

ANNUAL REPORT TO THE LEGISLATURE: Powering Student Success, Equity and Economic Growth

February 1, 2023



University of
Massachusetts

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This report has been prepared in accordance with Chapter 126 of the Acts of 2022 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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The University of Massachusetts: Powering student success, equity, and economic growth

Annual Report to the Legislature

February 1, 2023

Executive Summary

Introduction

Every year since 2020, the University of Massachusetts has appreciated the opportunity to compile this comprehensive annual Report to the Legislature, which documents our success in keeping top-quality higher education accessible and affordable for Massachusetts students, our strong and innovative fiscal leadership, transparent information sharing, and the tremendous economic impact that the 5-campus university delivers for our state. The report illustrated the growing statewide, national, and international recognition of university excellence, as affirmed by application numbers and rankings.

New this year – UMass as an engine of financial equity

This year, we have added new graphs and tables documenting the University's intentional and strategic development as a powerful engine of financial equity for Massachusetts students and their families.

They show two important trends:

1. Over the last 10 years, UMass has increased the level of university-generated financial aid for students nearly 2.5 times as fast as the increase in tuition and fees.
2. UMass student average debt at graduation has held essentially flat, and in inflation-adjusted terms, UMass graduating student debt loads have fallen over the last decade.

Student aid focused on Massachusetts students

While in-state students represent 73 percent of our total enrollment, they receive 82 percent of all university-generated financial aid. Thanks to the growing recognition of the quality of a UMass education, the University has been able to execute a strategy of limited tuition and fee increases while still increasing aid to Massachusetts students who most need and deserve this support.

We are now reaching the limits of how much this university-generated aid strategy can yield for our students with financial need while still investing in the teaching, facilities, and services that power student success. The results of, and the limits on, the university-generated free aid strategy documented in this report are one of the leading reasons why the University is seeking funding from the "Fair Share Amendment" approved by Massachusetts voters last November. "Quality public education and affordable public colleges and universities" are, alongside roads, bridges, and public transportation, the stated purposes of Fair Share.

Headwinds

UMass, like colleges and universities across the nation, faces major challenges and headwinds in coming years that Fair Share funding will help us address. These include inflation, deferred maintenance, and

enrollment challenges – the latter driven by declines in the population of high school graduates. With our documented record of excellent financial stewardship and management, this report shows why UMass can be trusted to deploy up to \$200 million of the new Fair Share resources for the maximum benefit of the Commonwealth and its residents.

Investments in UMass students are fundamental investments in the vibrancy of Massachusetts' future. The people we educate today, from recent high school graduates to adult learners returning to school, overwhelmingly set and keep roots here. They represent the current and future core of Massachusetts' skilled workforce. Today, one of every 22 Massachusetts residents has attended UMass -- becoming business founders, job creators, and community leaders throughout our state.

Additional report highlights

Impact:

Among the 74,000 students UMass educates are residents of 345 of our 351 cities and towns. UMass employs 24,000 residents from 340 cities and towns, making it the Commonwealth's third-largest employer.

The UMass system drives \$7.5 billion in annual economic activity, supporting 49,000 total jobs across the state. Analysts calculate that UMass returns \$10 for every \$1 invested in it by the Commonwealth.

UMass faculty and scholars conduct \$752 million in research annually, the third most in the state after Harvard and MIT, in vitally important fields such as life sciences, engineering, computer and data science, education, and climate science. Between 2016 and 2021, UMass affiliates earned 477 patents and launched 55 startups. UMass campuses make 90 core research facilities available to start-up companies to accelerate job-creating innovation.

The University is particularly pleased to report rapid progress on improving the diversity of its suppliers. As recognized by the Greater Boston Chamber of Commerce's "Pacesetters" program promoting equitable, inclusive procurement strategies, UMass's spending with diverse suppliers increased 25 percent from FY21 to FY22. The number of diverse suppliers with whom UMass transacted business jumped 35 percent, from 672 in FY21 to 906 in FY22.

Quality:

UMass faculty includes a Nobel Laureate, Pulitzer Prize winners, Breakthrough Prize winners, members of national academies, and Fulbright, Guggenheim, MacArthur, and Mellon fellows.

Students and their families are "voting with their feet" to affirm the quality and desirability of a UMass education. Applications to UMass have soared by 20.2 percent in the last five years. Since 2010, overall UMass enrollment has increased 7.8 percent, even as state university and community college enrollments declined.

In our FY24 budget request to the Legislature, we recommit to quality by seeking \$24 million to ensure we continue to "put students first." This funding request includes expanded mental health services and increased financial aid, mentoring, and internships to keep students on track to graduation and success.

Strong fiscal management:

The UMass Unified Procurement Services Team (UPST), created to leverage efficiencies across the five-campus system, has recouped \$87.2 million in cost savings since 2020 through more than 280 sourcing initiatives. In the past year, we've accelerated cost reductions in payroll processing and human-resources transactions. We will surpass \$100 million in total savings in the year ahead, allowing redirect of resources to core activity such as financial aid and student services.

UMass ranks in the top 11 percent of rated universities for the quality of our Enterprise Risk Management (ERM) system that tracks threats to finances, enrollment, and operations. Our ERM system won top honors this past year from the Public Risk Management Association (PRIMA).

Moody's Investors Service recently praised UMass's "excellent strategic positioning that incorporates ... strong fiscal discipline and oversight."

Transparency:

Appendix E of this report lists and links to the 59 reports and analyses that UMass makes public every year. This positions us, in the eyes of many observers, as the most transparent of any Massachusetts public entity, agency, or authority.

New and fully public this year is more granular tracking of enrollment to test and refine our enrollment assumptions. UMass also has launched a "deferred maintenance dashboard" itemizing the \$3.9 billion in "catch up" and "keep up" work to be completed over the next 10 years to maintain our 374 buildings, which totals 26 million square feet of space.

Conclusion

The University's mission is "to provide an affordable and accessible education of high quality and to conduct programs of research and public service that advance knowledge and improve the lives of the people of the Commonwealth, the nation, and the world." The steady growth in the number of people seeking to earn a UMass degree attests to our excellence. We take immense pride in the 10:1 return on Commonwealth investment in UMass, which benefits every region of Massachusetts.

With our exemplary fiscal management, resource stewardship, and institutional transparency, and working in partnership with the Commonwealth, the University of Massachusetts remains dedicated to affordable, high-quality education, research, and public service that improve the lives of our students, our state, and our world.

#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
- Center for Data Science
- UMass Donahue Institute
- Institute for Diversity Sciences
- Energy Transition Institute



- Most diverse public university in New England, 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
- College of Management with extensive pathway partnerships
- School for the Environment and Sustainable Solutions Lab



- National Research University With Engineering, Cybersecurity, And Marine Sciences Emphasis (Dartmouth)
- School for Marine Science and Technology (New Bedford)
- College of Visual & Performing Arts (New Bedford)
- Biodegradability Lab (New Bedford)
- UMass Law (Dartmouth)
- Center for Innovation & Entrepreneurship (Fall River)



- Acquired in September 2021 to expand educational opportunities for adult learners
- 501(c)3 nonprofit based in CA serving adult learners in Massachusetts, across the nation, and across the world



- University Closely Engaged With Regional Industries
- Renowned For Technical Emphasis Such as Engineering, Advanced Materials Sciences and Nano-manufacturing
- 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



- 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)



UMBA

- Established in 1960 to provide dormitories, dining commons, and other buildings for the University
- Acquires, constructs, and demolishes buildings, manages capital projects, and issues bonds on behalf of the University to finance or refinance capital projects

Foundation

- Established in 1950 to foster & promote growth, progress, & general welfare of the University
- Solicits, receives, & administers gifts & donations
- Maintains a portion of the University's investment portfolio, predominantly the endowment

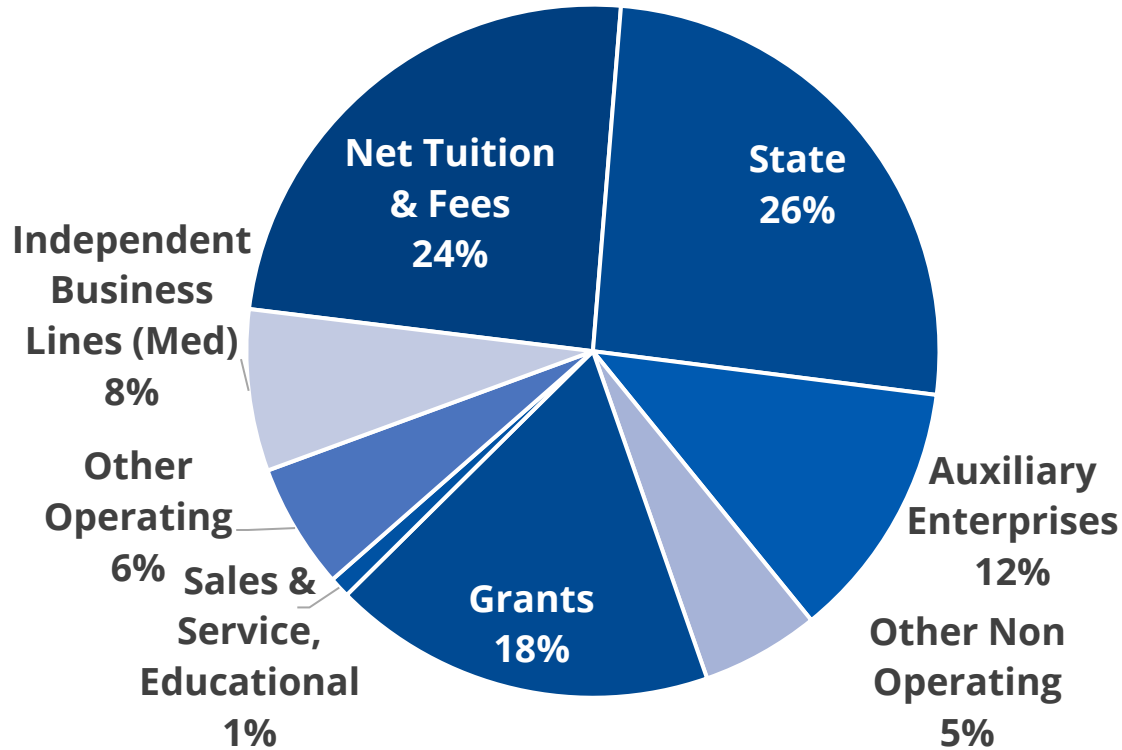


About UMass: Size, Impact, and Scope

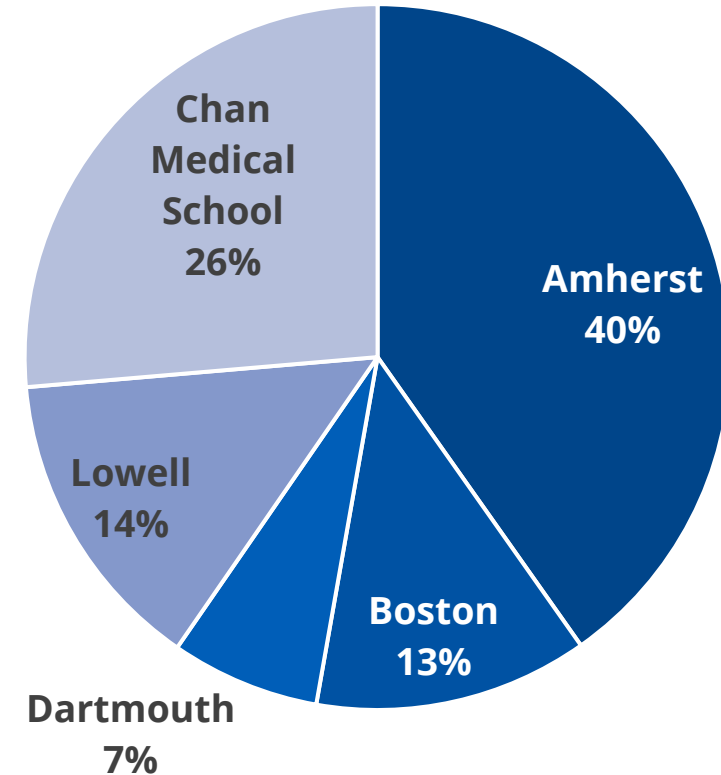
- UMass has a \$3.8 billion budget with 5 campuses geographically spanning all corners of the Commonwealth
- #1 public university in New England with all 4 undergraduate campuses ranked top-tier National Universities
- Carnegie Foundation for the Advancement of Teaching has named UMass a Community-Engaged University
- 18,000 graduates each year with over 330,000 alumni in Massachusetts, 530,000 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
- Nearly 74,000 students by headcount, 64,000+ FTE students
- 24,000 employees (including students) making UMass the 3rd largest employer in Massachusetts

About UMass: Total Revenue = \$3.8 Billion

FY23 Revenue Categories = \$3.8 billion



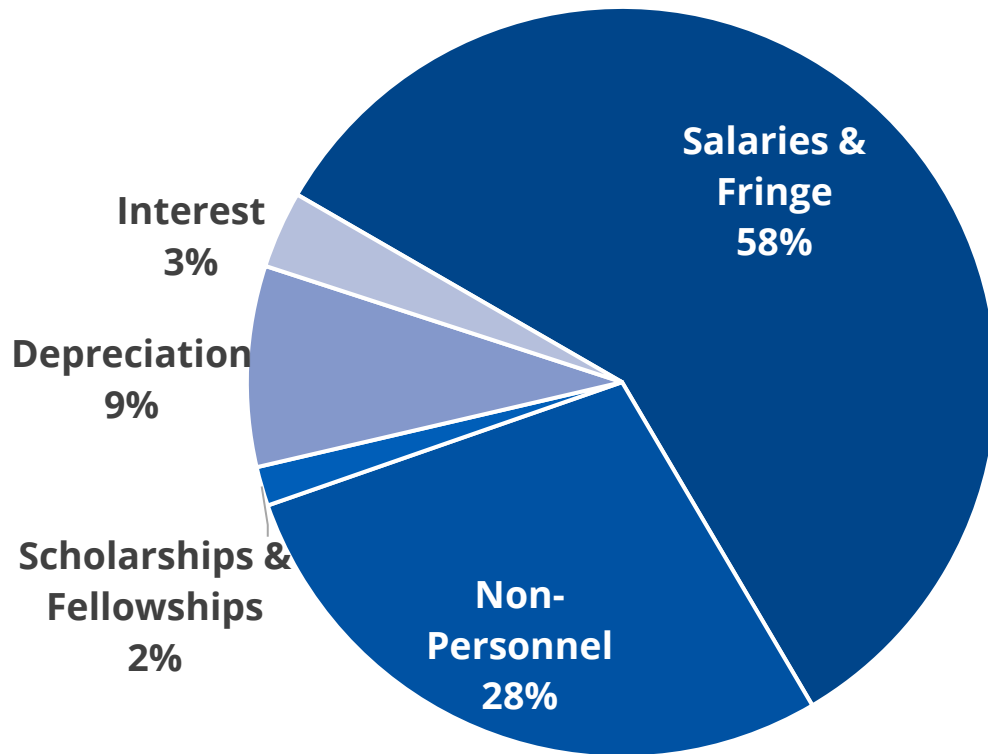
FY23 Campus Revenue



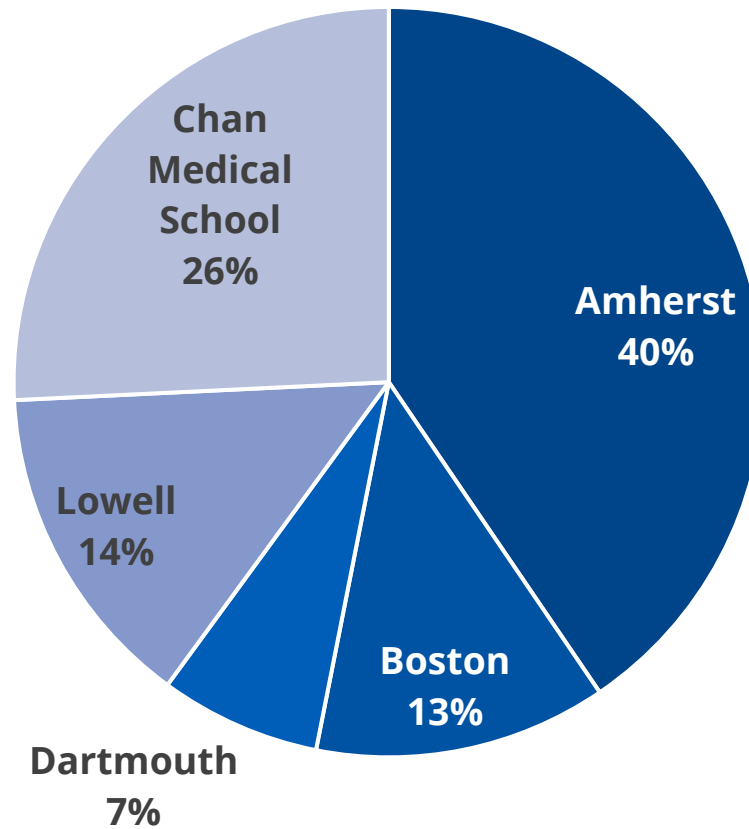
Note: excludes UMass Global

About UMass: Total Expenses = \$3.8 Billion

FY23 Expense Categories = \$3.8 billion

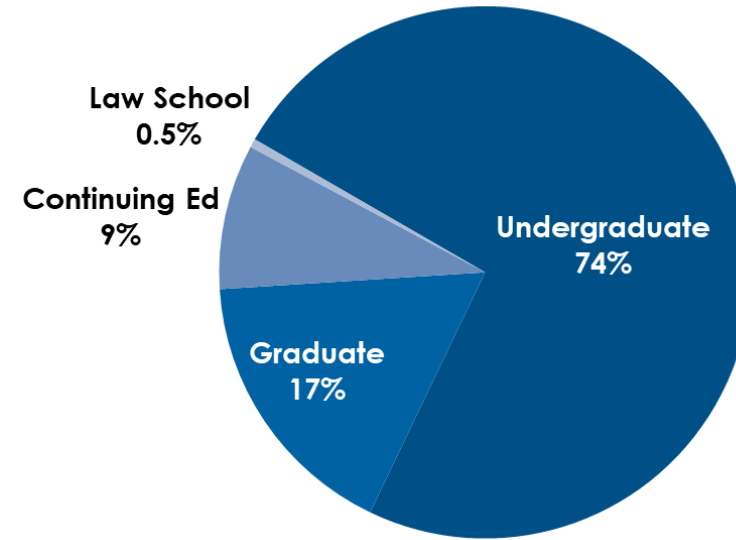
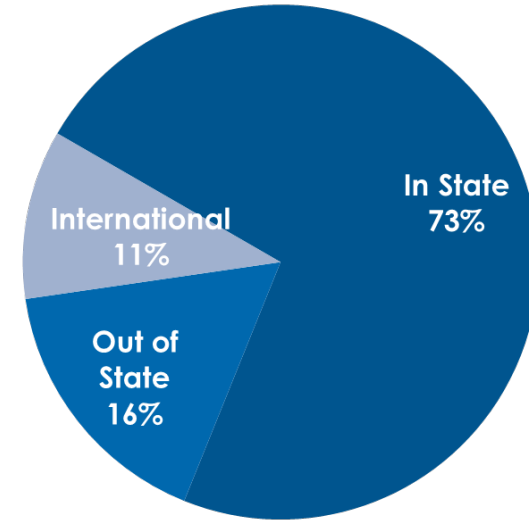
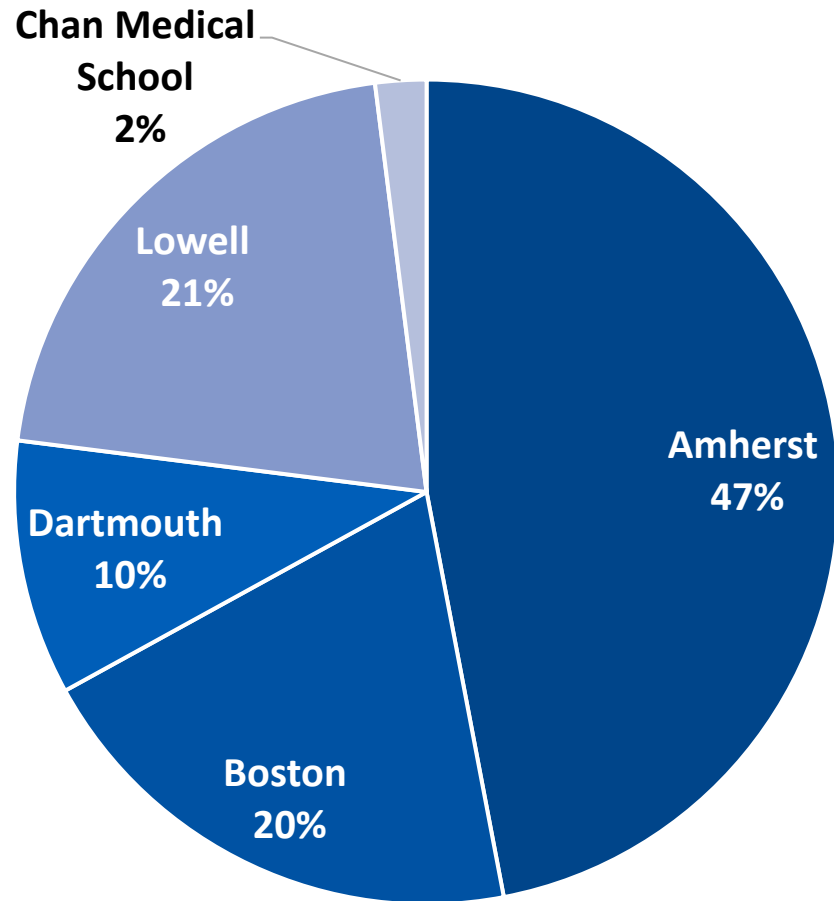


FY23 Campus Expenses



Note: excludes UMass Global

About UMass: Total Enrollment = 64,603 FTEs

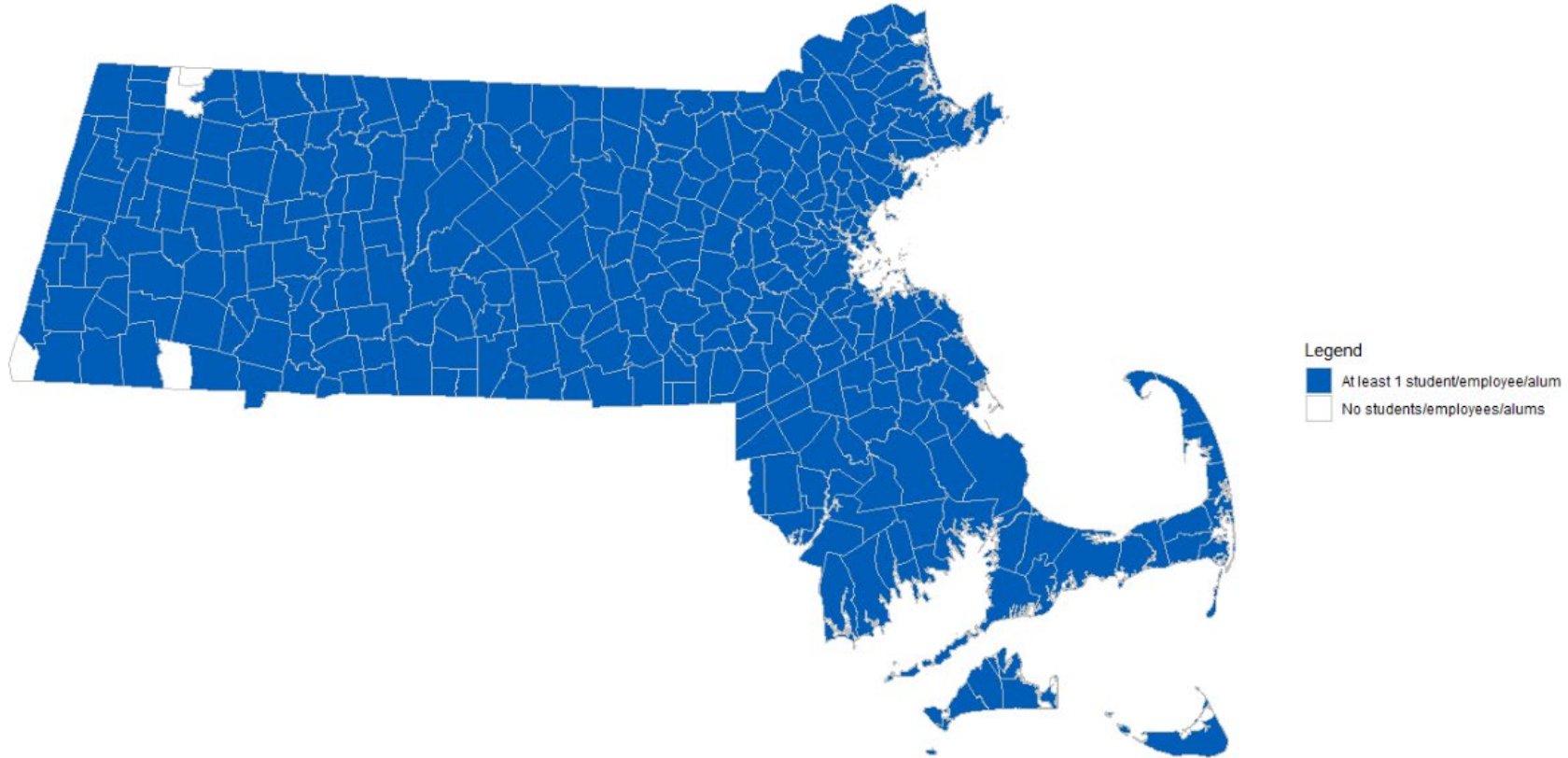


Enrollment in these graphs are based upon student full-time equivalents (FTEs).

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



Data: UMass IR Offices, Human Resources, and Office of Advancement Dec 2022

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



Labor



Operations



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

Analysis



Human Resources



Financial Reporting



UMass Financial Accountability Framework

Approach to identifying, assessing & managing risks.



Enrollment

- Utilize real-time admissions and enrollment
- Expand enrollment views to include international, first-time freshmen and transfers
- Analyze colleges and programs for targeted growth
- Identify additional strategies for recruitment and retention



Financial Sustainability

- Publish annual financial report, implementation of new lease standard & existing Board reserve policy
- Provide quarterly projections
- Develop 5-year forecast; reaching and maintaining a 2% operating margin by FY25



Facilities & Deferred Maintenance

- Refresh the 5-year capital plan every 2 years; report progress quarterly
- Develop keep-up & catch-up targets, utilize dashboard to track progress, ensure proper investments in facilities

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
B	Periodic Multi-year
C	Fall Course File
D	Fall Student File
E	Fall Enrollment File
F	Financial Indicators
G	Financial Aid Report
H	Sustainability Report
I	Housing Report
J	Quarterly Capital
K	Tuition & Fee
L	5-Year Financial
M	Annual Procurement
N	EEO Affirmative
O	Annual Indicators
P	IPEDS - Annual
Q	IPEDS - Boston



#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 each year

10 to 1

Return on state
investment

According to the most recent
Economic Contribution Analysis
in 2018

*Update to economic impact study
for data as of 2022 underway*

\$7.5 billion
in annual economic
activity

17,622

Employees*
Non-student⁺



*Based on headcount

⁺Approximately 24,000 employees (including students) making UMass the 3rd largest employer in Massachusetts

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 that today's high-profile, in-demand jobs require.

19,000

New graduates
every year

337,000

Alumni live in
Massachusetts

82%

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 more than 18,000 students each year.

