning		Campus			President / BOT		http://www.uml.edu/2020/
UMMS - Strategic Plan				Campus			President / BOT		http://www.umassmed.edu/fmch/strategicplan/
Office of State Financial Assistance Audit	annual				DHE				
Student Financial Aid File	annual								
Chapter 647 Massachusetts Internal Control Law Reporting	monthly & as required				Auditor		BOT		
Sightlines Deference Maintenance Reporting	annual	BOT		Campus	DCAMM		BOT		Not on website

Appendix F: Appendices to UMass Efficiency & Effectiveness Section

F-1. Methodologies & Definitions

F-2. UPST E&E Project Listing



Appendix F-1: Methodologies & Definitions



Savings Calculation Methodology

$$\text{Cost Savings} = \text{Cost Reduction} + \text{Cost Avoided}$$

Unified Procurement Services Team Procurement Savings Calculation Method since Nov. 2019

Cost Reduction*

- a. Cost reduction from competitive sourcing (1st year)
- b. Cost reduction from negotiations (1st year)
- c. Reduction in amount of goods/services used

Cost Avoided*

- a. Cost avoidance from competitive sourcing (future years)
- b. Cost avoidance from negotiations (future years)
- c. Cost avoidance from in-contract intervention
- d. Reduction in rates for goods/services

* Definitions in Appendix

UPST Savings Definitions

Cost Reduction

- **Procurement Cost Reduction** – A cost reduction opportunity that is generated from the competitive bidding process (first year only). Baseline (market) Spend minus Actual Spend
- **Negotiated Cost Reduction** – An avoided cost as a result of the issuance of Best and Final Offers, Sole-Source negotiations, or post-procurement/post-award negotiations (first year only). Baseline (market) Spend minus Actual Spend
- **Volume Reductions** – Reducing the amount of a good or service used. Cost reduction captured in this category includes projects that intentionally seek volume reductions through direct action (e.g., demand management). Baseline (budgeted) Spend minus Actual Spend

Cost Avoided

- **Procurement Cost Avoidance** – A cost reduction opportunity that is generated from the competitive bidding process that would be typically realized in future fiscal years. This also includes additional product/services included beyond the requirements and may be reported in the first year. Baseline (market) spend minus Actual Spend
- **Negotiated Cost Avoidance** – An avoided cost generated as a result of the issuance of Best and Final Offers, Sole-Source negotiations, or post-procurement/post-award negotiations that would typically be realized in future fiscal years. This also included additional product/services included beyond the requirements and may be reported in the first year Baseline(market) spend minus Actual Spend
- **In-Contract Cost Avoidance** – A cost reduction opportunity produced as a result of the intervention of a purchasing official in responding to contractor requests for increases in prices, market fluctuations, indices' upward alterations, etc.
- **Rate Reductions** – Obtaining lower rates or prices for goods, services, and construction



UPST Category Savings Impact - Definitions

- **Baseline Spend:** The average price of bids/proposals received in response to a solicitation which also represents the then-current market price. When that is not available a relevant price index or the initially proposed cost from a supplier should be used.
- **Actual Spend:** Represents the lowest responsive and responsible bidder or accepted offered price
- **Savings:** The difference between the Baseline Spend and Actual Spend is the Savings (amount of Cost Reduction and Cost Avoided avoidance to be reported)

Definitions align with NASPO definitions for savings impact

UPST Cost Savings Methodology – Assumptions

- Procurement Cost Reductions and Avoidances can be most effectively obtained by fair and open based competition;
- The average price of bids/proposals received in response to a solicitation represents the then-current market price or “Baseline Spend.” When that is not available a relevant price index or the initially proposed cost from a supplier should be used
- The lowest responsive and responsible bidder or accepted offered price represents the “Actual Spend”
- The difference between the Baseline Spend and the Actual Spend is the amount of Cost Reduction and Cost Avoided avoidance to be reported.
- Cost Avoided in Future Fiscal years will be tracked, but only Costs Avoided in the Current Fiscal Year will be Reported

Appendix F-2: UPST E&E Project Listing



Spend Category	Project	FY21 Total Savings (\$)
Capital	McCormack Hall Roof Replacement Phase 1	1,109,000
Capital	UMass Amherst Construction Bid	853,391
Capital	UMass Boston Quinn Bldg Roof Replacement	834,899
Capital	Riverside Parking Lot - Lighting Replacement	367,000
Capital	Library Skylight Replacement	201,270
Capital	Ball Hall Fire Alarm Upgrades	200,305
Capital	John Adams Fire Alarm Upgrades - Construction Bid	195,000
Capital	Re-bid Concrete Repairs to the Campus Center Garage	164,715
Capital	UMass Chan 6th Floor Clinical wing	153,884
Capital	Maple Ave Deconstruction	153,534
Capital	All Other Projects - Under \$150K Savings	1,928,527
General Services & Supplies	Re-bidding of UMB Transportation (Paul Revere)	2,940,000
General Services & Supplies	Equipment for Vivarium	393,806
General Services & Supplies	Elsevier	327,593
General Services & Supplies	Pepsi Revenue Contract	78,600
General Services & Supplies	Bio-Safety Cabinets and Transfer Stations	63,587
General Services & Supplies	Transportation Services for the UMD Athletic Department	49,044
General Services & Supplies	All Other Projects - Under \$50K Savings	122,254
IT/Telecom	Boston Network Upgrade Project	1,393,652
IT/Telecom	UMass Chan Innovation Artery (Research Network & Storage)	1,031,443
IT/Telecom	Dell Hardware MSA	773,000
IT/Telecom	Oracle License Negotiation	454,119
IT/Telecom	Jaggaer Procurment System Renewal	289,966
IT/Telecom	Salesforce CRM Consulting for 'Recruitment 2.0'	232,005
IT/Telecom	Echo360 Negotiations	177,000
IT/Telecom	Core Router RFP - UMass Dartmouth	141,082
IT/Telecom	Jaggaer Procurement Tech Contract Renewal	101,426
IT/Telecom	All Other Projects - Under \$100K Savings	253,227
Professional Services	System-wide C19 Testing	755,000
Professional Services	Admin Staff Review for CNS	297,200
Professional Services	Property Recovery	123,644
Professional Services	Oracle Analytics Cloud Assessment & Migration	87,231
Professional Services	Costello Athletic Center Branding	67,705
Professional Services	All Other Projects - Under \$50K Savings	52,120
MRO	MassBiologics Validation Services	147,188
MRO	Otis Elevator Contract	99,852
MRO	Outdoor Fixture, Furniture & Equipment (FF&E)	83,610
MRO	All Other Projects - Under \$50K Savings	60,811
Marketing & Advertising	Isenberg School of Management Marketing	623,342
Marketing & Advertising	UMass Boston Marketing	25,000
	Total	17,406,031

Note: Does not include active and ongoing energy projects.