More than

1 in 5

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

>1.8X

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

30%

of UMass degrees are awarded in STEM fields

Attracting and Developing Talent

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

42%

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 Facilities

- 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.
- 1,243 Innovation Vouchers worth \$7.2 million in state funds have enabled 311 small businesses across the state to use UMass Core Facilities
- An economic impact study by the UMass Donahue Institute showed that the voucher program generates more than \$3 in tax revenue for every \$1 of 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 Biodegradability Laboratory through a unique private-public partnership with a private materials manufacturer and a 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 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 (UMLARC) (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 Key Industry Partnerships Continued

The Center for Innovation and Entrepreneurship (CIE)

- The CIE serves the University and Southcoast Entrepreneurs to convert their research and ideas into products and services. For early-stage technology companies, the CIE serves as an incubator, partnering to bring entrepreneurs' innovations to fruition by providing office space, prototyping services, laboratory resources, interns, programming, mentoring, networking, and a community of mutual support.

The Marine and UnderSea Technology (MUST) Research Program

- MUST meets the two greatest needs of the US Navy – cutting-edge research and a highly skilled technical workforce. Involved in the research projects are several regional and national industry partners that work closely with the faculty and students to accelerate the technology readiness of faculty research in the areas of marine science and technology, and marine renewable energy.

MassBio Training Center

- In 2022, UMass Boston established a partnership with MassBio to educate and train students in the workforce training center that MassBio is opening at Southline in Dorchester. MassBio expects there to be 40,000 life sciences and bio tech job openings in Massachusetts by 2024 and UMB is at the table co-creating a curriculum for the training center, which will launch in 2023 with three distinct fast-track certificate training programs that are purpose-built to meet both the needs of the life sciences industry and the unique needs of prospective learners.

UMass Serving the Community

UMass students contribute hundreds of thousands of 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: With the launch of its Strategic Plan, For the Times, UMB has renewed its commitment to being indispensable to the City of Boston as a leading anti-racist, public health promoting university and is engaging at multiple levels with the Office of Black Male Advancement, Boston Public Health Commission, Boston Public Schools, and the Boston Green Ribbon Commission.

UMass Dartmouth: Students gave 211,000+ hours of service to the SouthCoast community, including activities like student volunteering as tutors through the America Reads/Counts program at K-12 schools and community organizations across the region. Since its founding in 2010, UMass law students have contributed more than 188,000 hours of pro bono legal services, including through the Justice Bridge program, which has served thousands of modest means clients throughout the Commonwealth in areas such as housing, family, and immigration law.

UMass Lowell: Devotes 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 and 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: Five teams of UMass Chan Medical School students were awarded Martin Luther King Jr. Semester of Service Student Awards to implement community service programs. The projects included initiatives to improve pediatric oral health in Worcester, develop and deliver a series of educational lectures on clinical signs and symptoms in black and brown skin, enhance team care and patient privacy in free medical clinics, provide educational support for help Afghan refugees, and introduce health care career-oriented mentorship for middle school girls.

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.

1,700+

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

#1

Ranked Online
Master's in
Criminal Justice
(Lowell)

2

Top 25 ranked
Online
Bachelor's
Programs

#14

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

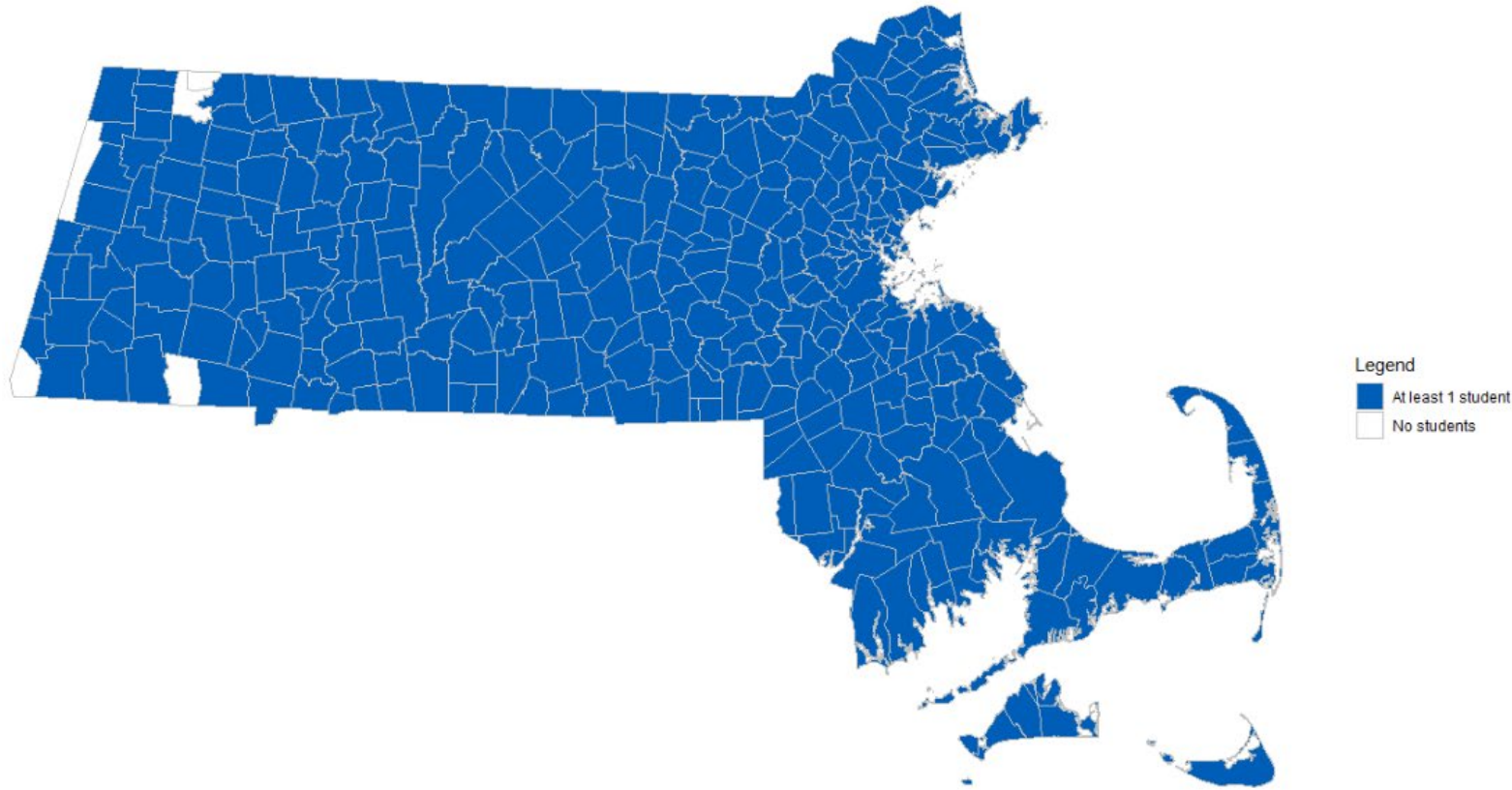
¹ Best Colleges for Veterans by U.S. News and World Report (Amherst, Lowell)

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 more than 345 communities of the Commonwealth

UMASS STUDENTS IN THE COMMONWEALTH: REPRESENTATION AMONG THE 351 COMMUNITIES

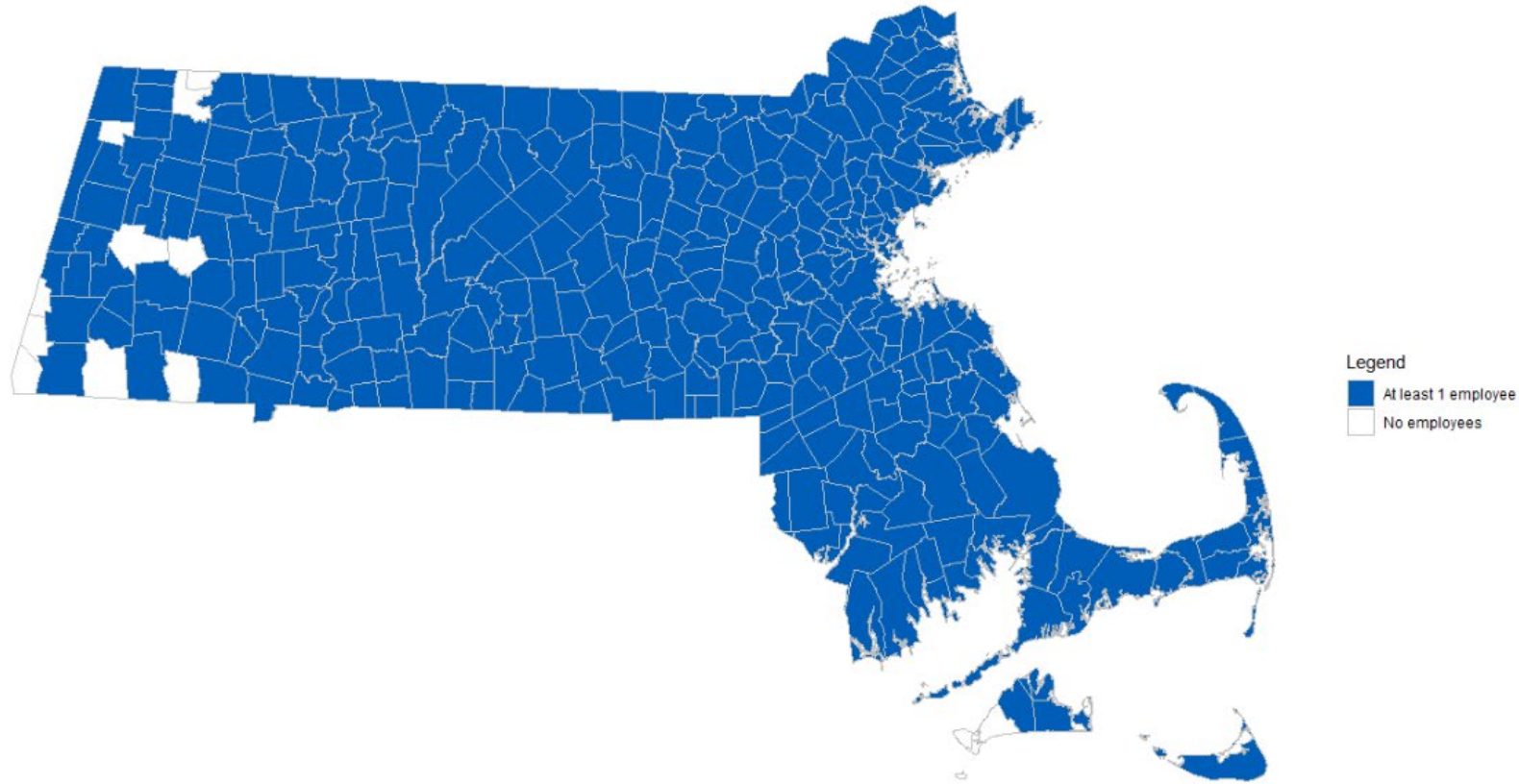


Data: Fall 2022 enrollment UMass IR offices



UMass employees come from more than 340 communities of the Commonwealth

UMASS EMPLOYEES IN THE COMMONWEALTH: REPRESENTATION AMONG THE 351 COMMUNITIES

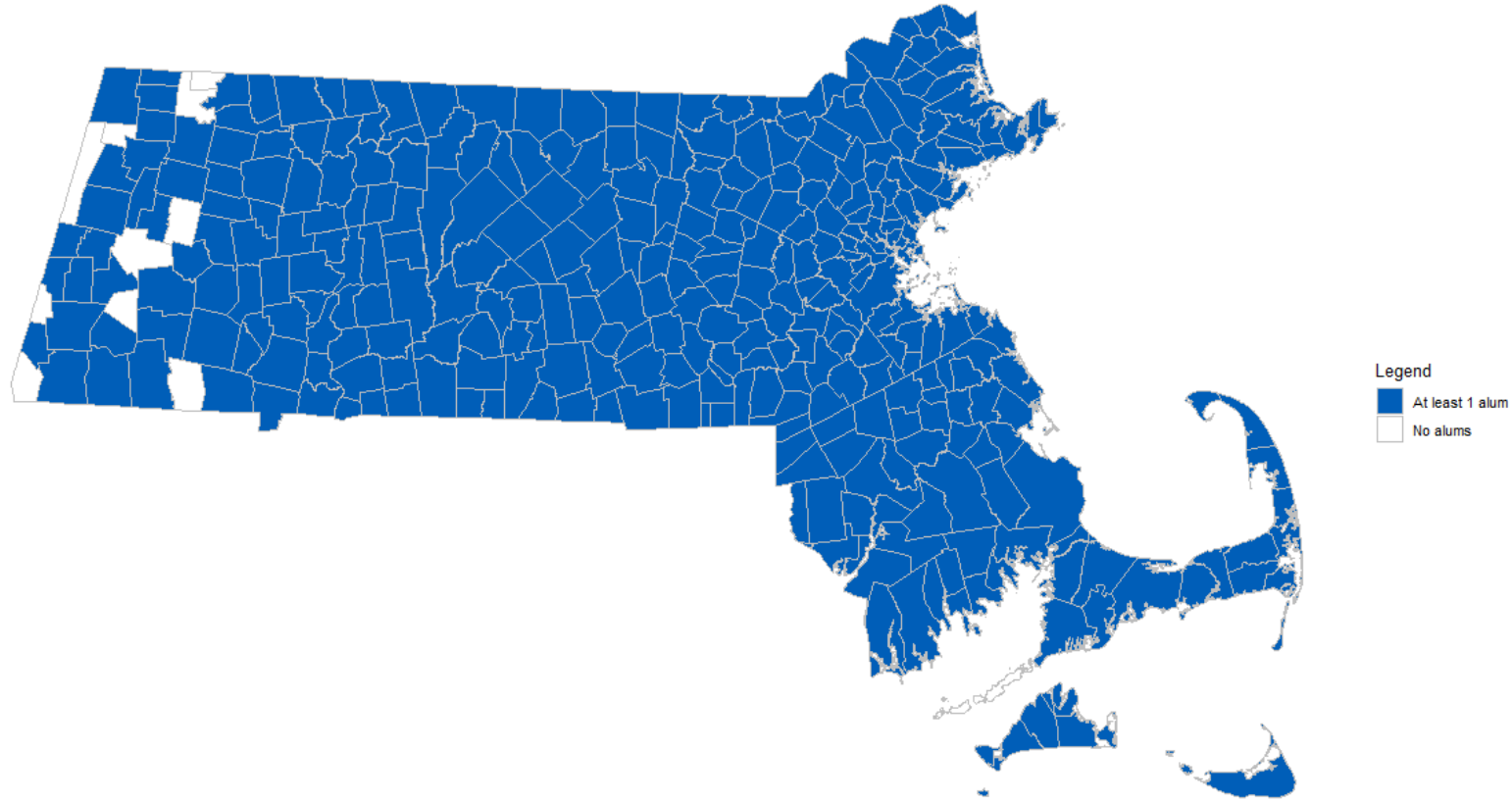


Data: Human Resources Dec 2022



UMass alumni live in 340 communities of the Commonwealth

UMASS ALUMNI IN THE COMMONWEALTH: REPRESENTATION AMONG THE 351 COMMUNITIES



Data: UMass Office of Advancement Dec 2022



Life-Changing Research

UMass conducts \$752 million in research in areas critical to the Massachusetts economy, including life sciences, engineering, computer and data science, education, and climate science.

3rd-largest

research portfolio in MA,
behind only Harvard and MIT

\$752million

in annual research &
development in FY21

UMass conducts

16%

of all research in
MA

>90

core research facilities
across the state

59%

is federally funded research

The Economic Impact of Discovery

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

55

Start-up companies
launched

2016-2021

Research & Discovery
by the numbers

\$310 million

in licensing income
generated

477

Patents awarded

1,131

Invention
disclosures filed

224

Licenses & Options
completed

Source: AUTM Report FY 2015-2021

#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?

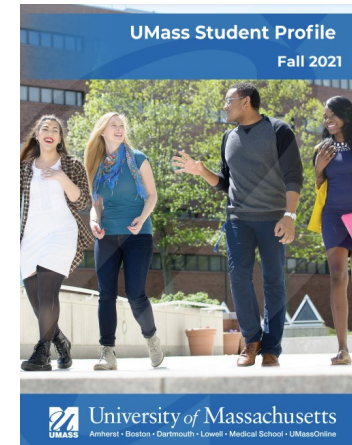
- ✓ Data at the University and campus levels
- ✓ Includes break out by career, residency, freshmen and transfers
- ✓ Number of applications received
- ✓ Number of students admitted based on student qualifications
- ✓ Number of students enrolled (i.e. have been accepted and are attending courses); also 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; enrollment grew in 2022 vs. 2021.

SYSTEM UNDERGRADUATE ADMISSIONS: FIRST-YEAR STUDENTS

FUNNEL	FALL 2022*	Δ VS FALL 2021	Δ VS FALL 2017
APPLICANTS	85.9K	▲ 6.6%	▲ 20.2%
ADMITS	63.5K	▲ 8.3%	▲ 37.0%
ENROLLS	11.2K	▲ 9.8%	▲ 13.1%

SOURCE: *Preliminary Fall 2022 Admissions & Enrollment Report

UMass Transfer Admissions

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

SYSTEM UNDERGRADUATE ADMISSIONS: TRANSFER STUDENTS

FUNNEL	FALL 2022*	Δ VS FALL 2021	Δ VS FALL 2017
APPLICANTS	8.9K	▼ 9.4%	▼ 10.6%
ADMITS	7.1K	▲ 3.5%	▼ 11.8%
ENROLLS	3.4K	▼ 9.2%	▼ 28.2%

SOURCE: *Preliminary Fall 2022 Admissions & Enrollment Report

UMass Undergraduate Enrollment

Across the System, undergraduate enrollments show slight decreases in both short- and long-term comparisons.





UNDERGRADUATE ENROLLMENTS			
METRIC	FALL 2022*	Δ VS FALL 2021	Δ VS FALL 2017
HEADCOUNT	54.5K	▼ 1.2%	▼ 4.0%
FTE	50.2K	▼ 1.1%	▼ 2.9%

SOURCE: *Preliminary Fall 2022 Admissions & Enrollment Report. FTE figures include continuing education and online-only students that are broken out in future presentations of enrollment.

UMass Graduate Enrollment

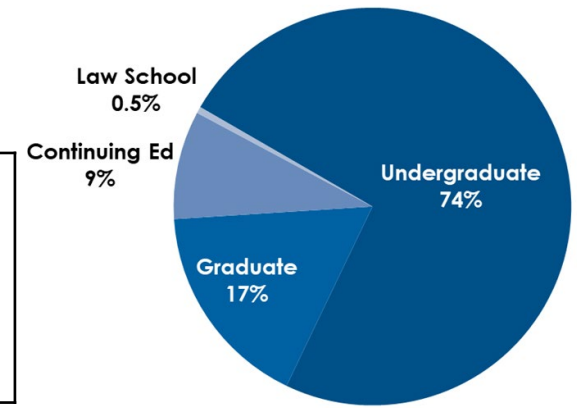
Across the System, graduate enrollments show nominal increases in both short- and long-term comparisons.

GRADUATE ENROLLMENTS

METRIC	FALL 2022*	Δ VS FALL 2021	Δ VS FALL 2017
HEADCOUNT	19.4K	 0.6%	 9.6%
FTE	14.5K	 2.8%	 12.2%

SOURCE: *Preliminary Fall 2022 Admissions & Enrollment Report. FTE figures include continuing education and online-only students that are broken out in future presentations of enrollment.

Enrollment



AAGR*	Total	Undergraduate	Graduate
FY24-28:	0.7	0.5	1.5
FY21-23:	-0.7	-1.8	3.9
FY18-20:	1.1	1.7	-0.4

Students <i>FTEs</i>	Actual		Forecast					Average Growth		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY18-20	FY21-23	FY24-28
Amherst	29,804	30,188	29,882	30,086	30,443	30,355	30,355			
% Change	0.4%	1.3%	-1.0%	0.7%	1.2%	-0.3%	0.0%	1.9%	0.4%	0.1%
Boston	12,959	12,876	13,000	13,185	13,245	13,302	13,307			
% Change	-4.5%	-0.6%	1.0%	1.4%	0.5%	0.4%	0.0%	0.8%	-0.9%	0.7%
Dartmouth	6,459	6,314	6,411	6,599	6,642	6,724	6,829			
% Change	-3.7%	-2.3%	1.5%	2.9%	0.7%	1.2%	1.6%	-2.1%	-3.2%	1.6%
Lowell	14,321	13,925	14,063	14,412	14,714	14,834	14,956			
% Change	-3.6%	-2.8%	1.0%	2.5%	2.1%	0.8%	0.8%	1.3%	-2.0%	1.4%
Chan Medical School	1,246	1,301	1,325	1,363	1,413	1,463	1,488			
% Change	0.3%	4.4%	1.8%	2.9%	3.7%	3.5%	1.7%	5.5%	2.9%	2.7%
University	64,789	64,603	64,682	65,644	66,457	66,678	66,935			
% Change	-1.9%	-0.3%	0.1%	1.5%	1.2%	0.3%	0.4%	1.1%	-0.7%	0.7%

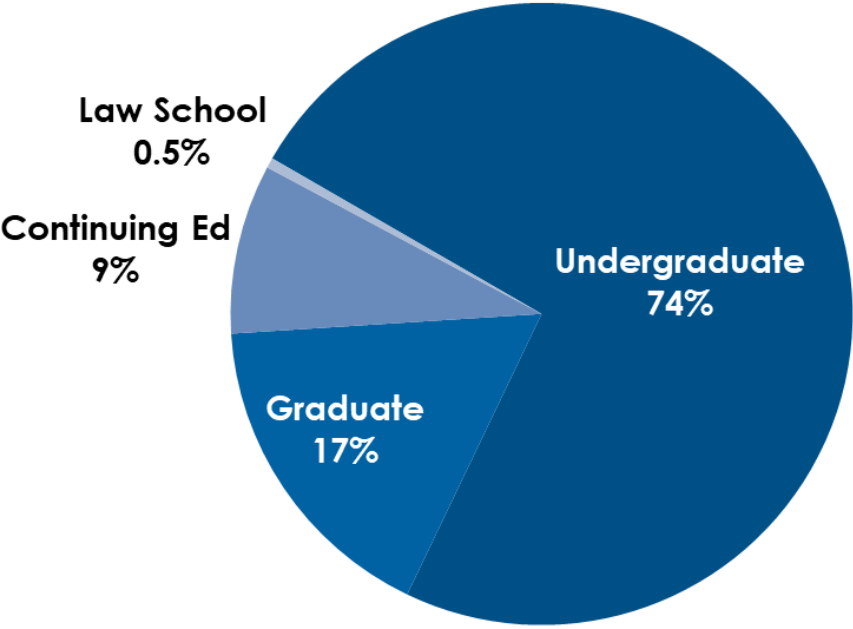
Note: excludes UMass Global

University: Enrollment Trend

University Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Undergraduate	48,557	49,571	50,241	49,532	47,746	47,574	47,610	47,427	47,951	48,628	48,719	48,867
% Change		2.1%	1.4%	-1.4%	-3.6%	-0.4%	-0.3%	-0.4%	1.1%	1.4%	0.2%	0.3%
Graduate	9,976	9,920	9,893	10,199	10,395	10,760	11,099	11,312	11,704	11,794	11,879	11,940
% Change		-0.6%	-0.3%	3.1%	1.9%	3.5%	6.8%	1.9%	3.5%	0.8%	0.7%	0.5%
Continuing Ed	5,814	5,658	5,634	6,012	6,321	6,431	5,552	5,600	5,641	5,682	5,722	5,765
% Change		-2.7%	-0.4%	6.7%	5.1%	1.7%	-12.2%	0.9%	0.7%	0.7%	0.7%	0.7%
Law	184	199	246	328	326	325	341	343	348	353	358	363
% Change		8.4%	23.6%	33.2%	-0.5%	-0.3%	4.6%	0.6%	1.5%	1.4%	1.4%	1.4%
Total	64,530	65,348	66,013	66,071	64,789	65,090	64,602	64,682	65,644	66,457	66,678	66,935
% Change		1.3%	1.0%	0.1%	-1.9%	0.5%	-0.3%	0.1%	1.5%	1.2%	0.3%	0.4%

Source: Actuals from student profile; excludes UMass Global.

Enrollment by Career



Students (FTEs) FY2023	
Undergraduate	47,610
Graduate	11,099
Continuing Ed	5,552
Law School	341
University	64,602

University

AAGR	FY18-20	FY21-23	FY24-28
Undergraduate	1.7%	-1.8%	0.5%
Graduate	-0.4%	3.9%	1.5%
Continuing Ed	-1.6%	-0.1%	0.8%
Law School	16.0%	12.4%	1.3%
Total	1.1%	-0.7%	0.7%

Note: excludes UMass Global

Amherst

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
Undergraduate	23,722	2.3%	0.1%	0.1%
Graduate	3,840	0.4%	1.0%	0.0%
Continuing Ed	2,626	0.7%	3.4%	0.0%
Total	30,188	1.9%	0.4%	0.1%

Boston

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
Undergraduate	9,997	2.3%	-0.9%	0.5%
Graduate	1,829	-0.5%	1.6%	1.8%
Continuing Ed	1,050	-8.5%	0.1%	0.5%
Total	12,876	0.8%	-0.9%	0.7%

Dartmouth

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
Undergraduate	4,422	-2.9%	-5.6%	-0.0%
Graduate	697	-12.3%	9.6%	8.2%
Continuing Ed	853	6.5%	-2.0%	4.0%
Law School	341	16.0%	12.4%	1.3%
Total	6,313	-2.1%	-3.2%	1.6%

Lowell

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
Undergraduate	9,469	2.4%	-4.8%	1.8%
Graduate	3,432	-0.9%	9.2%	1.0%
Continuing Ed	1,024	-3.7%	-3.6%	0.0%
Total	13,925	1.3%	-2.0%	1.4%

Undergraduate Enrollment

AAGR
 FY24-28: 0.5
 FY21-23: -1.8
 FY18-20: 1.7

Students <i>FTEs</i>	Actual		Forecast					Average Growth		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY18-20	FY21-23	FY24-28
Amherst	23,292	23,722	23,416	23,620	23,977	23,889	23,889			
% Change	-0.6%	1.8%	-1.3%	0.9%	1.5%	-0.4%	0.0%	1.6%	0.1%	0.1%
Boston	9,810	9,997	10,064	10,123	10,176	10,231	10,236			
% Change	-5.4%	1.9%	0.7%	0.6%	0.5%	0.5%	0.0%	2.7%	-0.9%	0.5%
Dartmouth	4,635	4,422	4,374	4,321	4,322	4,360	4,418			
% Change	-7.2%	-4.6%	-1.1%	-1.2%	0.0%	0.9%	1.3%	-3.5%	-5.6%	-0.0%
Lowell	10,010	9,469	9,573	9,887	10,154	10,239	10,325			
% Change	-6.8%	-5.4%	1.1%	3.3%	2.7%	0.8%	0.8%	4.1%	-4.8%	1.8%
University	47,746	47,610	47,427	47,951	48,628	48,719	48,867			
	-3.6%	-0.3%	-0.4%	1.1%	1.4%	0.2%	0.3%	1.7%	-1.8%	0.5%

Note: excludes UMass Global

Graduate Enrollment

AAGR

FY24-28: 1.5

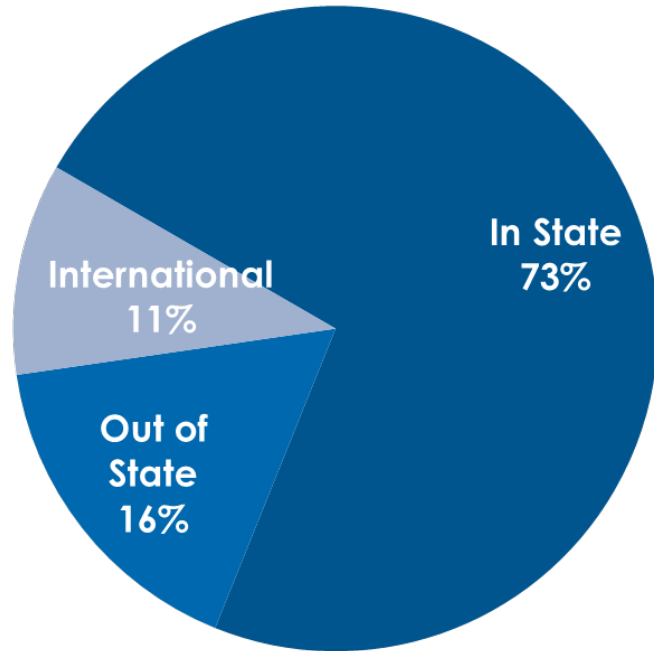
FY21-23: 3.9

FY18-20: -0.4

Students <i>FTEs</i>	Actual		Forecast					Average Growth		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY18-20	FY21-23	FY24-28
Amherst	3,735	3,840	3,840	3,840	3,840	3,840	3,840			
<i>% Change</i>	2.5%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	1.0%	0.0%
Boston	1,556	1,829	1,872	1,992	1,996	1,996	1,996			
<i>% Change</i>	-13.2%	17.5%	2.3%	6.4%	0.2%	0.0%	0.0%	-0.5%	1.6%	1.8%
Dartmouth	566	697	809	1,009	1,009	1,009	1,009			
<i>% Change</i>	-2.4%	23.1%	16.1%	24.7%	0.0%	0.0%	0.0%	-12.3%	9.6%	8.2%
Lowell	3,292	3,432	3,466	3,501	3,536	3,571	3,607			
<i>% Change</i>	11.9%	4.2%	1.0%	1.0%	1.0%	1.0%	1.0%	-0.9%	9.2%	1.0%
Chan Medical School	1,246	1,301	1,325	1,363	1,413	1,463	1,488			
<i>% Change</i>	0.3%	4.4%	1.8%	2.9%	3.7%	3.5%	1.7%	5.5%	2.9%	2.7%
University	10,395	11,099	11,312	11,704	11,794	11,879	11,940			
	1.9%	6.8%	1.9%	3.5%	0.8%	0.7%	0.5%	-0.4%	3.9%	1.5%

Note: excludes UMass Global

Enrollment by Residency



Students (FTEs) FY2023	
In State	47,009
Out of State	10,726
International	6,866
University	64,602

University

AAGR	FY18-20	FY21-23	FY24-28
In State	1.6%	-2.0%	0.4%
Out of State	0.4%	3.5%	1.8%
International	-1.2%	1.7%	1.3%
Total	1.1%	-0.9%	0.7%

Note: excludes UMass Global

Amherst

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
In State	20,115	2.3%	-1.0%	-0.0%
Out of State	6,435	-1.9%	3.9%	0.8%
International	3,638	6.7%	3.3%	-0.4%
Total	30,188	1.9%	0.4%	0.1%

Boston

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
In State	10,056	1.9%	-1.8%	0.2%
Out of State	1,377	7.8%	17.2%	1.5%
International	1,443	-7.6%	-5.2%	3.2%
Total	12,876	0.8%	-0.9%	0.7%

Dartmouth*

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
In State	5,014	-3.2%	-4.8%	-0.2%
Out of State	911	5.4%	-3.6%	6.7%
International	389	-6.4%	166.3%	9.9%
Total	6,314	-2.1%	-3.2%	1.6%

Lowell

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
In State	11,004	2.7%	-3.2%	1.5%
Out of State	1,637	-1.2%	1.4%	1.2%
International	1,284	-8.9%	6.0%	1.1%
Total	13,925	1.3%	-2.0%	1.4%

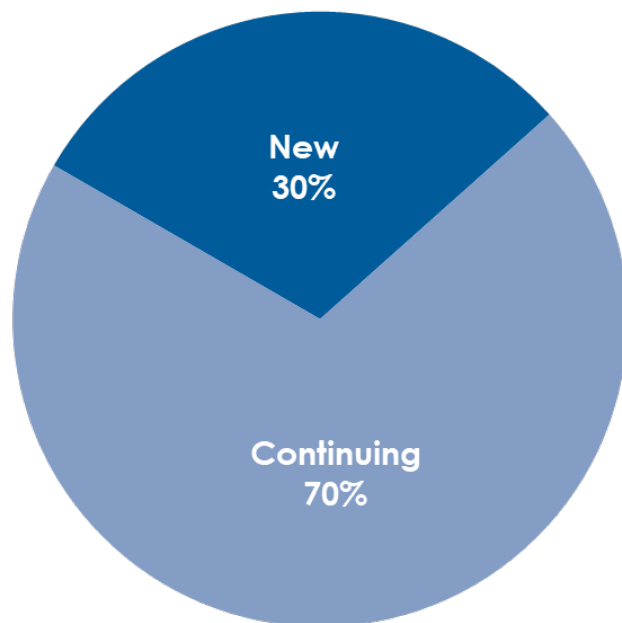
*International enrollment grew by 330 FTEs in FY23, largely attributed to strategic growth in graduate programs.

University: Enrollment by Residency

University Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
In State	48,556	49,461	50,117	50,476	48,752	48,676	47,009	46,605	46,949	47,489	47,718	47,858
% Change		1.9%	1.3%	0.7%	-3.4%	-0.2%	-3.4%	-0.9%	0.7%	1.2%	0.5%	0.3%
Out of State	9,415	9,451	9,491	9,668	10,178	10,382	10,726	11,017	11,337	11,615	11,640	11,744
% Change		0.4%	0.4%	1.9%	5.3%	2.0%	3.3%	2.7%	2.9%	2.5%	0.2%	0.9%
International	6,559	6,436	6,405	5,928	5,858	6,032	6,866	7,060	7,358	7,352	7,320	7,333
% Change		-1.9%	-0.5%	-7.5%	-1.2%	3.0%	13.8%	2.8%	4.2%	-0.1%	-0.4%	0.2%
Total	64,530	65,348	66,013	66,071	64,789	65,090	64,602	64,682	65,644	66,457	66,678	66,935
% Change		1.3%	1.0%	0.1%	-1.9%	0.5%	-0.8%	0.1%	1.5%	1.2%	0.3%	0.4%

Source: Actuals from student profile; excludes UMass Global.

Undergraduate Enrollment by New vs Continuing



UG (FTEs)	FY2023
New	14,245
<i>First-time Freshmen</i>	11,472
<i>Transfer</i>	2,773
Continuing	33,364
Undergrad Total	47,609

University

AAGR	FY18-20	FY21-23	FY24-28
New	5.4%	-3.7%	0.7%
<i>First-time Freshmen</i>			0.9%
<i>Transfer</i>			-0.2%
Continuing	0.3%	-0.7%	-0.0%
Total	1.7%	-1.8%	0.5%

Note: excludes UMass Global

Amherst

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
New	6,993	5.1%	-0.9%	-0.8%
<i>First-time Freshmen</i>				-0.9%
<i>Transfer</i>				-0.0%
Continuing	16,729	0.2%	0.7%	0.5%
UG Total	23,722	1.6%	0.1%	0.1%

Boston

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
New	3,244	7.8%	0.1%	0.5%
<i>First-time Freshmen</i>				0.6%
<i>Transfer</i>				0.2%
Continuing	6,753	0.7%	-1.3%	0.5%
UG Total	9,997	2.7%	-0.9%	0.5%

Dartmouth

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
New	1,506	1.4%	-4.2%	2.8%
<i>First-time Freshmen</i>				3.2%
<i>Transfer</i>				0.2%
Continuing	2,916	-5.5%	-4.7%	-1.6%
UG Total	4,422	-3.5%	-4.7%	-0.0%

Lowell

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
New	2,502	6.4%	-7.9%	3.6%
<i>First-time Freshmen</i>				4.9%
<i>Transfer</i>				-1.1%
Continuing	6,966	3.3%	-3.5%	1.1%
UG Total	9,469	4.1%	-4.8%	1.8%

University: Enrollment by New vs Continuing

University Enrollment (FTEs)	Actual						Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
New	13,230	13,793	14,876	15,479	13,881	13,373	13,849	14,245	14,168	14,383	14,537	14,683	14,753
First-time Freshman							10,757	11,472	11,424	11,636	11,786	11,932	12,002
Transfer							3,092	2,773	2,744	2,747	2,751	2,751	2,751
% Change	645.8%	4.2%	7.9%	4.1%	-10.3%	-3.7%	3.6%	2.9%	-0.5%	1.5%	1.1%	1.0%	0.5%
Continuing	34,490	34,763	34,694	34,760	35,651	34,373	33,725	33,364	33,258	33,568	34,092	34,036	34,115
% Change	688.4%	0.8%	-0.2%	0.2%	2.6%	-3.6%	-1.9%	-1.1%	-0.3%	0.1%	0.1%	0.0%	0.0%
Undergraduate Total	47,720	48,555	49,570	50,239	49,531	47,746	47,574	47,609	47,426	47,951	48,629	48,718	48,868
% Change	676.1%	1.7%	2.1%	1.3%	-1.4%	-3.6%	-0.4%	0.1%	-0.4%	0.9%	1.6%	-0.2%	0.2%

Source: Actuals from student profile; excludes UMass Global.

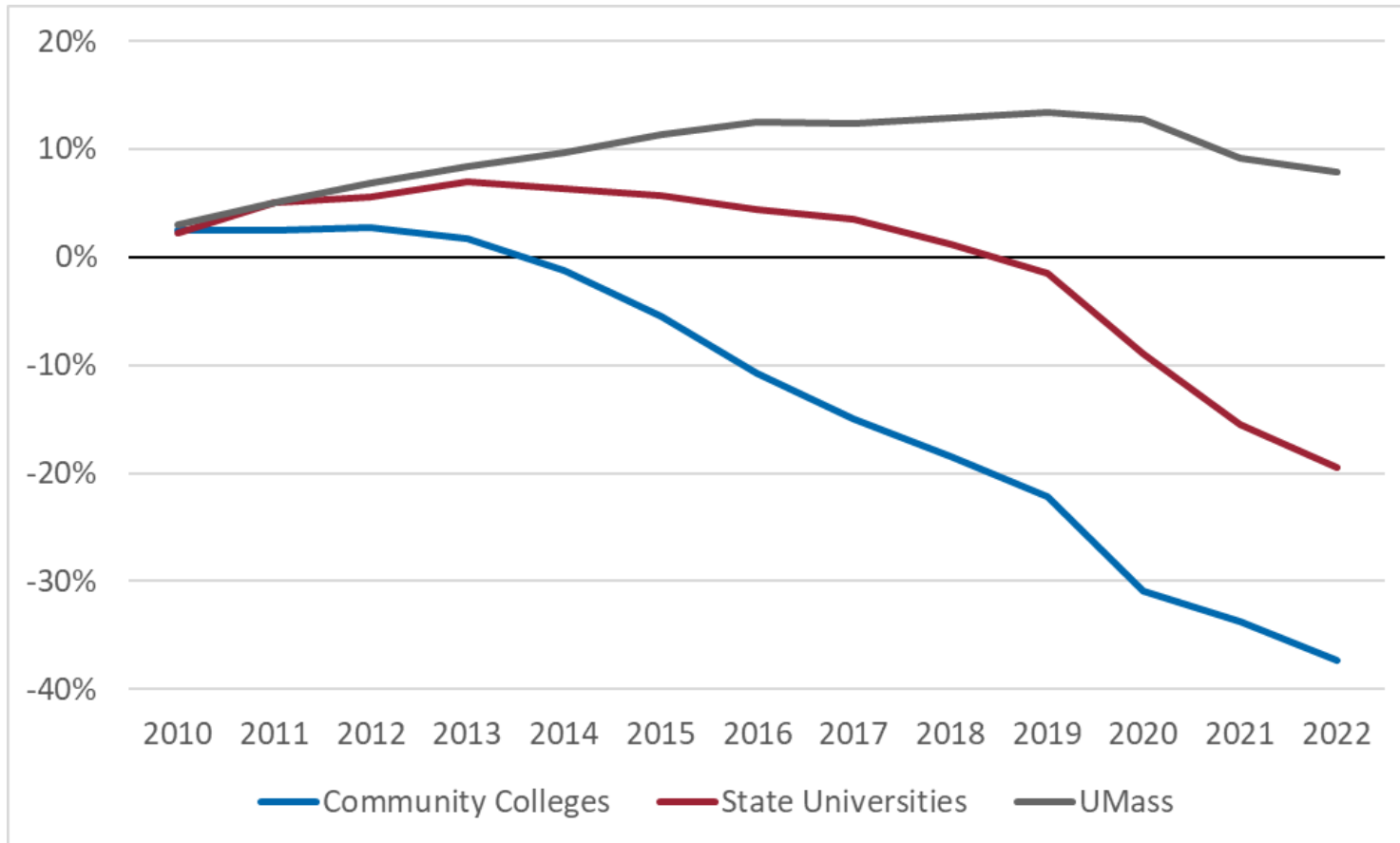
Online Only Student FTEs

- Reflects students taking exclusively online courses through our campuses
- Does not include UMass Global

Students <i>FTEs</i>	Actual		Forecast					Average Growth		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY18-20	FY21-23	FY24-28
Amherst	2,190	2,005	2,005	2,005	2,005	2,005	2,005			
% Change	10.8%	-8.4%	0.0%	0.0%	0.0%	0.0%	0.0%	-2.3%	7.2%	0.0%
Boston	1,310	999	1,002	1,008	1,012	1,014	1,014			
% Change	54.7%	-23.7%	0.3%	0.6%	0.4%	0.2%	0.0%	5.6%	13.6%	0.3%
Dartmouth	804	675	709	745	782	821	863			
% Change	16.5%	-16.0%	5.0%	5.1%	5.0%	5.0%	5.1%	46.1%	2.3%	5.0%
Lowell	2,846	2,811	2,830	2,856	2,880	2,899	2,918			
% Change	20.8%	-1.2%	0.7%	0.9%	0.9%	0.7%	0.7%	1.4%	13.6%	0.8%
University	7,150	6,490	6,546	6,614	6,679	6,739	6,801			
	21.8%	-9.2%	0.9%	1.0%	1.0%	0.9%	0.9%	3.9%	9.8%	0.9%

Enrollment Trends: UMass Up, Other Public Schools Way Down

Cumulative Percent Change in Undergraduate Headcount Enrollment, 2010-22



UMass:

Cumulative Percent Change: **7.8%**
Average Annual Percent Change: **0.6%**

State Universities:

Cumulative Percent Change: **-19.4%**
Average Annual Percent Change: **-1.6%**

Community Colleges:

Cumulative Percent Change: **-37.4%**
Average Annual Percent Change: **-3.5%**

#4. Financial Aid



University of Massachusetts

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



Financial Aid

What is it?

Details key definitions on financial aid, trend data on UMass investment in financial aid compared to other sources, and strategy to address student affordability and access.

When do we do it?

Annual report developed 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?

- ✓ Define sources and types of financial aid
- ✓ Growth in University-generated aid
- ✓ Focus on in state student
- ✓ Substantial student financial need to address costs

Why do we do it?

- ✓ To quantify the amount of financial aid provided to our students from University-generated sources and other sources
- ✓ To highlight the University's significant investment; particularly to in state undergraduate students
- ✓ To show the impact on affordability & accessibility

Key Links:

- ✓ [FY22 Report](#)



UMass is committed to access and affordability



\$373 million: Annual financial aid generated by UMass tuition pricing/free aid strategy, up 78% over the past decade



On a per student basis University-generated aid has grown over **5X** as fast as net tuition & fee revenue since 2018



82% of University-generated aid goes to in state students, well above their 73% share of total enrollment



\$20,343 average annual net price at UMass is just 2/3rds of the average Massachusetts private institution price

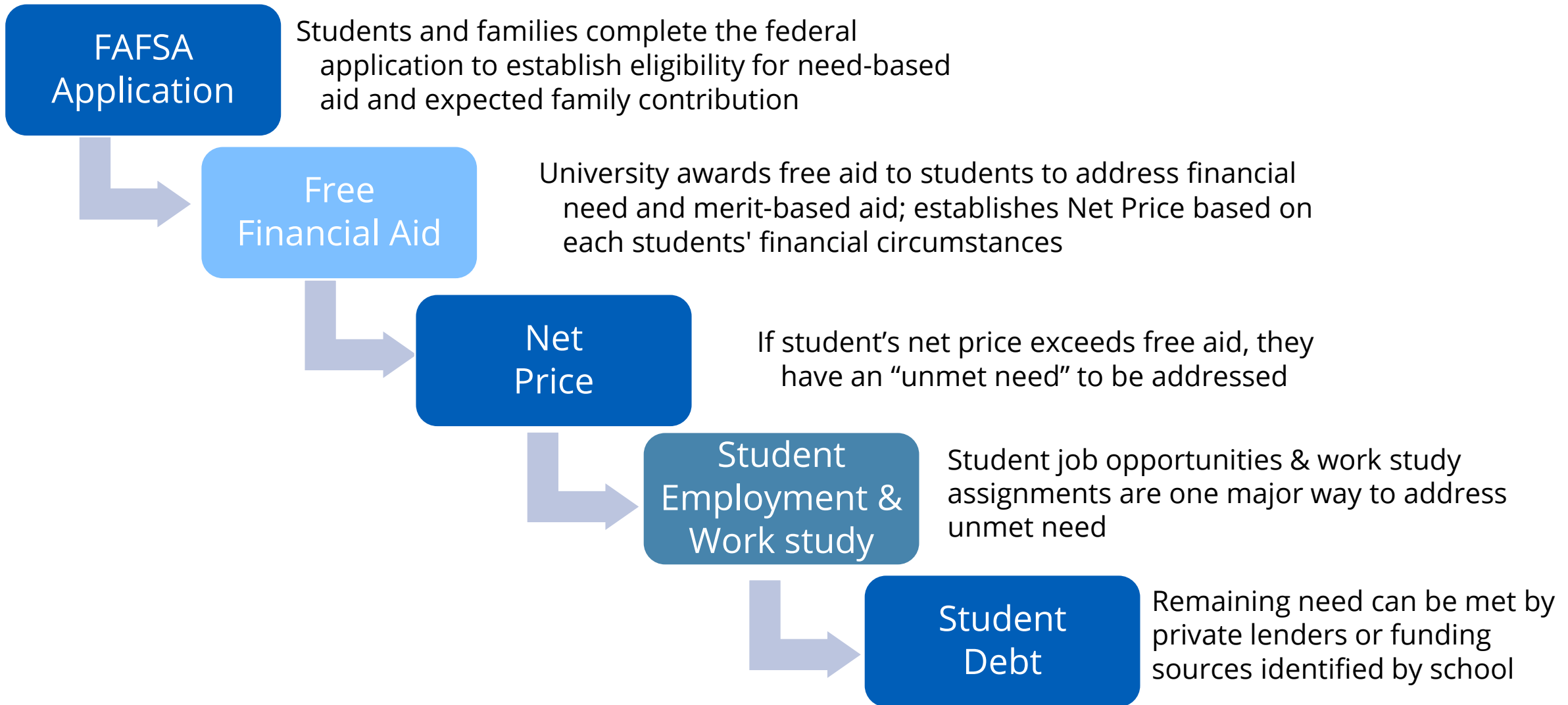


Depending on campus, **24% to 50%** of in state undergraduates, or **~15k** students, receive Pell Grants - financial need consistently remains large



UMass strategy has succeeded in holding average student debt at graduation flat for a decade at **\$31,200** - a real decline in debt in inflation-adjusted dollars

How you pay for college 101



Understanding the components of financial aid

University-generated aid is primarily awarded to students as grants, scholarships, and credits.

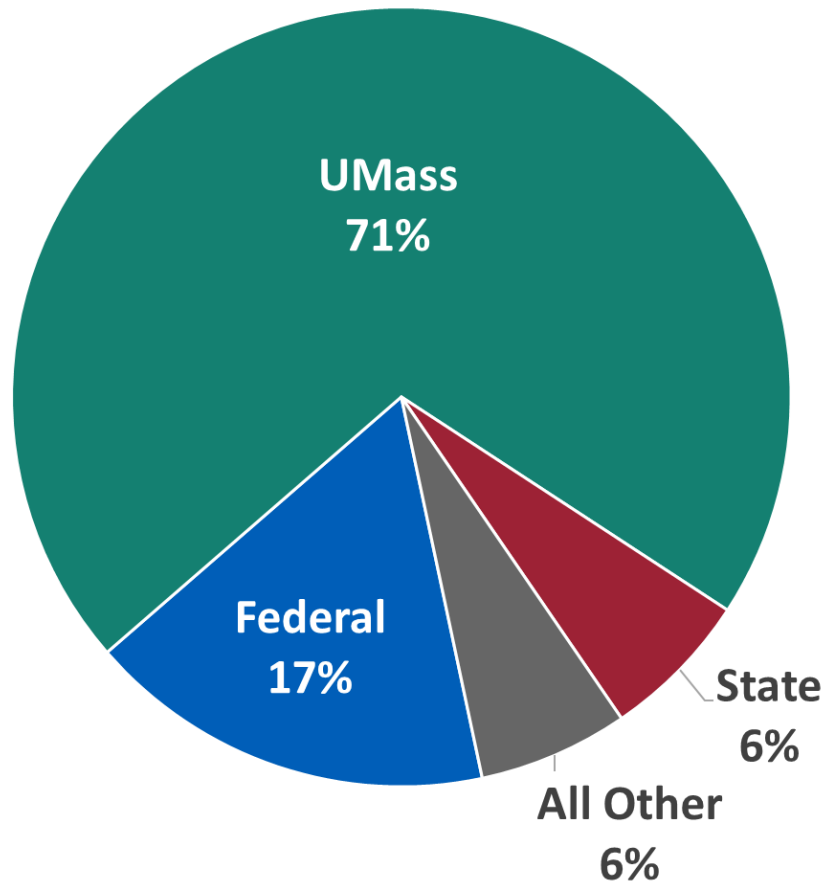
Free Financial Aid

- **Grants/Scholarships** – financial aid to students which does not have to be repaid
- **Waivers/Credits** – targeted and need-based discounts that directly reduce a student's bill
 - UMass-generated aid (**\$373M**) includes institutional financial need-based programs and merit aid such as Chancellor's Scholarships awarded based on strong academic achievement and personal achievement
 - Federal aid (**\$90M**) such as Federal Pell Grants awarded based on financial need
 - State aid (**\$33M**) such as MASSGrant/Plus awarded based on financial need

Student Employment & Work Study

- On- or off-campus jobs to earn money to pay for school

UMass students' largest source of free aid ... is *UMass-generated* aid

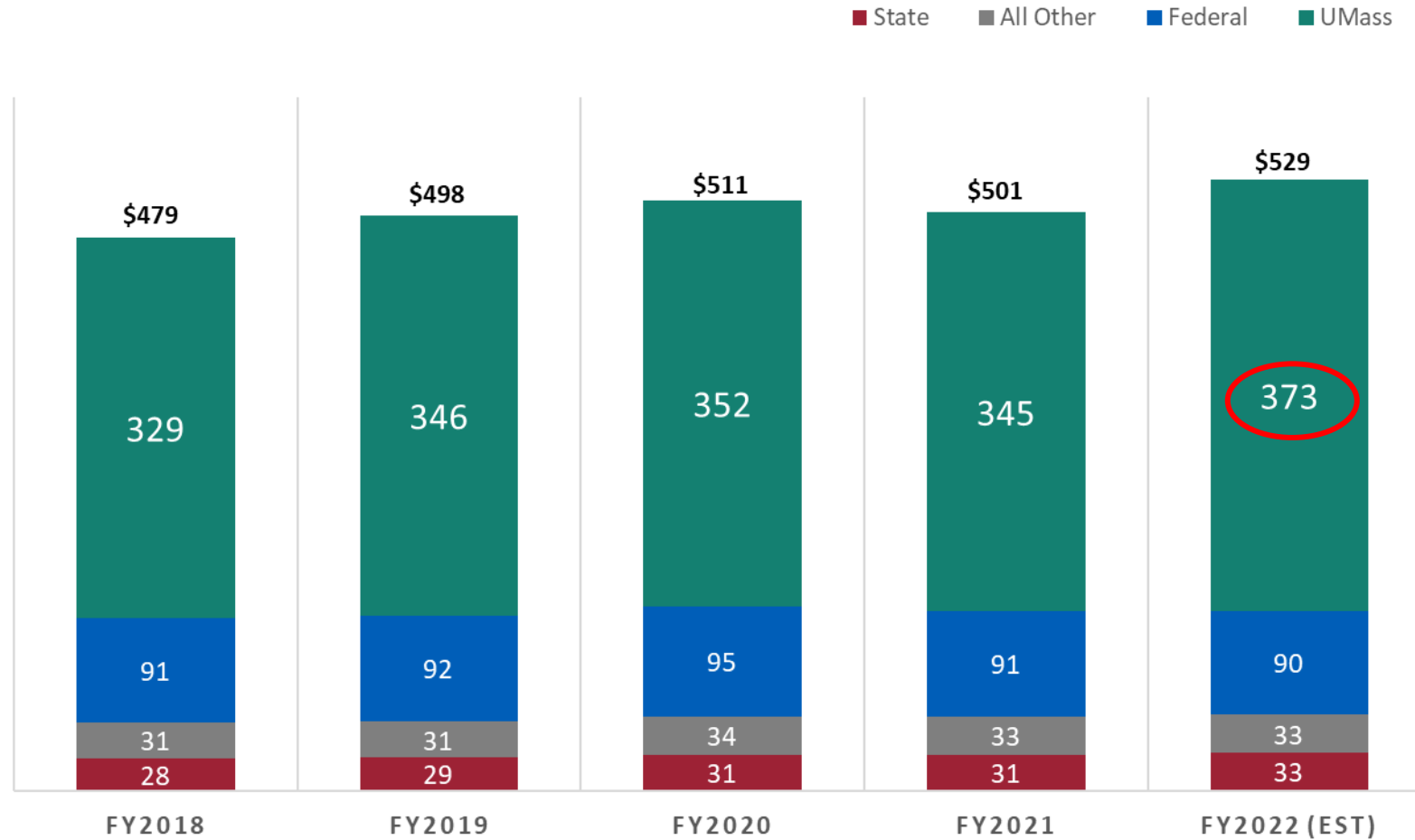


For Fiscal Year 2022:

- 71% (\$373M) was University-generated financial aid, including grants, scholarships & credits
- 17% (\$90M) Federal free aid, largely Pell grants
- 6% (\$33M) State free aid
- 6% (\$33M) Private free aid

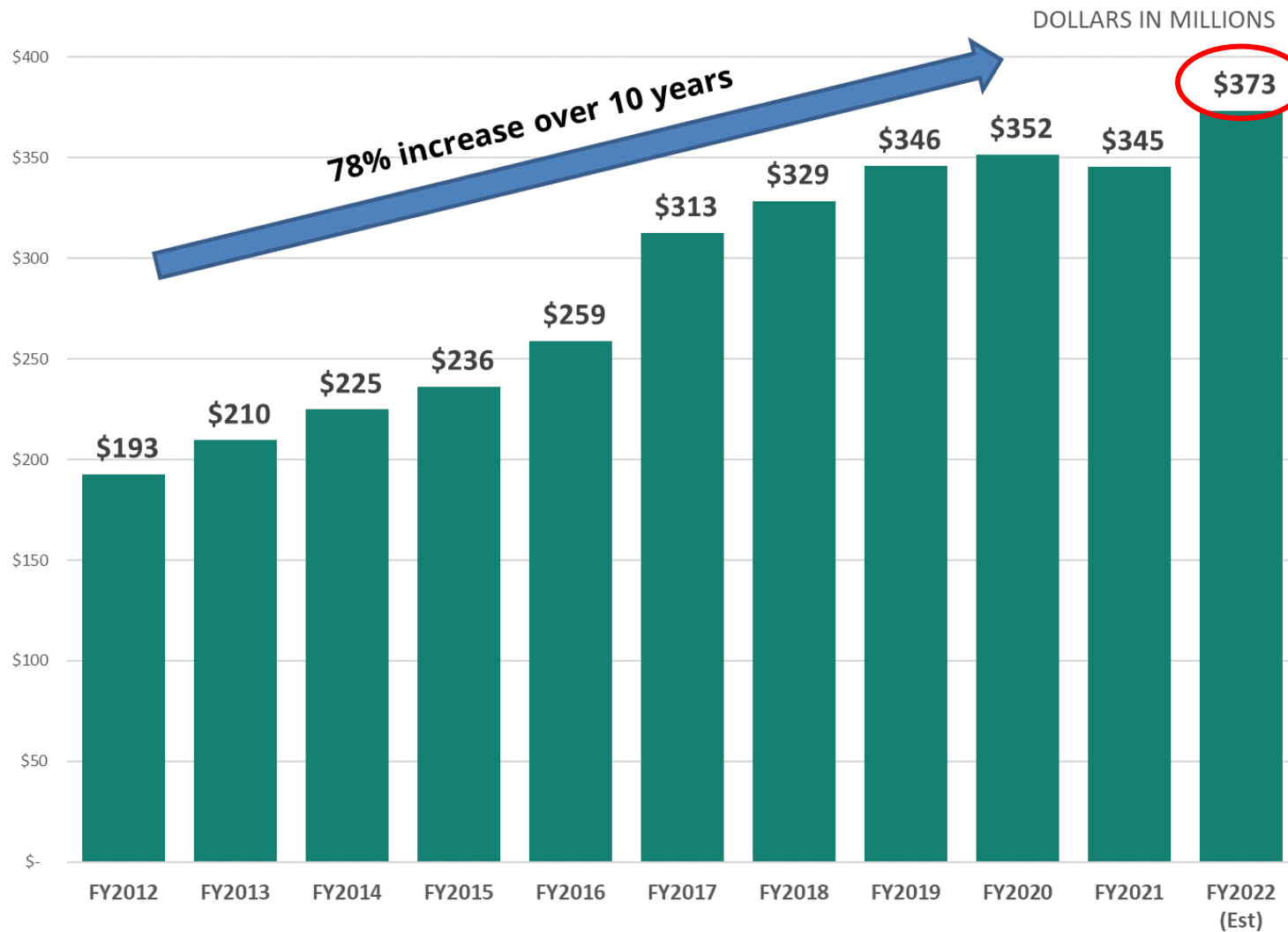
UMass has steadily increased University-generated aid

DOLLARS IN MILLIONS



- University-generated financial aid grew nearly **20%** in the last five years ...
- ... while all other sources remained nearly flat

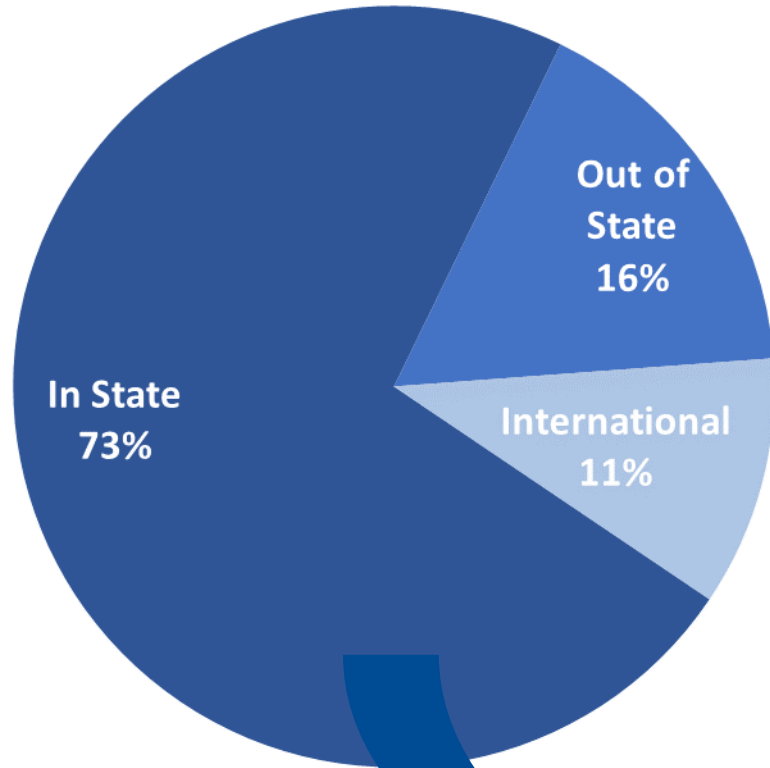
Since 2012, UMass has grown aid nearly 2.5X as fast as tuition & fees



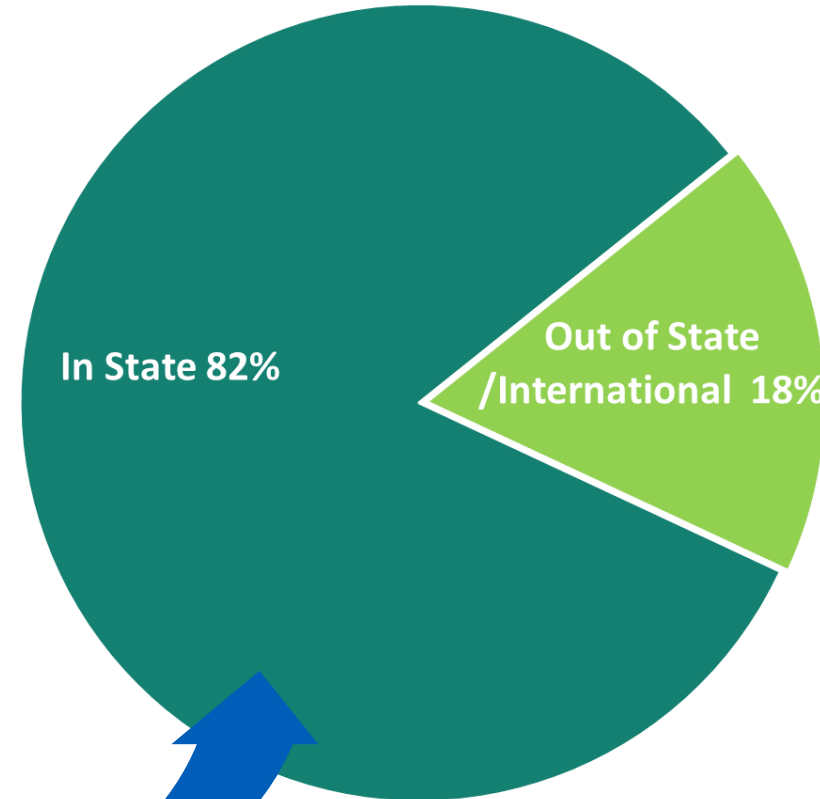
- 78% growth in University-generated financial aid over 10 years
- Compared to 32% growth in tuition & fee rates in this time

UMass aid strategy strongly benefits in state students

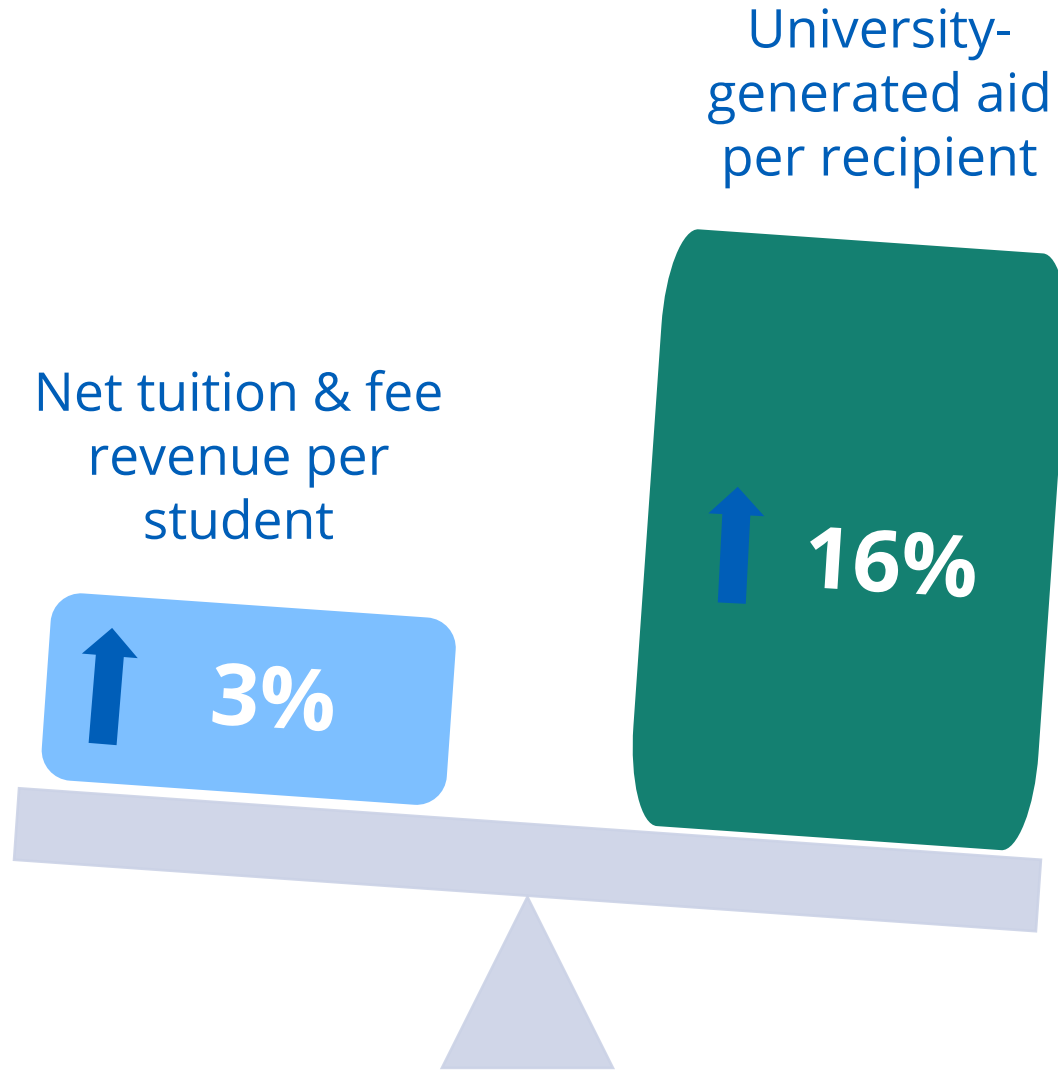
Shares of Total Enrollment



Who Receives University-Generated Aid?



Since 2018, UMass has grown aid per student 5X as fast as tuition & fees revenue



- The rate of aid growth eclipsing tuition revenue growth is fueling affordability for students and families
- Tuition revenue remains the primary funding source for university-generated aid

UMass faces limits on growing University-generated aid

- University-generated aid can and does help UMass "**share the pie**" more equitably
- Must pursue many strategies to **grow the pie**, including through increased Commonwealth support - because investing in UMass students invests in Massachusetts' future
- Major constraints on how much more UMass can continue to increase university-generated free aid through strategic pricing and discounting include:
 - Student mix: Further increasing the number of "full pay" students, including out of state and international, could reduce available slots for in state students
 - Fiscal sustainability: University-generated aid spreads costs and aid more equitably among those able to pay full price and those with financial need ... but doesn't grow net revenue
 - Demographics: UMass faces growing competition for enrollment and on pricing from competitors, especially as the region's college-aged student population continues to decline
- **Bottom line:** UMass needs the \$200M+ Fair Share investment to continue strong track record of access and affordability, especially for in state students

#5. FY22 Financial Results & FY23 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.



\$3.8 billion annual FY23 budget



\$664 million in state appropriation
(not including fringe)



Nearly 74,000 students by headcount
& **19,000** new graduates annually



\$137 million average
monthly payroll



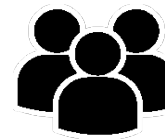
\$373 million in University-
generated financial aid



\$76 million average monthly
spend with over **27,000** vendors



\$752 million in annual research &
development



24,000 employees (including
students), **3rd largest** employer
in Massachusetts

FY22 Financial Results

FY22 Year End Results

All campuses experienced improved operating margin from budget.

(\$ in Thousands)

Campus	FY22: Actuals			
	Total Revenue	Total Expenses	OM\$	OM%
Amherst	1,514,816	1,409,590	105,226	6.9%
Boston	486,208	481,849	4,359	0.9%
Dartmouth	264,819	262,950	1,869	0.7%
Lowell	538,248	533,458	4,790	0.9%
President's Office	105,949	96,969	8,980	8.5%
Subtotal	2,910,040	2,784,816	125,224	4.3%
Chan Medical School	1,029,574	1,007,678	21,896	2.1%
Total	3,853,095	3,705,975	147,120	3.8%

UMass Global	101,934	120,554	(18,620)	-18.3%
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Total (1)	3,955,029	3,826,529	128,500	3.2%
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(1) Does not include impacts of GASB 68 & 75; OM revenue excludes unrealized gains/losses; Inter-campus eliminations are included in "Total"

Factors driving improved operating margin:

- Tuition & Fees: net revenues increased based on stronger enrollment and occupancy
- Grants: additional grants at all campuses offset by some expenses in support of additional grant activity
- State Funding: funding for collective bargaining parameters, mental health funding and associated fringe
- Salaries & Fringe: higher vacancy levels due to a difficult labor market
- Non-Personnel: lower than projected, helping to improve year end results

One Time Federal Stimulus Revenue:

- Last tranche, \$70 million, from Federal institutional HEERF (total of \$146 million received)

Fiscal Health Scorecard

Analysis of University's financial indicators compared to other Aa2 peers.

MOODY'S
Aa2 (Stable)

Factor	FY22	Component Score		Aa2 Median
Scale: Operating Revenue	\$3.9B	Aaa	●	\$2.1B
Operating Margin	3.2%		●	6.0%
Operating Cash Flow Margin	15.7%	Aa	✓	13.8%
Liquidity: Cash & Investments	\$3.0B	Aaa	●	\$2.7B
Cash & Investments to Operating Expenses	0.8x	Aa	✓	1.3x
Leverage: Cash & Investments to Adjusted Debt	0.6x	A	●	0.8x
Coverage: Annual Debt Service	2.8x	Aa	✓	3.3x
Financial Policy & Strategy	N/A	Aa	✓	
Weighted Scorecard Indicated Rating		Aa3	●	
Other considerations: Management, fiscal discipline, state support			●	
Assigned Rating				Aa2

Key	
Above Aa	●
At Aa	✓
Below Aa	●

FY23 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:

- ✓ [FY23 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

FY23 University Budget



\$3.8 billion annual FY23 budget



\$648 million in state appropriation
(not including fringe, ARPA)



0.7%; \$28.5 million operating margin
FY22 Comparison: Budget = 0.8%; Q3 = 1.9%



65,090 student FTEs;
increase of 0.5%



Tuition voted in April 2022
2.5% increase for in state undergraduates; 2.5-3.0% for out of state and graduates



15,492 employee FTEs;
increase of 3.2%

FY23 Budget Overview

Key Takeaways

- **Sound budget plan** as we emerge from the pandemic – balancing demographic challenges, affordability, and inflationary pressure
- Continues the innovative stewardship that has kept UMass **financially strong**
- **Increased State support** (direct appropriation & MASSGrant Plus); modest tuition increases
- Enrollment growth of 0.5% and stronger housing occupancy
- Staffing levels reflect growth, but are challenged by market hiring conditions

Next Steps

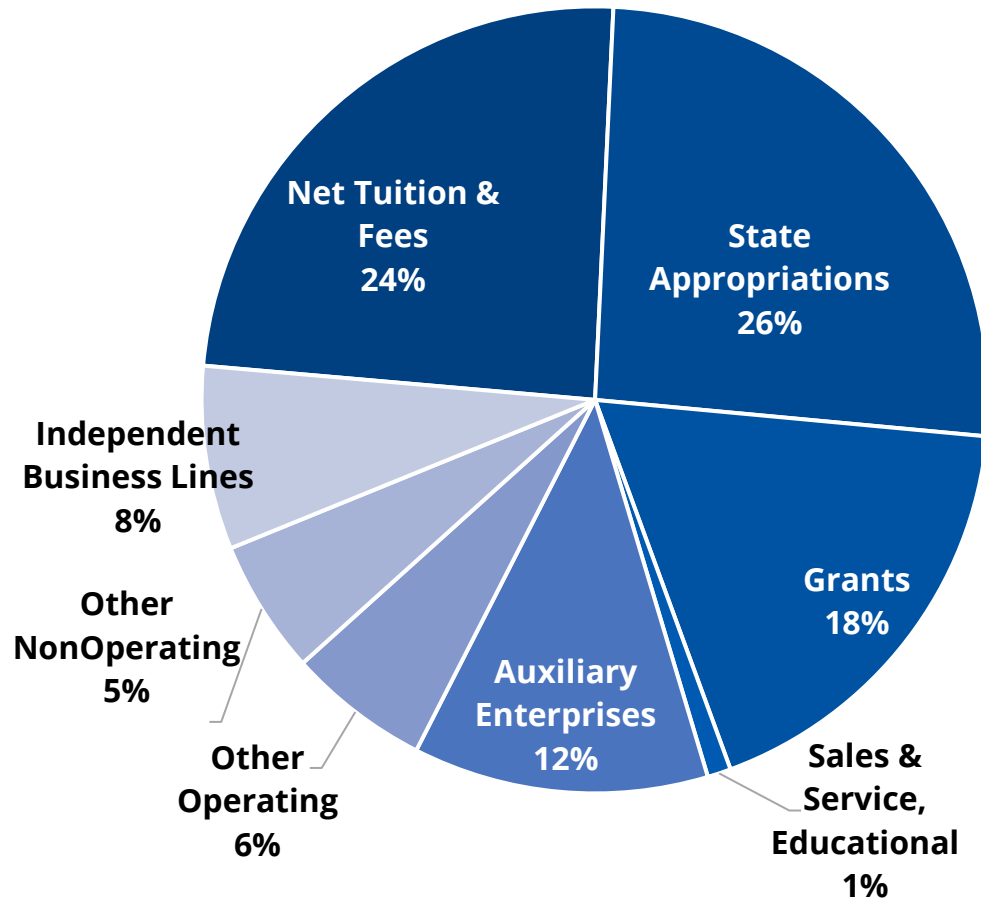
- Active management **ensures path for long-term financial sustainably**; improving all key financial measures
- Utilize **Strategic Planning Analytics & Reporting for Campuses (SPARC)** dashboard to support stewardship; expand to include Auxiliary
- Enrollment & Occupancy:
 - Real-time tracking of registrations and occupancy
 - Use Online Only modality (campus based and UMass Global) to **assess enrollment opportunities**
- Next A&F Committee:
 - Update on University enrollment / occupancy

FY23 Budget: Assumptions

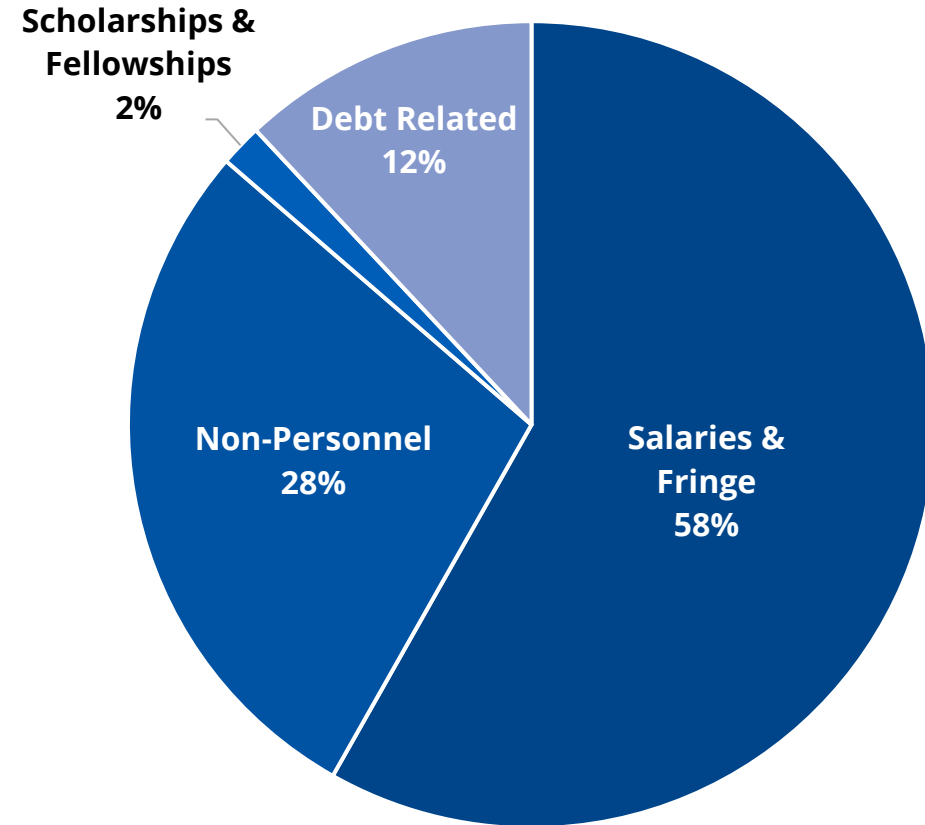
Tuition & Fees	In State UG: 2.5% Out of State UG: UMB, UMD, UML 2.5%; UMA 3% Graduate: UMA, UMB, UML, UMCMS: 2.5%; UMD 0% Mandatory Fees: Tech Fee \$100 increase
Enrollment	65,090 FTEs; +0.5%
Staffing	15,492 FTEs; +3.2%
State Appropriation	FY23 budget adopted by the Legislature; ARPA allocation; provisional fringe rate, collective bargaining
Collective Bargaining	2% increase (final year of contract period) Incremental Cost = \$33.7 million; State share = \$13.0 million

FY23 Budget: University Revenue & Expenses

FY23 Revenue Categories = \$3.8 billion



FY23 Expense Categories = \$3.8 billion



FY23: Quarterly Reporting

Board Meeting: September 21st

- *Initial reporting on enrollment*
- Classes Begin: Dartmouth, Lowell: September 1st; Amherst, Boston: September 6th
- Add/Drop Ends: by September 15th
- Present UMass Global budget

Board Meeting: March/April 2023

- *Begin tracking Fall 23 (FY24) admission data*
- Spring Classes Begin:
 - Amherst, Boston: January 23rd
 - Lowell, Dartmouth: January 17th
- Q2 Report completed: February 2023

July-Sept.

Oct. – Dec.

Jan. - March

Apr. – Jun.

Board Meeting: December 14th

- *Refresh five-year Forecast*
- Q1 Report completed: November 2022; Impact of Fall enrollment & management of FY23

Board Meeting: June 2023

- *Tracking enrollment & admissions for Fall 2023*
- FY24 budget development & scenario planning
- Q3 Report completed: May 2023

FY23 Q1 Projection (as of 9/30/22)

- **Amherst:** better OOS enrollment & occupancy; increased state appropriation; position vacancies
- **Boston:** better OOS enrollment; improved revenue due to pricing structure; increased state appropriation
- **Dartmouth:** lower UG enrollment offset by increased graduate enrollment & state appropriation
- **Lowell:** better tuition revenue due to student mix; increased state appropriation

Campus	FY23: Budget				FY23: Q1 Projection				Projection
	Total Revenue	Total Expenses	OM\$	OM%	Total Revenue	Total Expenses	OM\$	OM%	Vs. Budget OM \$ Change
Amherst	1,517,319	1,510,333	6,985	0.5%	1,615,270	1,547,122	68,148	4.2%	61,163
Boston	470,496	470,497	-	0.0%	488,005	481,408	6,597	1.4%	6,597
Dartmouth	258,763	258,763	-	0.0%	270,589	267,908	2,681	1.0%	2,681
Lowell	529,157	529,157	-	0.0%	541,612	537,680	3,932	0.7%	3,932
President's Office	99,837	97,830	2,007	2.0%	101,121	96,331	4,790	4.7%	2,783
Subtotal	2,925,572	2,916,580	8,992	0.3%	3,016,597	2,930,449	86,148	2.9%	77,156
Chan Medical School	980,427	960,876	19,551	2.0%	1,030,784	1,010,362	20,422	2.0%	871
Total	3,822,709	3,794,166	28,544	0.7%	3,964,091	3,857,521	106,570	2.7%	78,026

* Does not include impacts of GASB 68 & 75; OM revenue excludes unrealized gains/losses; Inter-campus eliminations are included in "Total"

Note: Excludes UMass Global

University: Enrollment

Total Enrollment (FTE):

64,605 FTEs ▼ -0.3%

Undergraduate New:

▲ 872 or 7%

Undergraduate Continuing:

▼ 1,008 or -3%

By Career:

University Students (FTEs)	Actual	Budget FY2023		Actual	Proj.
	FY2022	Fall	Spring	Fall	Spring
Undergraduate	47,746	47,574	43,901	47,610	43,985
% Change	-3.6%	-0.4%		-0.3%	
Graduate	10,395	10,760	10,418	11,094	10,676
% Change	1.9%	3.5%		6.7%	
Continuing Ed	6,321	6,431	6,274	5,560	5,400
% Change	5.1%	1.7%		-12.0%	
Law	326	325	296	341	310
% Change	-0.5%	-0.3%		4.6%	
Total	64,789	65,090	60,888	64,605	60,371
% Change	-1.9%	0.5%		-0.3%	

By Campus:

Students (FTEs)	Budget	Actual
	FY2023	FY2023
Amherst	30,290	30,190
% Change		1.3%
Boston	13,216	12,875
% Change		-0.6%
Dartmouth	6,408	6,314
% Change		-2.2%
Lowell	13,919	13,925
% Change		-2.8%
Chan Medical School	1,257	1,301
% Change		4.4%
University	65,090	64,605
% Change		-0.3%

Note: Excludes UMass Global

University: Occupancy

Fall Occupancy Comparison (as of 9/19/22)

Campus Beds		Budget FY23		Actuals FY23	
Amherst	13,500	105%	14,200	106%	14,270
Dartmouth*	2,014	83%	1,670	81%	1,640
Lowell	4,600	91%	4,200	87%	4,005
P3 Beds		Budget FY23		Actuals FY23	
Boston	1,077	100%	1,077	102%	1,099
Dartmouth	1,202	88%	1,054	91%	1,094

Variance	
70	1%
(30)	-1%
(195)	-4%

Spring Occupancy

Budget FY23	
97%	13,131
83%	1,670
91%	4,200

Variance	
22	2%
40	3%

Budget FY23	
100%	1,077
88%	1,054

*800 beds from the Cedar Dells (campus-owned apartment style residence halls) have been removed as a housing option at the Dartmouth campus beginning in FY23 due to significant deferred maintenance needs

Federal Stimulus



Federal Stimulus Overview

All funding used through June 30, 2022 has been subject to audit by KPMG. There have been no findings associated with the spending of the federal stimulus funds.

Federal Stimulus Funds: received through CARES, HEERF I, & HEERF II and utilized from FY21-23

Student Aid: \$113.5M across multiple rounds; Emergency grants to students

- Prioritize “exceptional need”; includes but not restricted to students receiving Pell grants
- Not conditioned on continued enrollment
- Can satisfy outstanding balances with consent
- Not considered financial aid or taxable income

Institutional Allocation: \$142.0M across multiple rounds

- Recovers a portion of lost revenue and additional costs incurred due to pandemic

Federal Stimulus					
<i>(dollars in thousands)</i>					
Campus	FY20 Actual	FY21 Actual	FY22 Actual	FY23 Estimate	Total
Student Aid	14,717	28,889	67,162	2,780	113,549
Institutional Allocation	13,801	55,830	69,612	2,743	141,985
Total Stimulus	28,519	84,719	136,773	5,523	255,534

Note: Does not include \$5.7M in supplemental funding (GEER, FIPSI, MSI, SIP, SA); Does not include additional state funds received for Endowment Incentive Match, COVID Mitigation, or specific programmatic earmarks.

#6. Multi-Year Review & Financial Forecast

FY18-28



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:

- ✓ [FY24-28 Forecast](#)



Key Takeaways of the FY24 – FY28 Forecast

Affordability:

- Tuition: modest increases (2.5% for in state undergraduates); forecasted tuition increases needs Board approval
- Financial Aid: continued University investment
- Sensitivity Analysis: estimates for 'swings' in major assumptions (examples: enrollment, occupancy)

Shared Services, Innovation & Collaboration:

- UPST: visibility on system-wide sourcing through adoption tracker will help identify savings areas
- EST: automation and service & quality improvements for more efficient operations
- ERM: mitigation of risks critical to financial sustainability; development of the forecast is a strategy

Transparency:

- Revenue & Expenses: grow on average 4% annually
- Strategies: to achieve forecasted enrollment, occupancy and 2% operating margin
- Enrollment: international category; 'New' undergrads by first time freshmen & transfers; Pell eligibility
- Deferred Maintenance: Targets compared to investment assumptions

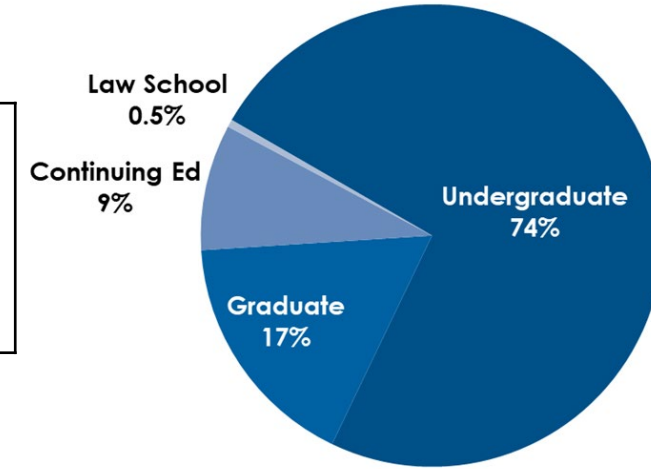
Alignment with State:

- State Appropriation: additional 1% aligns with typical inflationary increases provided
- Fringe: growth rate based on 5-year average; helps smooth years of unusual increases
- Collective Bargaining: new contract begins FY24; State parameters not yet provided; used 2.5% assumption

Enrollment

Validating near-term enrollment will be critical for FY24 budget planning.

AAGR	Total	Undergraduate	Graduate
FY24-28:	0.7	0.5	1.5
FY21-23:	-0.7	-1.8	3.9
FY18-20:	1.1	1.7	-0.4



Students FTEs	Actual		Forecast				
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
University	64,789	64,603	64,682	65,644	66,457	66,678	66,935
% Change	-1.9%	-0.3%	0.1%	1.5%	1.2%	0.3%	0.4%

Note: excludes UMass Global

Operating Margin: required to achieve 2% by FY25

Challenging strategies embedded in each forecast year to achieve 2% margin by FY25.

	Actual	2023		Forecast				
	FY2022	Budget	Projected	FY2024	FY2025	FY2026	FY2027	FY2028
<i>\$ in Thousands</i>								
Amherst	6.9%	0.5%	4.2%	2.2%	2.0%	2.0%	2.0%	2.0%
	105,225	6,985	68,148	35,601	33,161	34,541	35,258	38,010
Boston	0.9%	0.0%	1.4%	2.0%	2.0%	2.0%	2.0%	2.0%
	4,359	-	6,597	9,818	10,276	10,627	10,963	11,304
Dartmouth	0.7%	0.0%	1.0%	1.0%	2.0%	2.0%	2.0%	2.0%
	1,869	-	2,681	2,594	5,500	5,663	5,834	6,020
Lowell	0.9%	0.0%	0.7%	1.5%	2.0%	2.0%	2.0%	2.0%
	4,790	-	3,933	8,414	11,748	12,227	12,711	13,182
President's Office	8.5%	2.0%	4.7%	2.0%	2.0%	2.0%	2.0%	2.0%
	8,980	2,007	4,790	2,041	2,079	2,114	2,156	2,191
Chan Medical	2.1%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
	21,896	19,551	20,422	21,311	22,279	23,844	24,650	25,197
University	3.8%	0.7%	2.7%	2.0%	2.0%	2.0%	2.0%	2.0%
	147,120	28,543	106,570	79,779	85,044	89,016	91,573	95,904

Note: excludes UMass Global

Revenue



Assumptions

Revenue Assumptions		FY24-28
Net Tuition & Fees		
Enrollment	Campus Specific	
Tuition Increase:		
In State	2.5% annually	
Out of State UG	Campus Specific	
Graduate	Campus Specific	
CE	Campus Specific	
Auxiliary Enterprises		
Occupancy	Campus Specific	
Rate Increase:		
Housing	Campus Specific	
Dining	Campus Specific	
Parking	Campus Specific	
State Appropriations		
Base	No earmarks, 1% annually	
Collective Bargaining	2.5% annually	

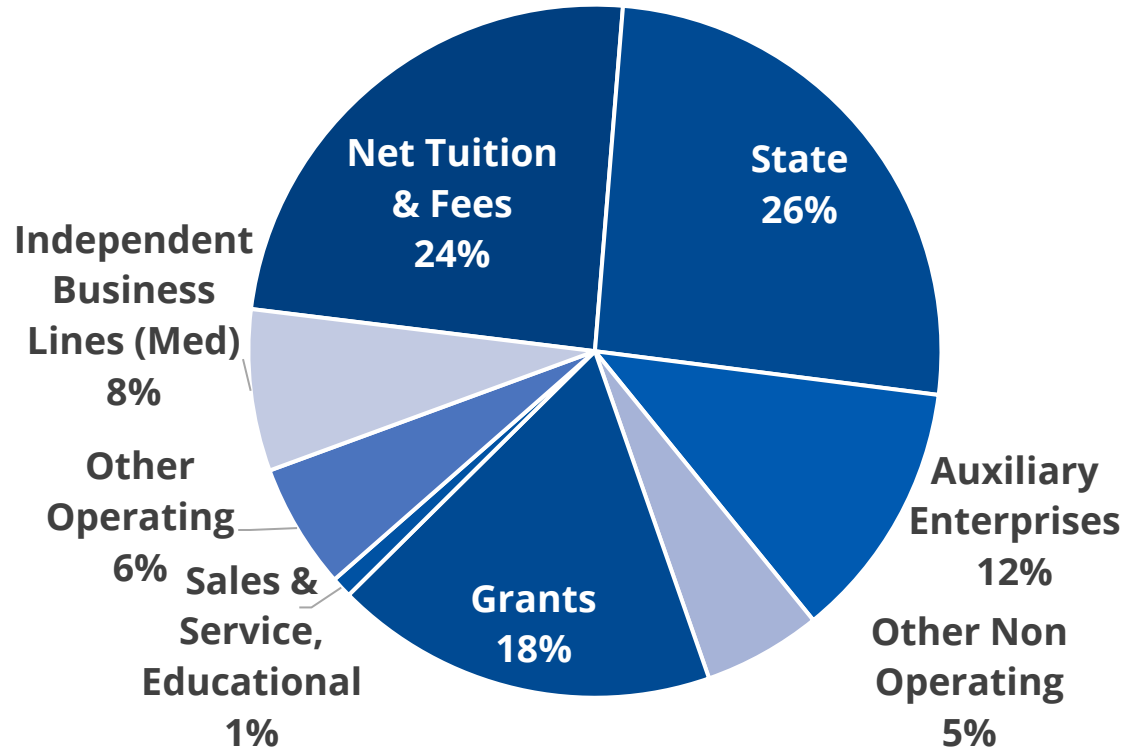
- **Starting Point:**
 - Utilize FY23 budget as starting point; adjustments made based on Q1 projection
 - Excludes UMass Global

- **Assumptions:**
 - Provided by UMPO for key drivers
 - Campus specific strategic plans drive underlying assumptions
 - Enrollment strategies vary by campus

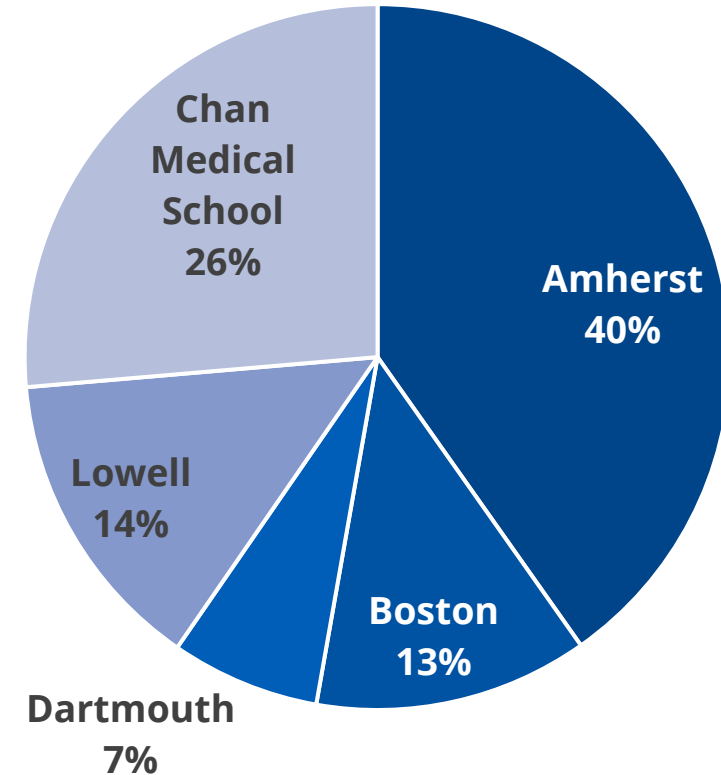
- **Operating margin:** Achieve 2% by FY25

University Revenue: by Category & Campus

FY23 Revenue Categories = \$3.8 billion

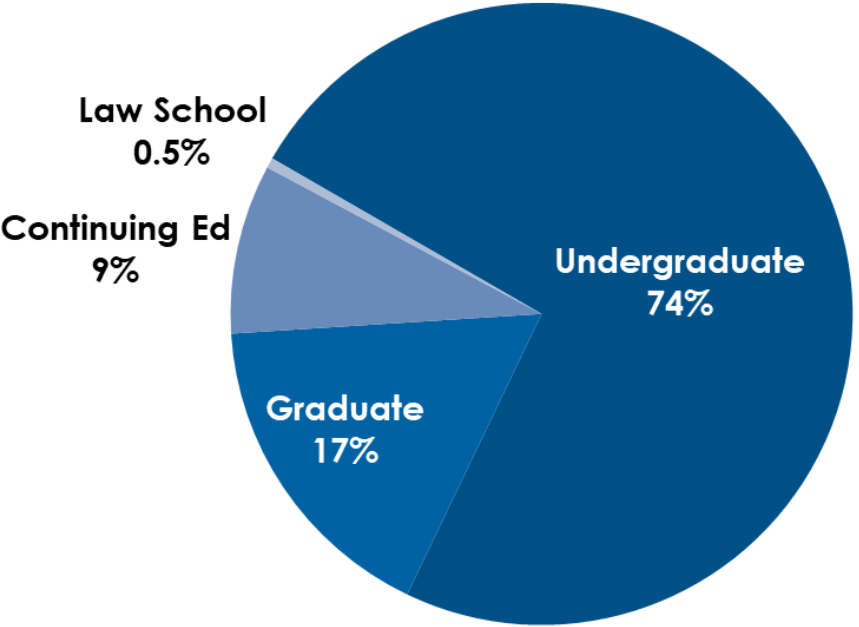


FY23 Campus Revenue



Note: excludes UMass Global

Enrollment by Career



Students (FTEs) FY2023	
Undergraduate	47,610
Graduate	11,099
Continuing Ed	5,552
Law School	341
University	64,602

University

AAGR	FY18-20	FY21-23	FY24-28
Undergraduate	1.7%	-1.8%	0.5%
Graduate	-0.4%	3.9%	1.5%
Continuing Ed	-1.6%	-0.1%	0.8%
Law School	16.0%	12.4%	1.3%
Total	1.1%	-0.7%	0.7%

Note: excludes UMass Global

Amherst

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
Undergraduate	23,722	2.3%	0.1%	0.1%
Graduate	3,840	0.4%	1.0%	0.0%
Continuing Ed	2,626	0.7%	3.4%	0.0%
Total	30,188	1.9%	0.4%	0.1%

Boston

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
Undergraduate	9,997	2.3%	-0.9%	0.5%
Graduate	1,829	-0.5%	1.6%	1.8%
Continuing Ed	1,050	-8.5%	0.1%	0.5%
Total	12,876	0.8%	-0.9%	0.7%

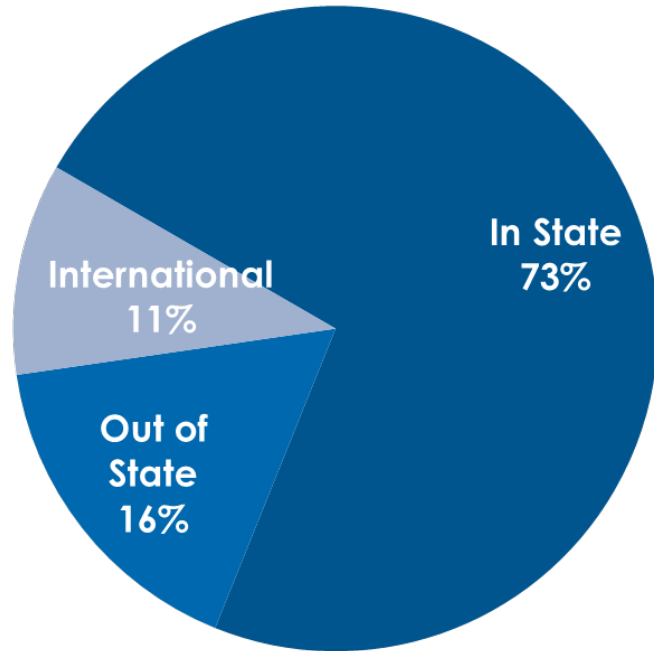
Dartmouth

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
Undergraduate	4,422	-2.9%	-5.6%	-0.0%
Graduate	697	-12.3%	9.6%	8.2%
Continuing Ed	853	6.5%	-2.0%	4.0%
Law School	341	16.0%	12.4%	1.3%
Total	6,313	-2.1%	-3.2%	1.6%

Lowell

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
Undergraduate	9,469	2.4%	-4.8%	1.8%
Graduate	3,432	-0.9%	9.2%	1.0%
Continuing Ed	1,024	-3.7%	-3.6%	0.0%
Total	13,925	1.3%	-2.0%	1.4%

Enrollment by Residency



Students (FTEs) FY2023

In State	47,009
Out of State	10,726
International	6,866
University	64,602

University

AAGR	FY18-20	FY21-23	FY24-28
In State	1.6%	-2.0%	0.4%
Out of State	0.4%	3.5%	1.8%
International	-1.2%	1.7%	1.3%
Total	1.1%	-0.9%	0.7%

Note: excludes UMass Global

Amherst

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
In State	20,115	2.3%	-1.0%	-0.0%
Out of State	6,435	-1.9%	3.9%	0.8%
International	3,638	6.7%	3.3%	-0.4%
Total	30,188	1.9%	0.4%	0.1%

Boston

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
In State	10,056	1.9%	-1.8%	0.2%
Out of State	1,377	7.8%	17.2%	1.5%
International	1,443	-7.6%	-5.2%	3.2%
Total	12,876	0.8%	-0.9%	0.7%

Dartmouth*

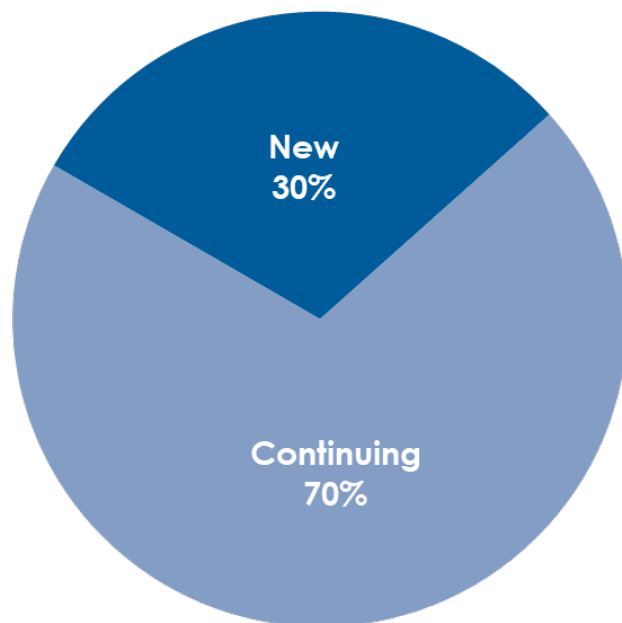
	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
In State	5,014	-3.2%	-4.8%	-0.2%
Out of State	911	5.4%	-3.6%	6.7%
International	389	-6.4%	166.3%	9.9%
Total	6,314	-2.1%	-3.2%	1.6%

Lowell

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
In State	11,004	2.7%	-3.2%	1.5%
Out of State	1,637	-1.2%	1.4%	1.2%
International	1,284	-8.9%	6.0%	1.1%
Total	13,925	1.3%	-2.0%	1.4%

*International enrollment grew by 330 FTEs in FY23, largely attributed to strategic growth in graduate programs.

Undergraduate Enrollment by New vs Continuing



UG (FTEs)	FY2023
New	14,245
<i>First-time Freshmen</i>	11,472
<i>Transfer</i>	2,773
Continuing	33,364
Undergrad Total	47,609

University

AAGR	FY18-20	FY21-23	FY24-28
New	5.4%	-3.7%	0.7%
<i>First-time Freshmen</i>			0.9%
<i>Transfer</i>			-0.2%
Continuing	0.3%	-0.7%	-0.0%
Total	1.7%	-1.8%	0.5%

Note: excludes UMass Global

Amherst

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
New	6,993	5.1%	-0.9%	-0.8%
<i>First-time Freshmen</i>				-0.9%
<i>Transfer</i>				-0.0%
Continuing	16,729	0.2%	0.7%	0.5%
UG Total	23,722	1.6%	0.1%	0.1%

Boston

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
New	3,244	7.8%	0.1%	0.5%
<i>First-time Freshmen</i>				0.6%
<i>Transfer</i>				0.2%
Continuing	6,753	0.7%	-1.3%	0.5%
UG Total	9,997	2.7%	-0.9%	0.5%

Dartmouth

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
New	1,506	1.4%	-4.2%	2.8%
<i>First-time Freshmen</i>				3.2%
<i>Transfer</i>				0.2%
Continuing	2,916	-5.5%	-4.7%	-1.6%
UG Total	4,422	-3.5%	-4.7%	-0.0%

Lowell

	FY23 FTEs	AAGR		
		FY18-20	FY21-23	FY24-28
New	2,502	6.4%	-7.9%	3.6%
<i>First-time Freshmen</i>				4.9%
<i>Transfer</i>				-1.1%
Continuing	6,966	3.3%	-3.5%	1.1%
UG Total	9,469	4.1%	-4.8%	1.8%

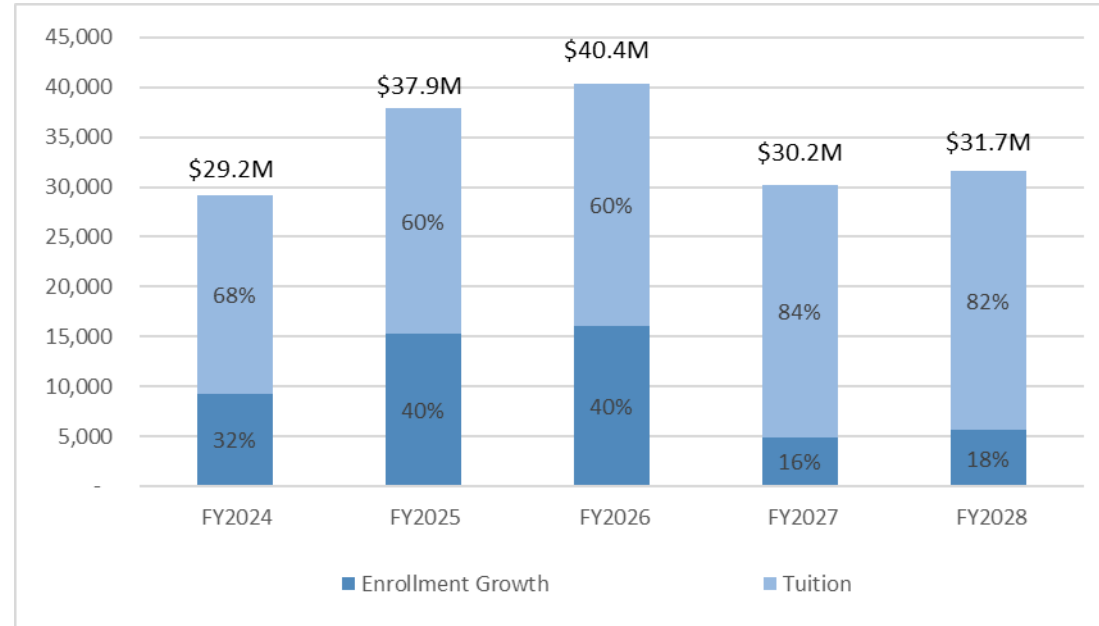
Tuition & Fees

- **Key Takeaway:** on average 29% of growth driven by enrollment with remainder driven by tuition increases
- **Enrollment Strategies:** vary by campus, career, residency

FY23 Budget	Avg % Revenue	AAGR
Total: \$934M	FY24-28: 24	FY24-28: 3.8
% of Rev: 24	FY21-23: 25	FY21-23: 0.6
	FY18-20: 26	FY18-20: 2.6

	Forecast Increases							
	(Rates shown below reflect FY23 approved tuition rates)							
	Undergraduate				Graduate			
	In State		Out of State		In State		Out of State	
Amherst	16,186	2.5%	37,405	3.0%	15,148	2.5%	34,542	3.0%
Boston	14,542	2.5%	35,515	3.0%	18,894	3.0%	36,879	3.0%
Dartmouth	14,179	2.5%	30,317	2.5%	16,390	0-1%*	29,578	0-1%
Lowell	15,462	2.5%	33,830	2.5%	14,956	2.5%	27,030	2.5%
Chan Medical	-	-	-	-	Varies	2.5%	Varies	2.5%

Growth in Tuition & Fee Revenue*:



*Dartmouth graduate increases forecasted as 0% in FY24-25 and 1% in FY26-28

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

Sensitivity Analysis: Tuition Rate Impacts Over Time

Tuition is nearly the largest source of revenue for the University; rate changes support a portion of fixed cost growth and investments in Financial Aid.

- Tuition increases are recurring and impact base revenue
- Year 1 impact of \$14.3 million or 0.4% of total revenue grows to \$222 million or 4.7 million of total revenue
- To a student, every 1% increase has an average impact of \$151 per year (before financial aid)

Gross Impact 2.5% In State Undergrad Tuition Increase					
	FY24	FY25	FY26	FY27	FY28
Year 1	14,343	14,343	14,343	14,343	14,343
Year 2		14,595	14,595	14,595	14,595
Year 3			15,011	15,011	15,011
Year 4				15,489	15,489
Year 5					15,920
Annual Total	14,343	28,938	43,948	59,437	75,357
Cumulative Total	14,343	43,280	87,229	146,666	222,024
% of Total Revenue	0.4%	1.0%	2.0%	3.2%	4.7%

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		FY23
Amherst	100%	104%
Dartmouth ⁺	80%	81%
Lowell	92%	87%

Fees	FY23 Housing	Housing Average	FY23 Dining	Dining Average
Amherst	7,840	3.0%	6,936	3.0%
Boston	-	-	6,000	2.0%
Dartmouth	10,543 [^]	2.5%	5,591	3.0%
Lowell	8,710	2.5%	5,220	3.0%

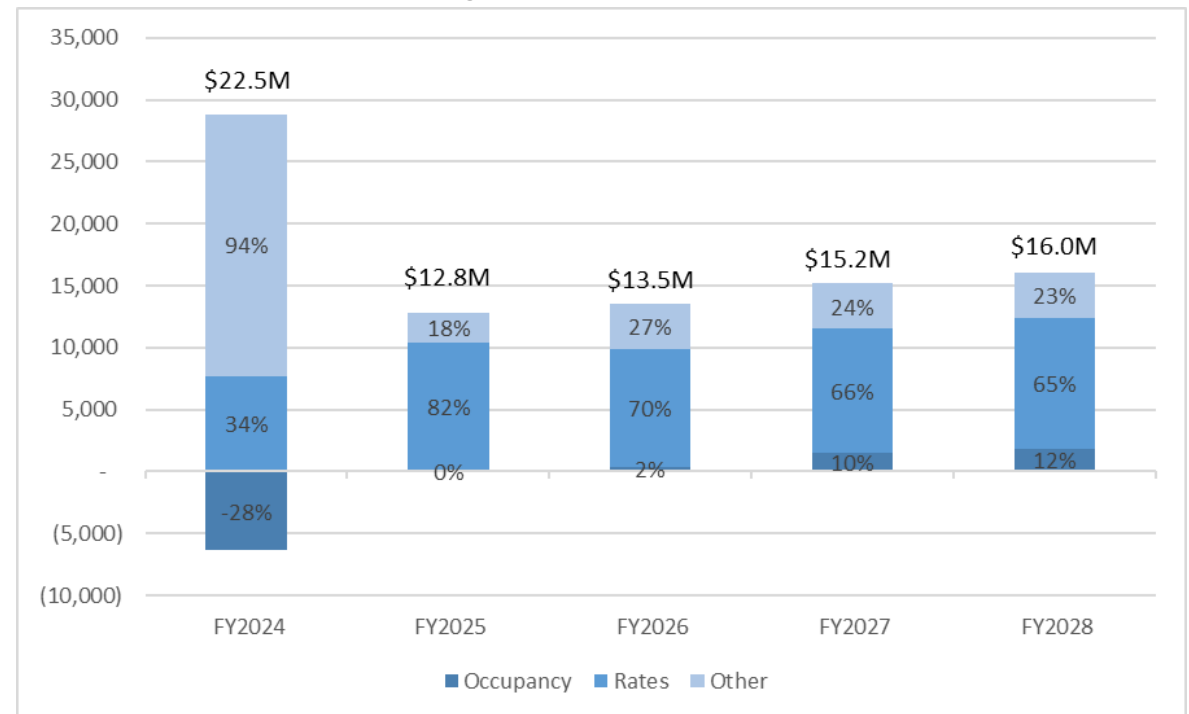
+800 beds from the Cedar Dells (campus-owned residence halls) have been removed as a housing option in FY23 due to deferred maintenance needs

[^]Campus owned housing rate

FY23 Budget	Avg % Revenue	AAGR*
Total: \$465M	FY24-28: 12	FY24-28: 3.2
% of Rev: 12	FY21-23: 9	FY20-23: 25.2
	FY18-20: 12	FY18-19: 4.9

*COVID year for Auxiliary began in FY20

Growth in Auxiliary Revenue:



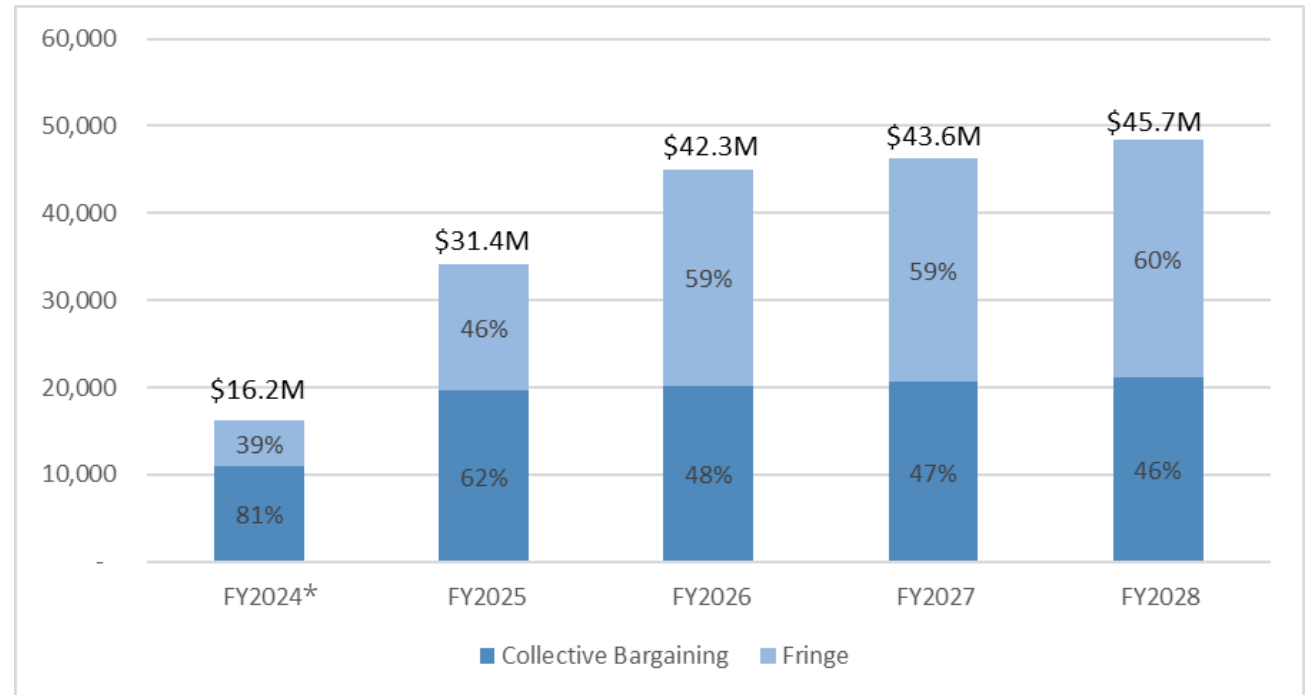
Other includes auxiliaries such as conferences, parking, retail dining, etc.
FY24 reflects decrease in occupancy due to beds coming offline at UMA.

State

- Key Takeaway:** State revenue grows to support increased fixed costs of collective bargaining & fringe; earmarks eliminated, and a 1% increase assumed annually
- Collective Bargaining:** 2.5% annual increases assumed; total annual cost of \$39M. State reimburses ~46% of total cost
- Fringe Benefits Rate:** on average 44% applied to salaries; rate grows annually by historical average of 2.3%; larger historical growth driven by higher fringe rate

<u>FY23 Budget</u>	<u>Avg % Revenue</u>	<u>AAGR</u>
Total: \$987M	FY24-28: 25	FY24-28: 3.4
% of Rev: 26	FY21-23: 24	FY21-23: 6.8
	FY18-20: 22	FY18-20: 4.9

Growth in State Revenue:



*FY24 reflects the removal of FY23 earmarks

Grants

Key Takeaways:

- 77% of grant revenue is attributed to Amherst and 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>FY23 Budget</u>	<u>Avg % Revenue</u>	<u>AAGR</u>
Total: \$688M	FY24-28: 20	FY24-28: 7.5
% of Rev: 18	FY21-23: 19	FY21-23: 6.0
	FY18-20: 17	FY18-20: 2.5

<i>\$ in Thousands</i>	FY24	FY25	FY26	FY27	FY28
Amherst	218,994	225,999	233,214	240,645	247,799
<i>% Change</i>	12%	3%	3%	3%	3%
<i>% of Total Revenue</i>	13%	13%	13%	13%	13%
Boston	68,818	70,731	74,703	77,946	81,488
<i>% Change</i>	11%	3%	6%	4%	5%
<i>% of Total Revenue</i>	14%	14%	14%	14%	14%
Dartmouth	21,858	23,661	24,636	24,267	24,021
<i>% Change</i>	1%	8%	4%	-1%	-1%
<i>% of Total Revenue</i>	8%	8%	8%	8%	8%
Lowell	92,861	100,737	106,935	113,204	118,767
<i>% Change</i>	13%	8%	6%	6%	5%
<i>% of Total Revenue</i>	17%	17%	18%	18%	18%
Chan Medical School	385,528	425,125	466,384	490,591	516,986
<i>% Change</i>	17%	10%	10%	5%	5%
<i>% of Total Revenue</i>	35%	37%	39%	39%	40%
University	784,996	842,874	902,426	943,138	985,475
<i>% Change</i>	14%	7%	7%	5%	4%
<i>% of Total Revenue</i>	19%	20%	20%	21%	21%



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>FY23 Budget</u>	<u>Avg % Revenue</u>	<u>AAGR</u>
Total: \$37M	FY24-28: 1	FY24-28: 5.3
% of Rev: 1	FY21-23: 1	FY21-23: 7.6
	FY18-20: 1	FY18-20: 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>FY23 Budget</u>	<u>Avg % Revenue</u>	<u>AAGR</u>
Total: \$225M	FY24-28: 6	FY24-28: 2.9
% of Rev: 6	FY21-23: 6	FY21-23: 9.9
	FY18-20: 7	FY18-20: -9.7

- **Other Non Operating:** includes gifts, investment income, endowment distribution for operations and federal aid including Pell grants

<u>FY23 Budget</u>	<u>Avg % Revenue</u>	<u>AAGR</u>
Total: \$211M	FY24-28: 6	FY24-28: 4.3
% of Rev: 6	FY21-23: 7	FY21-23: 1.9
	FY18-20: 6	FY18-20: 8.6

- **Independent Business Lines:** Chan Medical School Mass Biologics and Commonwealth Medicine

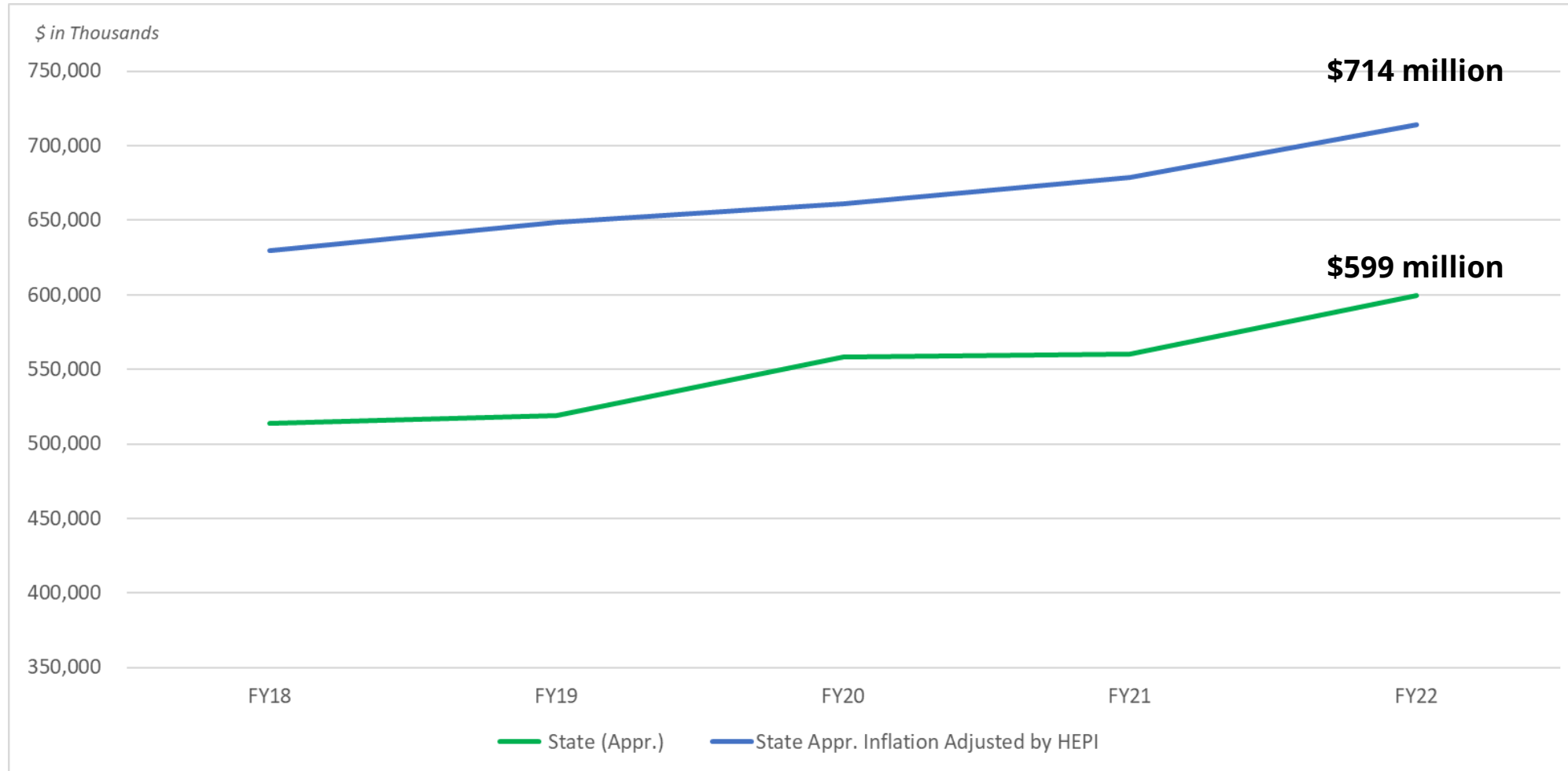
<u>FY23 Budget</u>	<u>Avg % Revenue</u>	<u>AAGR</u>
Total: \$289M	FY24-28: 7	FY24-28: 1.8
% of Rev: 8	FY21-23: 8	FY21-23: -4.0
	FY18-20: 9	FY18-20: 2.5

State Appropriation



State Appropriation Trend

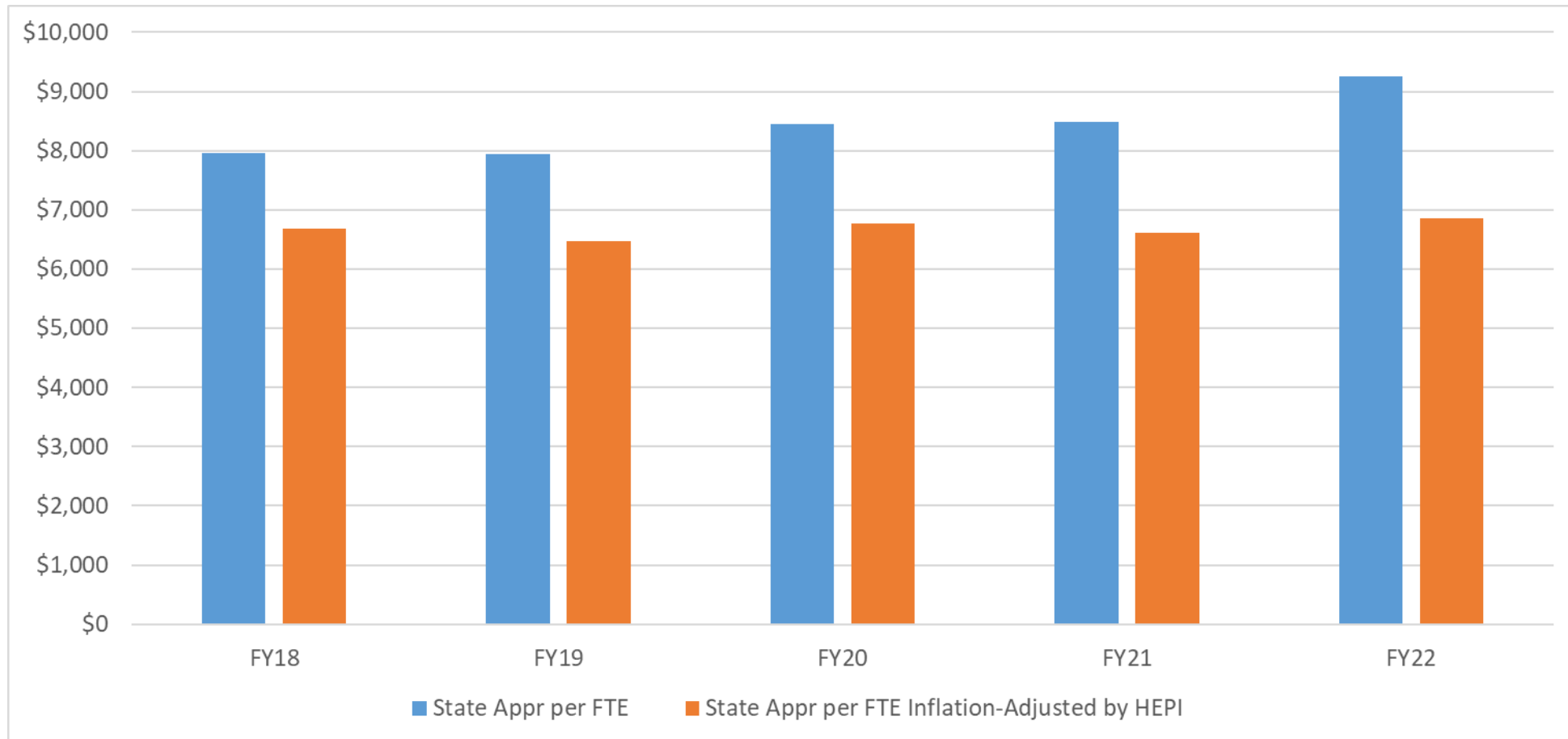
State support for UMass has not kept pace with inflation.



Does not include state supported fringe.

State Appropriation per Total Student FTE

State support per student FTE has not kept pace with inflation (FY10 high of \$10,021 to FY22 of \$9,251) even without adjusting for inflation.

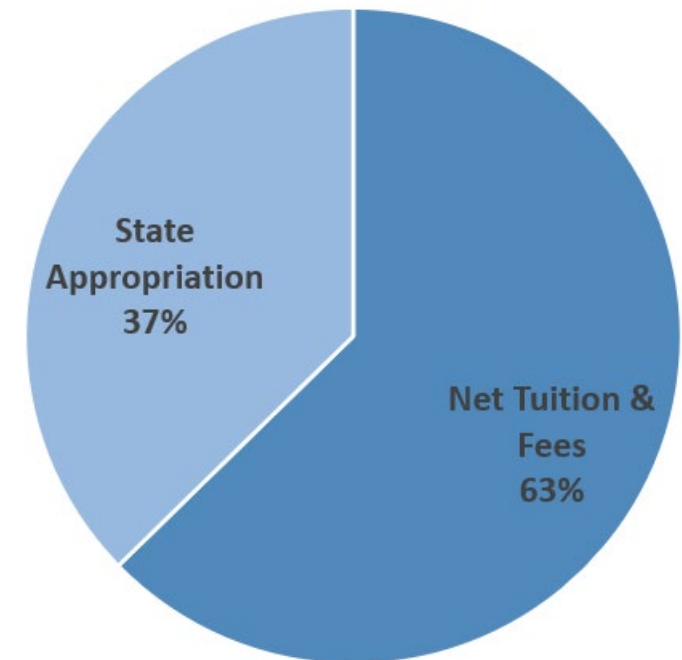


State Revenue vs. Net Tuition & Fee Revenue

- Revenue that supports student education is generated by students and the State
- Students pay the majority share at 63%; 37% funded by State

(\$ in Thousands)

Revenues	Actual				
	FY2018	FY2019	FY2020	FY2021	FY2022
Net Tuition & Fees	874,826	894,904	917,297	930,614	1,007,124
<i>% of Total</i>	63.0%	63.3%	62.2%	62.4%	62.7%
State Appropriation*	513,545	519,167	558,045	560,455	599,354
<i>% of Total</i>	37.0%	36.7%	37.8%	37.6%	37.3%
Total	1,388,371	1,414,071	1,475,342	1,491,069	1,606,478



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

Expenses



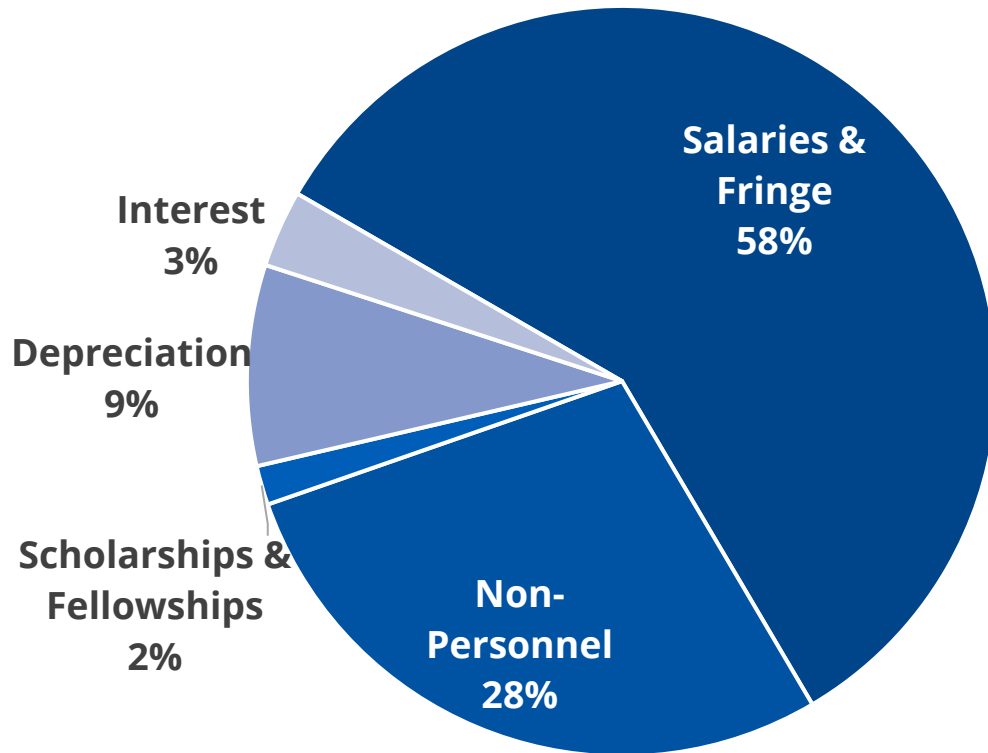
Assumptions

Expense Assumptions	FY24-28
Salaries & Fringe	
Fringe Rate	~2.3% annually
Collective Bargaining	2.5% annually
Depreciation	UMBA Schedule
Interest	UMBA Schedule + borrowing for approved capital plan

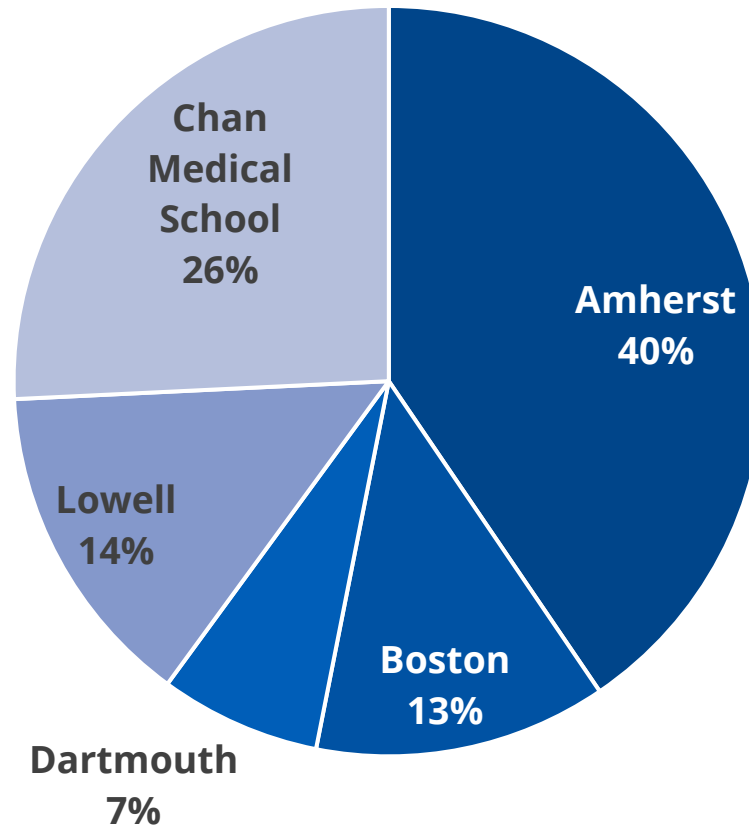
- **Starting Point:**
 - Utilize FY23 budget as starting point; adjustments made based on Q1 projection
 - Excludes UMass Global
- **Assumptions:**
 - Provided by UMPO for key drivers
 - Campus specific strategic plans drive underlying assumptions
 - Continued impact of current inflation environment to be further reviewed during the FY24 budget process
- **Operating margin:** Achieve 2% by FY25

University Expenses: by Category & Campus

FY23 Expense Categories = \$3.8 billion



FY23 Campus Expenses



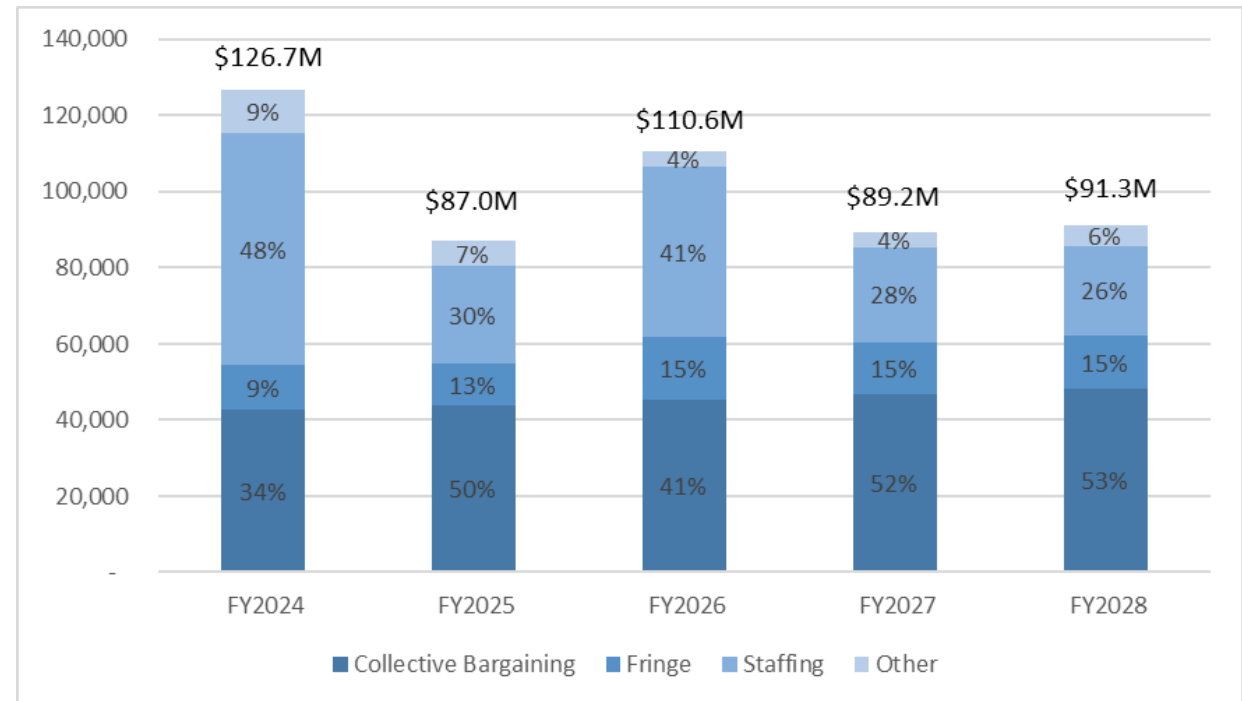
Note: excludes UMass Global

Salaries & Fringe

- **Key Takeaways:** 60% of growth driven by collective bargaining and fringe with remainder driven by staffing increases
- **Collective Bargaining:** 2.5% annual increases; total annual cost of a 2.5% increase is \$39M of which state reimburses 46%
- **Fringe Benefits Rate:** on average 44% applied to salaries; rate grows annually by historical average of 2.3%
- **Workforce:** staffing grows on average 1.3% over the forecast period

<u>FY23 Budget</u>	<u>Avg % Expense</u>	<u>AAGR</u>
Total: \$2.2B	FY24-28: 59	FY24-28: 4.4
Salaries 1.8B; Fringe 0.4B	FY21-23: 58	FY21-23: 1.8
% of Exp: 58	FY18-20: 59	FY18-20: 4.3

Growth in Salaries & Fringe Expense:



Collective Bargaining

- Upcoming contract period FY24-FY26; assumed 2.5% increases over the forecast (no state parameters released to date)
- 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 ~46% of total costs

(\$ in Millions)

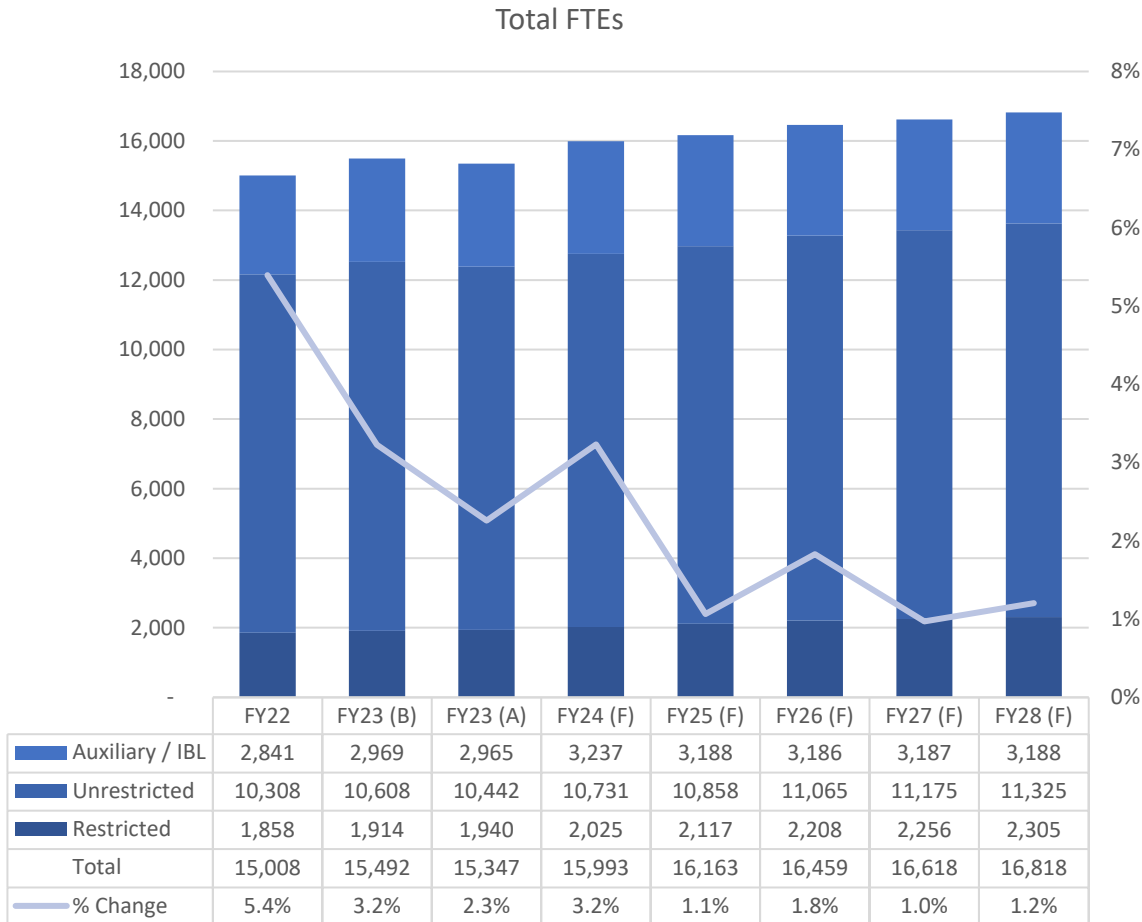
Total Cost (Estimate)	FY24 (2.5%)	FY25 (2.5%)	FY26 (2.5%)	FY27 (2.5%)	FY28 (2.5%)	Total
Base increase	39.4	39.4	39.4	39.4	39.4	196.8
Base increase		38.1	38.1	38.1	38.1	152.5
Base increase			39.2	39.2	39.2	117.6
Base increase				40.2	40.2	80.3
Base increase					41.7	41.7
Total	39.4	77.5	116.7	156.8	198.5	588.9

State Funding (Estimate)						
Base increase	17.7	17.7	17.7	17.7	17.7	88.4
Base increase		18.1	18.1	18.1	18.1	72.4
Base increase			18.5	18.5	18.5	55.6
Base increase				19.0	19.0	37.9
Base increase					19.4	19.4
Total	17.7	35.8	54.3	73.3	92.7	273.8
<i>% of Total Cost</i>	<i>45%</i>	<i>46%</i>	<i>47%</i>	<i>47%</i>	<i>47%</i>	<i>46%</i>

Net University Cost	21.7	41.7	62.3	83.5	105.8	315.1
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Staffing

Faculty & staff grows on average 1.7% over the forecast period.



Unrestricted: faculty & staff that support general university operations

Auxiliary / Independent Business Lines: housing & dining along with Mass Biologics & Commonwealth Medicine

Restricted: faculty & staff funded by grant & endowed funds

FTEs:	10,608
% of Total FTEs:	68%
Faculty % / Staff %:	37% / 63%
Forecast AAGR:	1.3%

FTEs:	2,969
% of Total FTEs:	19%
Faculty % / Staff %:	0% / 100%
Forecast AAGR:	1.5%

FTEs:	1,914
% of Total FTEs:	12%
Faculty % / Staff %:	17% / 83%
Forecast AAGR:	3.8%

Other Expense Categories

- Non-Personnel:** utilities, supplies, contracted services, travel and other business-related expenses
- Depreciation:** depreciation of plant, property, and equipment, depletion, and amortization of assets acquired by capital lease
- Interest:** related to debt issued through the UMass Building Authority and other sources

<u>FY23 Budget</u>	<u>Avg % Expense</u>	<u>AAGR</u>
Total: \$1.1B	FY24-28: 28	FY24-28: 4.0
% of Exp: 28	FY21-23: 27	FY21-23: 3.1
	FY18-20: 30	FY18-20: -0.6

<u>FY23 Budget</u>	<u>Avg % Expense</u>	<u>AAGR</u>
Total: \$328M	FY24-28: 8	FY24-28: 2.4
% of Exp: 9	FY21-23: 9	FY21-23: 4.4
	FY18-20: 8	FY18-20: 5.0

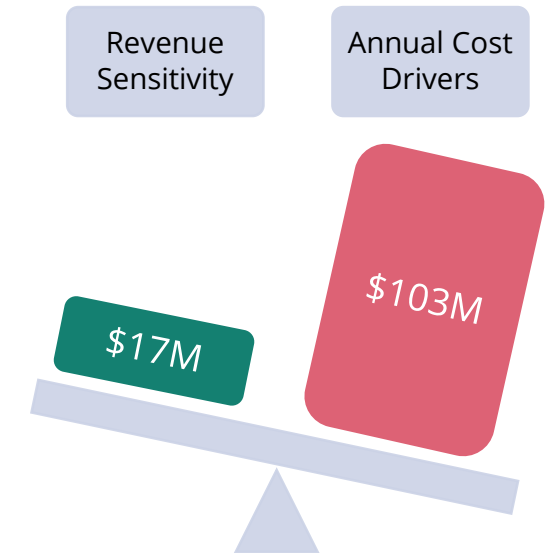
<u>FY23 Budget</u>	<u>Avg % Expense</u>	<u>AAGR</u>
Total: \$126M	FY24-28: 3	FY24-28: 0.3
% of Exp: 3	FY21-23: 3	FY21-23: 5.1
	FY18-20: 3	FY18-20: -0.2

Sensitivity Analysis: Impact of Key Revenue/Expense Drivers

- Revenue growth is limited and driven by enrollment, occupancy, tuition rates and state funds
- Overall expenses increase on average by 4.0% with the majority of increases related to fixed costs
- Modest revenue growth only covers a fraction of fixed cost increases

Revenue Sensitivity	University Total	% Revenue
Enrollment (+/-100 students)	4,428	0.1%
Occupancy (+/-100 students)	3,133	0.1%
Tuition (each 1%)	4,165	0.1%
State (each 1%)	5,712	0.1%

Annual Cost Drivers	University Total	% Expenses
Collective Bargaining (2.5%)	39,400	1.0%
Fringe (2% growth)	11,571	0.3%
Non-Personnel (4.1% growth)	43,364	1.1%
Depreciation & Interest	8,902	0.2%



Forecast Borrowing Plan

\$ in thousands

Campus	Planned Issuance FY24 - FY28
UMA	310,000
UMB*	-
UMD	-
UML	72,000
UMCMS	-
Total	382,000

- Capital Plan approved in September 2021
- Typically issue debt every 2 years; timing and structure developed by UMBA in consultation with the President's Office and the campuses
- Borrowing needed to fully implement capital plan is expected in FY24, FY26, and FY28
- UMBA uses Commercial Paper (CP) to support project spending in advance of debt issuance

*Forecast borrowing contingent upon outcome of
Dorchester Bay City transaction

University: Revenue & Expenses

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY24-28	
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Avg. Annual
Gross Tuition & Fees	1,186,773	1,223,734	1,260,327	1,275,742	1,268,347	1,306,872	1,331,922	1,376,891	1,430,727	1,485,097	1,523,282	1,565,233	13.7%	3.7%
Tuition Discounts	(311,947)	(328,830)	(343,030)	(345,128)	(364,746)	(372,754)	(379,317)	(391,224)	(407,281)	(421,441)	(429,539)	(439,984)	12.5%	3.4%
Discount Rate	26.3%	26.9%	27.2%	27.1%	28.8%	28.5%	28.5%	28.4%	28.5%	28.4%	28.2%	28.1%	-1.1%	-0.3%
Net Tuition & Fees	874,826	894,904	917,297	930,614	903,601	934,119	952,605	985,667	1,023,446	1,063,656	1,093,743	1,125,249	14.2%	3.8%
Grants	560,990	593,086	581,372	667,148	716,333	687,541	714,435	784,996	842,874	902,426	943,138	985,475	25.5%	7.5%
Sales & Service, Educational	30,591	34,985	31,248	30,253	40,906	37,094	40,901	42,392	43,654	44,972	46,350	47,794	12.7%	5.3%
Auxiliary Enterprises	416,733	441,795	378,314	163,811	432,970	465,347	474,315	487,829	500,597	514,129	529,300	545,354	11.8%	3.2%
Other Operating	311,119	222,074	238,188	199,854	267,881	224,835	254,243	247,028	253,295	255,273	257,117	258,336	4.6%	2.9%
State Appropriations	751,894	780,222	810,518	845,482	880,002	986,826	1,018,814	1,002,995	1,034,430	1,076,764	1,120,392	1,166,064	16.3%	3.4%
Other NonOperating	197,142	231,504	222,129	288,591	311,393	211,409	222,343	229,579	240,300	245,252	253,205	260,957	13.7%	4.3%
Independent Business	274,555	266,509	280,620	311,262	251,782	289,220	288,067	299,164	294,007	300,298	307,838	315,533	5.5%	1.8%
Total Revenues	3,417,850	3,465,079	3,459,686	3,437,015	3,804,868	3,836,389	3,965,724	4,079,650	4,232,605	4,402,769	4,551,082	4,704,762	15.3%	4.2%
% Growth	1.8%	1.4%	-0.2%	-0.7%	10.7%	0.8%	4.2%	6.3%	3.7%	4.0%	3.4%	3.4%		
Expenses													Cumulative	Avg. Annual
Salaries & Fringe	1,901,896	1,970,869	2,012,669	2,008,909	2,119,274	2,208,061	2,274,277	2,360,318	2,447,326	2,557,965	2,647,185	2,738,532	16.0%	4.4%
Non-Personnel	1,007,943	943,685	949,638	897,115	1,030,011	1,067,663	1,068,790	1,112,027	1,145,665	1,188,417	1,240,045	1,300,794	17.0%	4.0%
Scholarships & Fellowships	50,402	49,507	65,464	80,024	118,302	64,129	61,566	62,162	64,976	67,423	69,253	70,425	13.3%	1.9%
Depreciation	261,417	276,638	288,667	300,201	323,702	328,366	328,182	343,293	360,479	367,510	371,829	369,968	7.8%	2.4%
Interest	115,851	116,217	109,186	105,468	114,541	125,947	126,339	119,922	127,190	130,613	129,357	127,259	6.1%	0.3%
Total Expenses	3,336,260	3,356,916	3,424,616	3,391,718	3,705,830	3,794,166	3,859,154	3,997,722	4,145,636	4,311,929	4,457,669	4,606,978	15.2%	4.0%
% Growth	3.1%	0.6%	2.0%	-1.0%	9.3%	2.4%	4.1%	5.4%	3.7%	4.0%	3.4%	3.3%		
UMass OM Calc Revenues	3,416,188	3,449,697	3,462,090	3,459,992	3,852,950	3,824,341	3,965,724	4,077,501	4,230,680	4,400,945	4,549,242	4,702,882		
Total Expenses	3,336,260	3,356,916	3,424,616	3,391,716	3,705,830	3,795,798	3,859,154	3,997,722	4,145,636	4,311,929	4,457,669	4,606,978		
Surplus / (Deficit)	79,928	92,781	37,474	68,276	147,120	28,543	106,570	79,779	85,044	89,016	91,573	95,904		
UMass OM Calc	2.3%	2.7%	1.1%	2.0%	3.8%	0.7%	2.7%	2.0%	2.0%	2.0%	2.0%	2.0%		

Note: excludes UMass Global

Non-Instructional Administrative Costs

Non-Instructional Administrative Costs Defined



INSTITUTIONAL SUPPORT

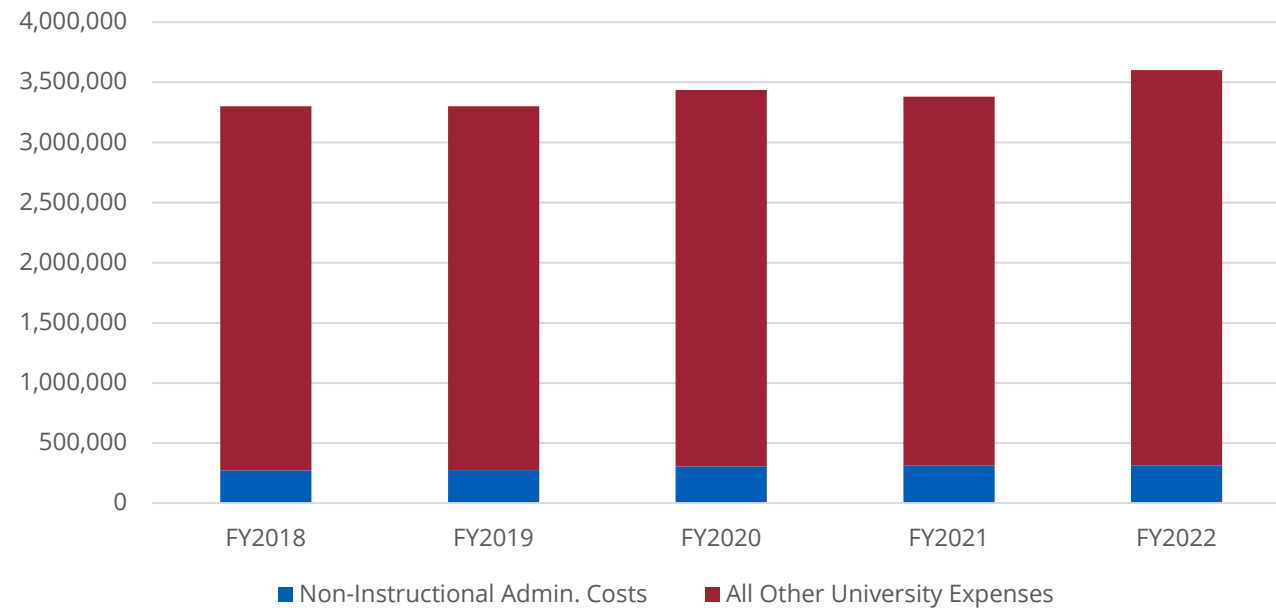
Supporting the day-to-day operations of the institution, including general administration, management and long-range planning, legal and fiscal operations, space management, human resources, logistics, and public relations (in the form of communications and marketing to support enrollment growth).

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

Non-Instructional Administrative Costs: 2018-2022

Non-instructional administrative costs are 8.8% of overall university expenses in FY2022.

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

Dollars in thousands	FY2018	FY2019	FY2020	FY2021	FY2022
Non-Instructional Admin. Costs	271,535	274,326	303,100	311,629	315,810
Percent of Total Costs	8.2%	8.3%	8.8%	9.2%	8.8%

SOURCE: UMass audited financial statements

Salaries & Fringe



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 FY22 rate (39.43%) has increased by 36% since FY2011.
- The entire state appropriation (\$599M) 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, \$599 million, is used to fund payroll which only covers 35% of the University's total payroll costs (41% when you factor fringe).

(\$ in Thousands)

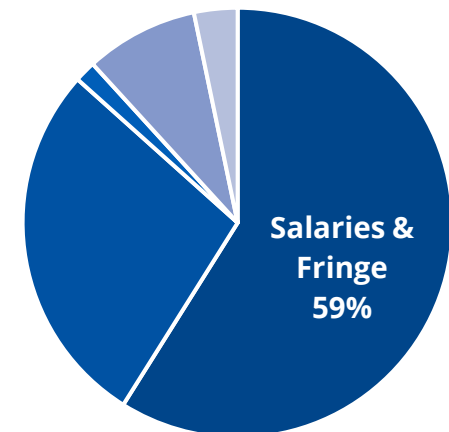
Actual

	FY2018	FY2019	FY2020	FY2021	FY2022
Salaries	1,543,796	1,587,269	1,712,549	1,643,982	1,698,111
Fringe	358,100	383,600	383,538	364,927	379,103

Total University Payroll - FY22

<i>(\$ in Thousands)</i>	Total	University	State
Union Payroll	1,016,881	417,527	599,354
Non Union Payroll	681,229	681,229	
Fringe	379,103	117,345	261,758
Total	2,077,214	1,216,102	861,112
<i>% of Total</i>		59%	41%

Total University Expenses
(\$3.9 billion at FY23 Q1 Proj.)

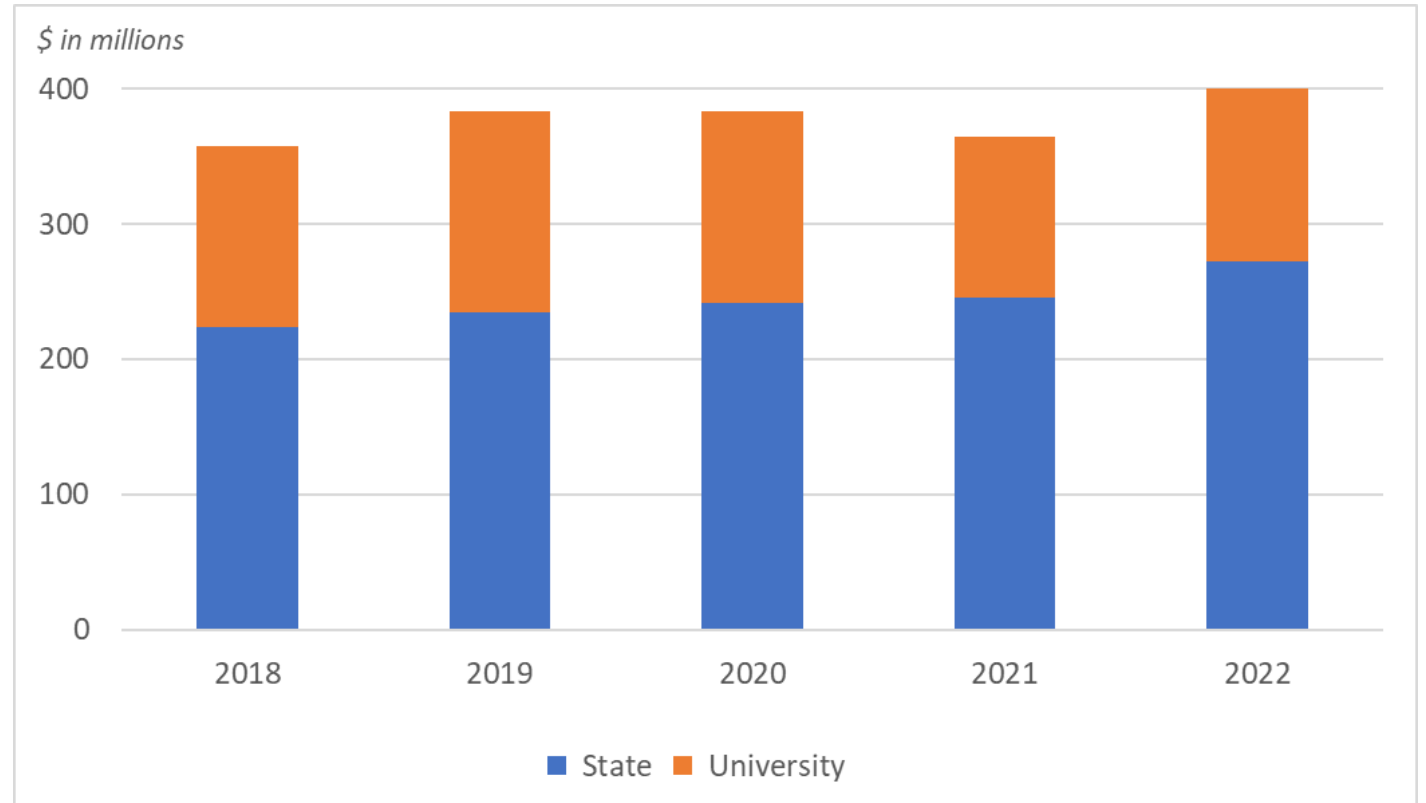


Fringe Benefits by Fiscal Year

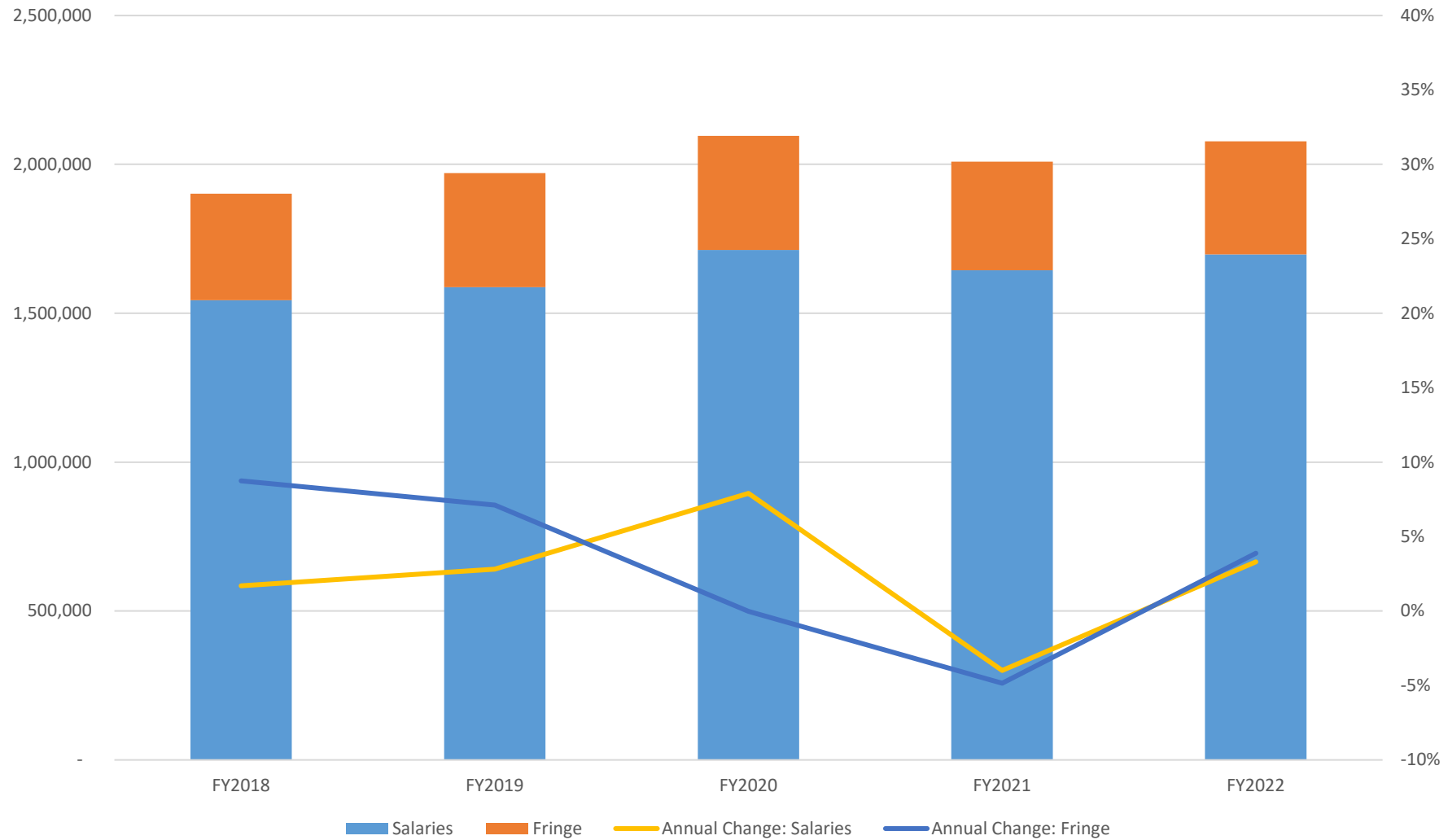
Fringe costs have increased 20% since 2018

Share of UMass Fringe Benefits

<i>\$ in millions</i>	2018	2019	2020	2021	2022
State	224.0	234.5	241.4	245.6	272.9
University	134.1	149.1	142.1	119.3	158.0
Total	358.1	383.6	383.5	364.9	430.9



Salaries & Fringe by Fiscal Year



Fiscal Year 2022 vs. Calendar Year 2022

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

Fiscal Year 2022 Salaries:

\$1.7 billion

Calendar Year 2022 Salaries:

\$1.6 billion

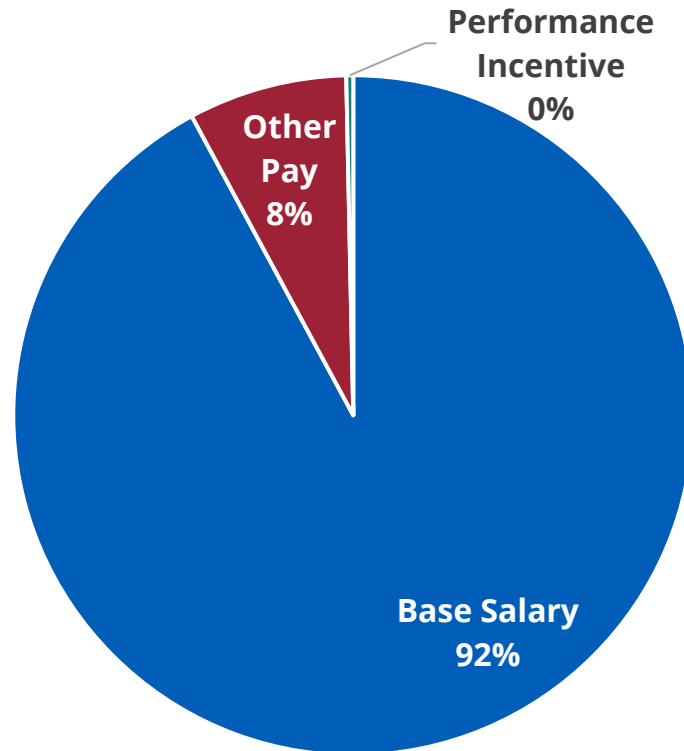
Why the difference?

- 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 2022 Payroll by Type of Pay

Annually, only three tenths of one percent of total compensation (\$1.6 billion) goes to performance incentive pay.

CY2022 Payroll by Type of Pay



- Base pay accounts for 92% 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 (47%); COVID adjustment (18%); overtime (14%); and payments made at separation (8%).

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 2022, 75% 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 92% of UMass payroll. Payroll by type of pay has remained consistent over time.

Total University Payroll

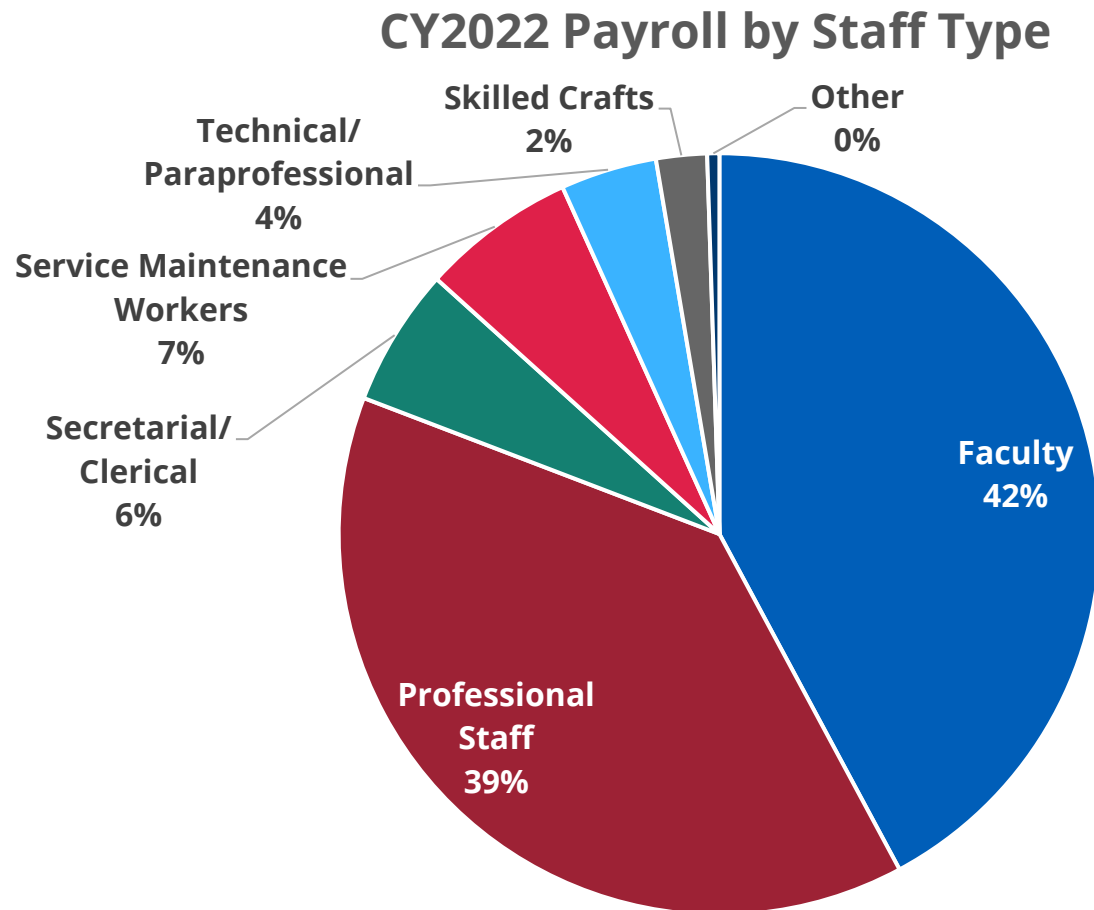
<i>\$ in Thousands</i>	2018	2019	2020	2021	2022
Base Pay	1,329,888	1,380,743	1,343,982	1,362,979	1,502,671
	94.2%	94.3%	93.6%	93.2%	92.1%
Other Pay	78,099	80,502	87,783	94,474	123,165
	5.5%	5.5%	6.1%	6.5%	7.6%
Performance Incentive	3,091	3,679	3,668	4,449	5,390
	0.2%	0.3%	0.3%	0.3%	0.3%
Total	1,411,078	1,464,924	1,435,434	1,461,902	1,631,226
	100.0%	100.0%	100.0%	100.0%	100.0%

Data based on calendar year.

Note: increase in "other pay" in 2022 is largely related to COVID adjustment and increased overtime due to challenging hiring environment.

Calendar Year 2022 Payroll by Staff Type

In 2022, 42% of salaries went to faculty and 39% went to professional staff.



Excludes Medical School

- \$473 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

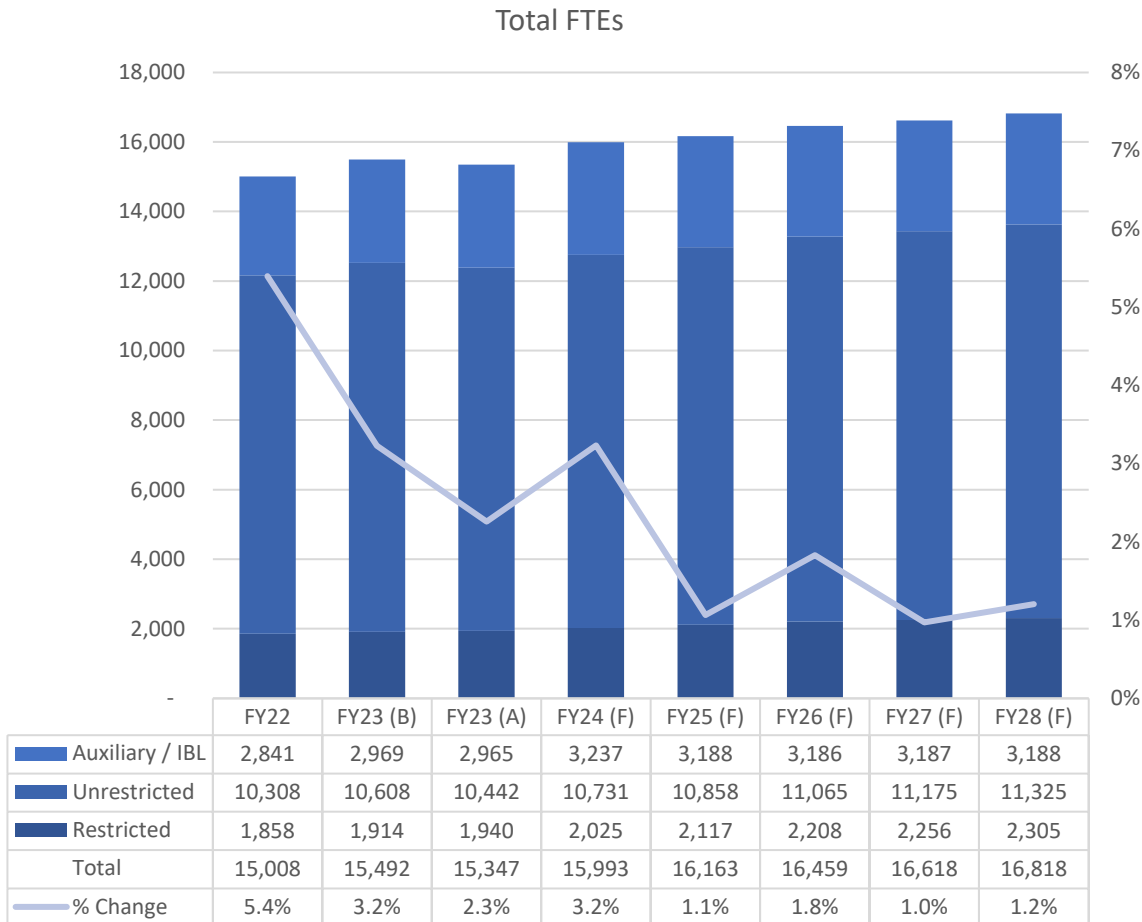
Faculty salaries were 42.2% of payroll in 2022 – an increase from 41.6% in 2018. Professional staff salaries were 38.7% of payroll in 2020 – nearly level with 2018.

Undergraduate Campuses & President's Office					
<i>in Thousands</i>	2018	2019	2020	2021	2022
Faculty	426,773	440,297	444,992	444,397	487,928
<i>% of Total</i>	41.6%	41.3%	43.3%	43.2%	42.2%
Professional Staff	390,596	409,016	395,553	403,183	447,426
<i>% of Total</i>	38.1%	38.4%	38.5%	39.2%	38.7%
Service Maintenance Workers	68,353	72,477	55,189	56,197	75,903
<i>% of Total</i>	6.7%	6.8%	5.4%	5.5%	6.6%
Secretarial/Clerical	67,377	68,711	63,769	58,778	67,905
<i>% of Total</i>	6.6%	6.5%	6.2%	5.7%	5.9%
Technical/Paraprofessional	45,290	46,541	43,846	41,888	47,313
<i>% of Total</i>	4.4%	4.4%	4.3%	4.1%	4.1%
Skilled Crafts	23,896	25,021	21,191	20,528	24,986
<i>% of Total</i>	2.3%	2.3%	2.1%	2.0%	2.2%
Other	2,852	3,042	3,680	4,231	5,951
<i>% of Total</i>	0.3%	0.3%	0.4%	0.4%	0.5%
Total	1,025,136	1,065,107	1,028,220	1,029,201	1,157,412
<i>% of Total</i>	100.0%	100.0%	100.0%	100.0%	100.0%

Data based on calendar year.

Staffing by Type & Funding Source

Faculty & staff grows on average 1.7% over the forecast period.



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Forecast AAGR:	1.3%

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% of Total FTEs:	12%
Faculty % / Staff %:	17% / 83%
Forecast AAGR:	3.8%

FY24 State Budget Request

FY24 State Budget Request

The University's request puts students first seeking funding to support critical needs.

<i>\$ in Thousands</i>	FY23	FY24
7100-0200	GAA	Request
Base:	663,366	663,366
Students First:		
<i>Expand Mental Health Services</i>		4,000
<i>Student Care & Emergency Relief Fund</i>		10,000
<i>Student Retention (Including Mentoring, Internship & Jobs)</i>		10,000
Fixed Cost Increase:		
<i>Inflation</i>		9,000
<i>Collective Bargaining*</i>		TBD
Total FY24 Request:	663,366	696,366
	<i>\$ Change</i>	33,000
	<i>% Change</i>	5.0%

**New contract period begins FY24; parameters not yet provided. Once parameters are known, will calculate using existing methodology and request funds as part of supplemental appropriation*

Students First

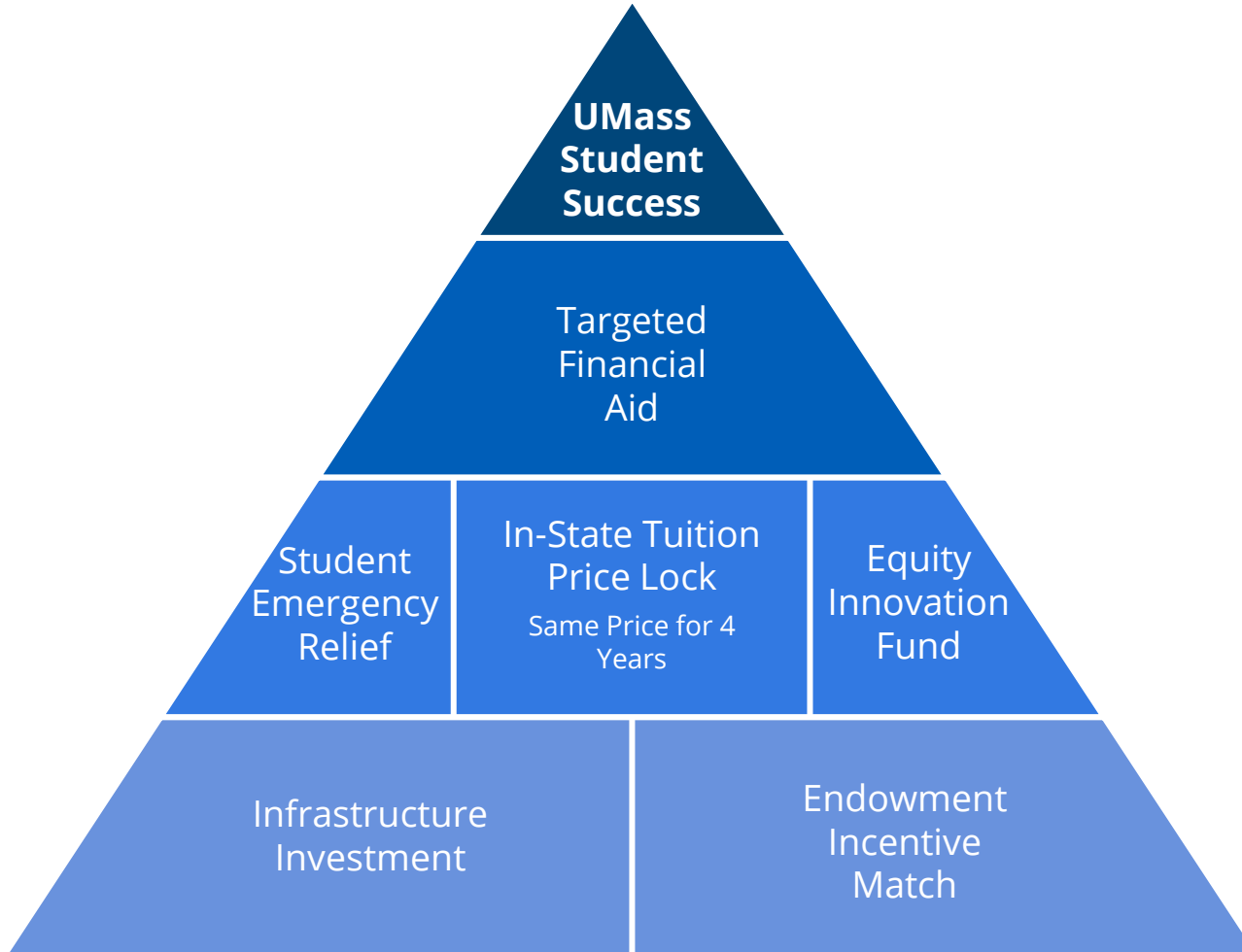
- Mental Health Services (\$4 million): to support the need for robust student mental health services and resources across all campuses
- UMass Student Care & Emergency Relief Fund (\$10 million): to support financial aid that removes barriers to students to start or continue their education and address the challenges students are routinely confronted with include food & housing insecurity, parent's loss of income, childcare costs, etc.
- Student Retention (Including Mentoring, Internship & Jobs) (\$10 million): to support student retention efforts including mentorship, tutoring, advising, internship, and job opportunities across industry and on-campus.

Fixed Costs

- Inflation (\$9 million): to support the current high inflation environment, this amount supports a 1% growth in non-personnel related costs to mitigate increases in a wide swath of expense categories, most notably in utilities.
- Collective Bargaining Update (via supplemental appropriation):
 - Collective bargaining negotiations for a new 3-year collective bargaining contract (FY24 - FY26) will begin once parameters are issued by the Administration.
 - FY24 request does not include any assumption for an incremental funding for collective bargaining since parameters are not known at this time.
 - Once parameters are available the State's share would be calculated and funding expected through supplemental appropriation.

UMass Fair Share Request – *Students First*

Comprehensive proposal focused on greater student success



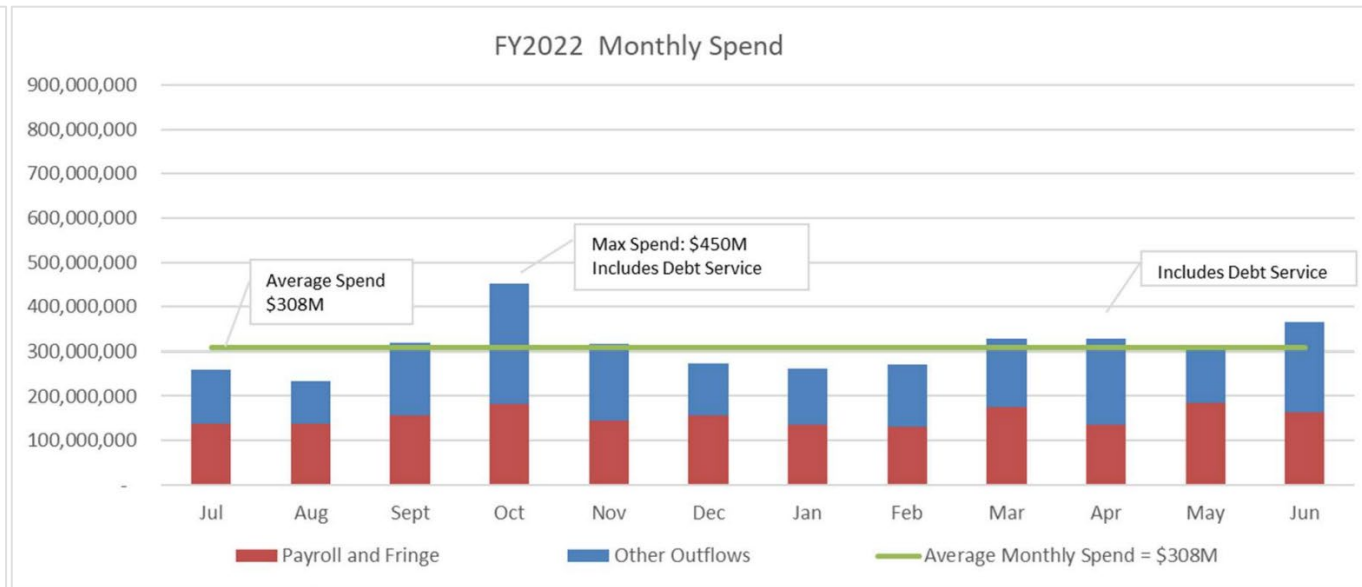
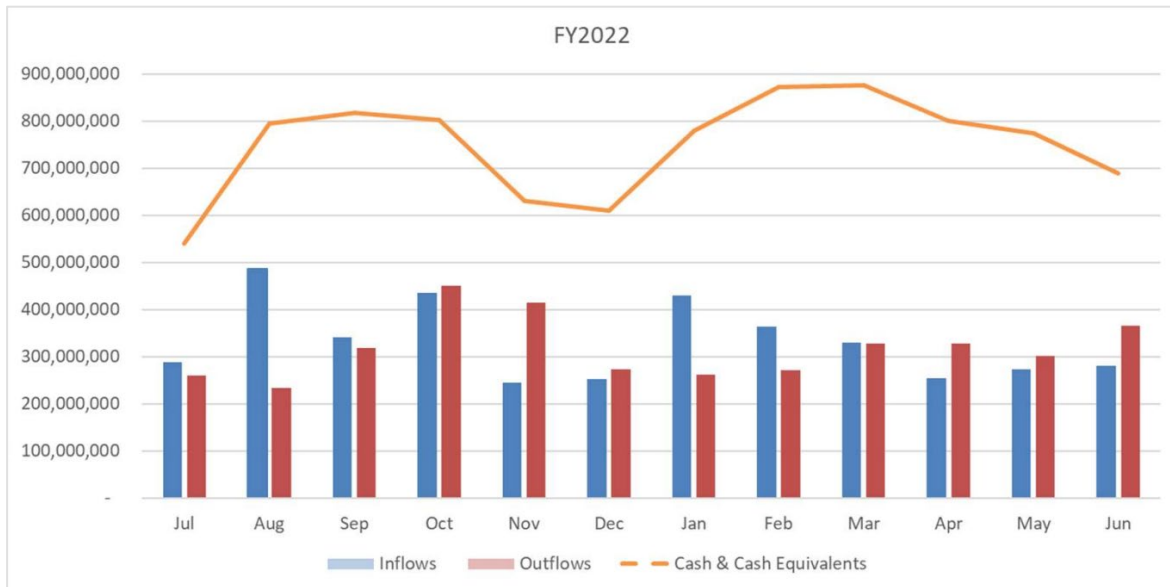
Leverage the Fair Share Amendment to make investments in student success - **\$200+ Million**

New resources targeted at affordability, retention, graduation rates, equity, student specific challenges, and higher education building infrastructure

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.

- \$308 million average monthly spend
- Debt service payments create significant outflows in October and April.

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 5/2/2022, the University renewed its \$150M revolving line of credit with Bank of America, which is now the sole lender
- There are currently no outstanding draws on the line of credit.
- 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

#7. Capital Plan



University of Massachusetts

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



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?

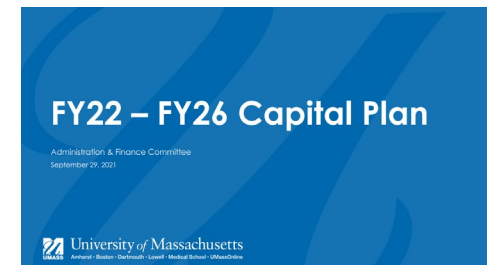
Developed every 2 years from June to August and presented to the Board of Trustees in September; at each board meeting an update is provided on project phases, funding, and spending among other dashboards

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

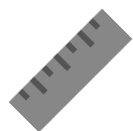
With 374 buildings and 26.0 million gross square feet of space, the University has a complex and extensive real estate profile that needs to be actively managed.



\$3.9 billion deferred maintenance backlog



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



26.0M total GSF across the university



~3,677 maintained acres



374 buildings across 5 campuses



~\$14.4 billion replacement value

Debt Facts

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

Total debt outstanding:
\$3.3 billion *as of 6/30/22*

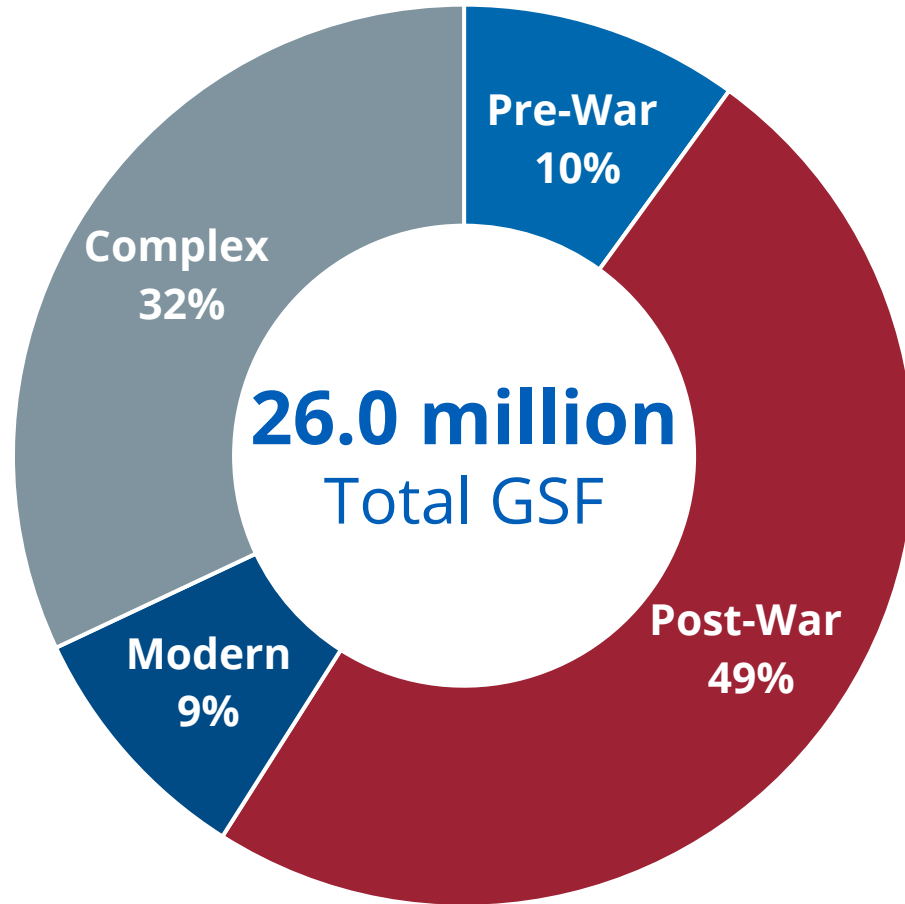
Annual debt service:
\$216 million *as of 6/30/22*

Debt service burden:
5.8% (peers are under 5%) *as of 6/30/22*

Financial leverage ratio:
0.57 (total cash/total adjusted debt) (below the peer median of 0.82, indicating the University has higher total debt in relation to peers) *as of 6/30/22*

UMass Building Age

59% of University built in eras requiring higher levels of care and maintenance today



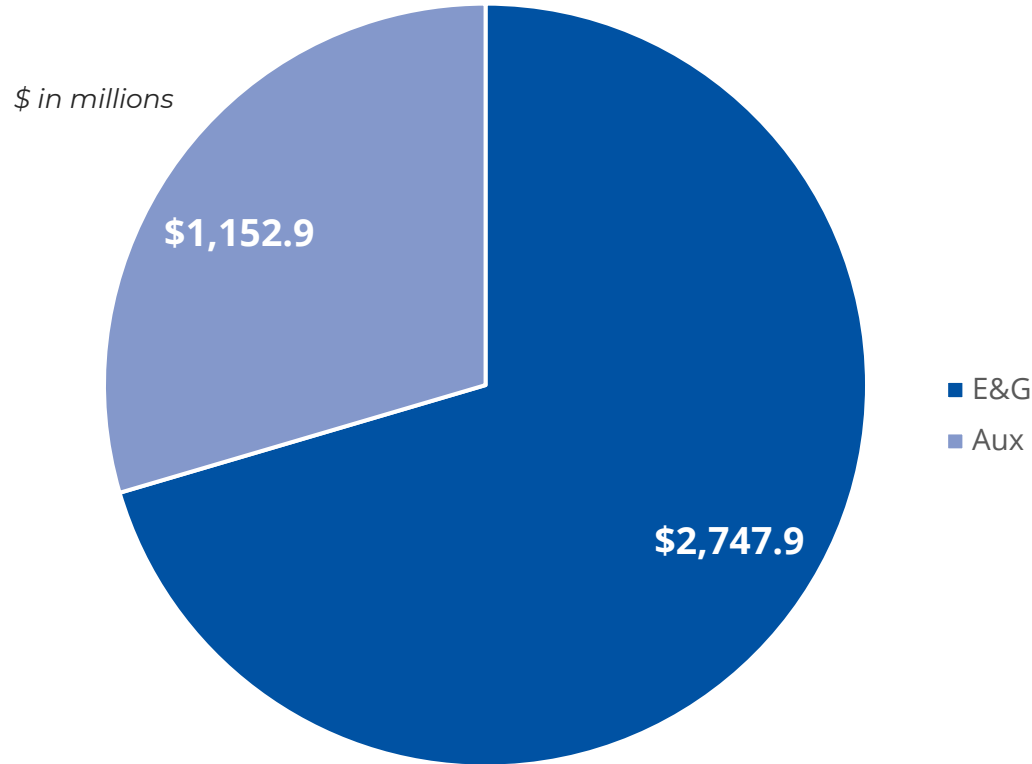
Construction Eras

- 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

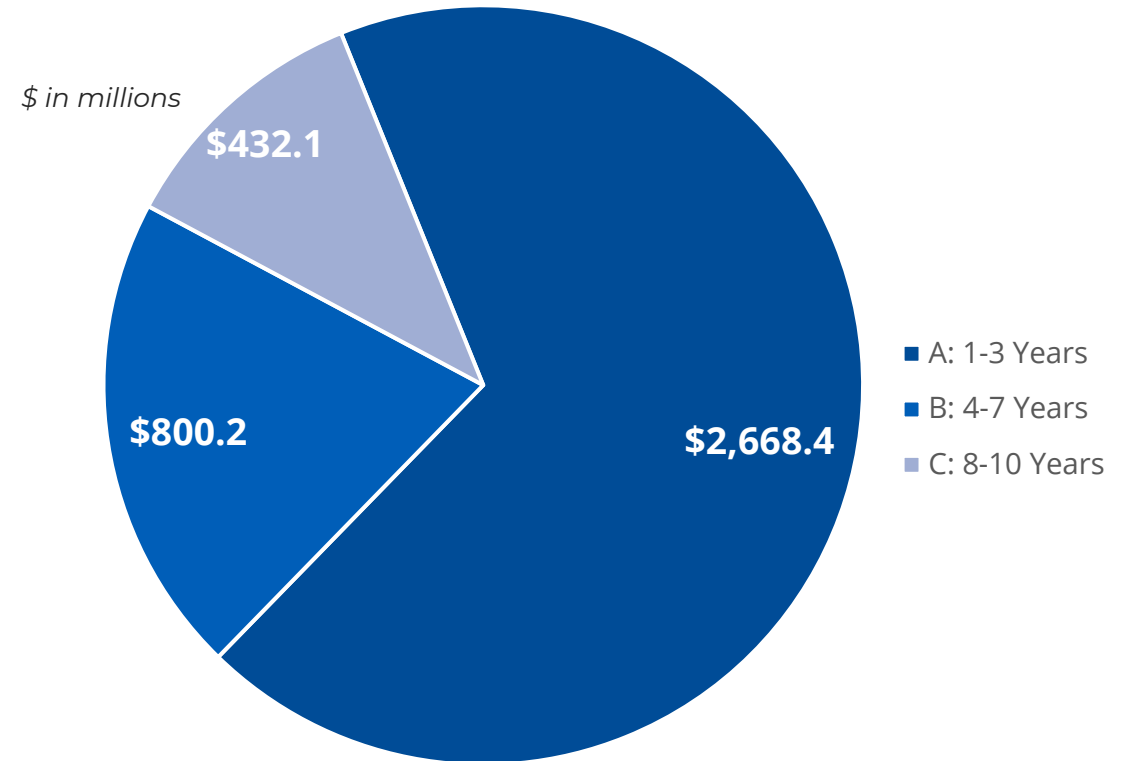
Deferred Maintenance

\$3.9 Billion Backlog Coming Due in the Next 10 Years

\$3.9B: E&G vs. AUX



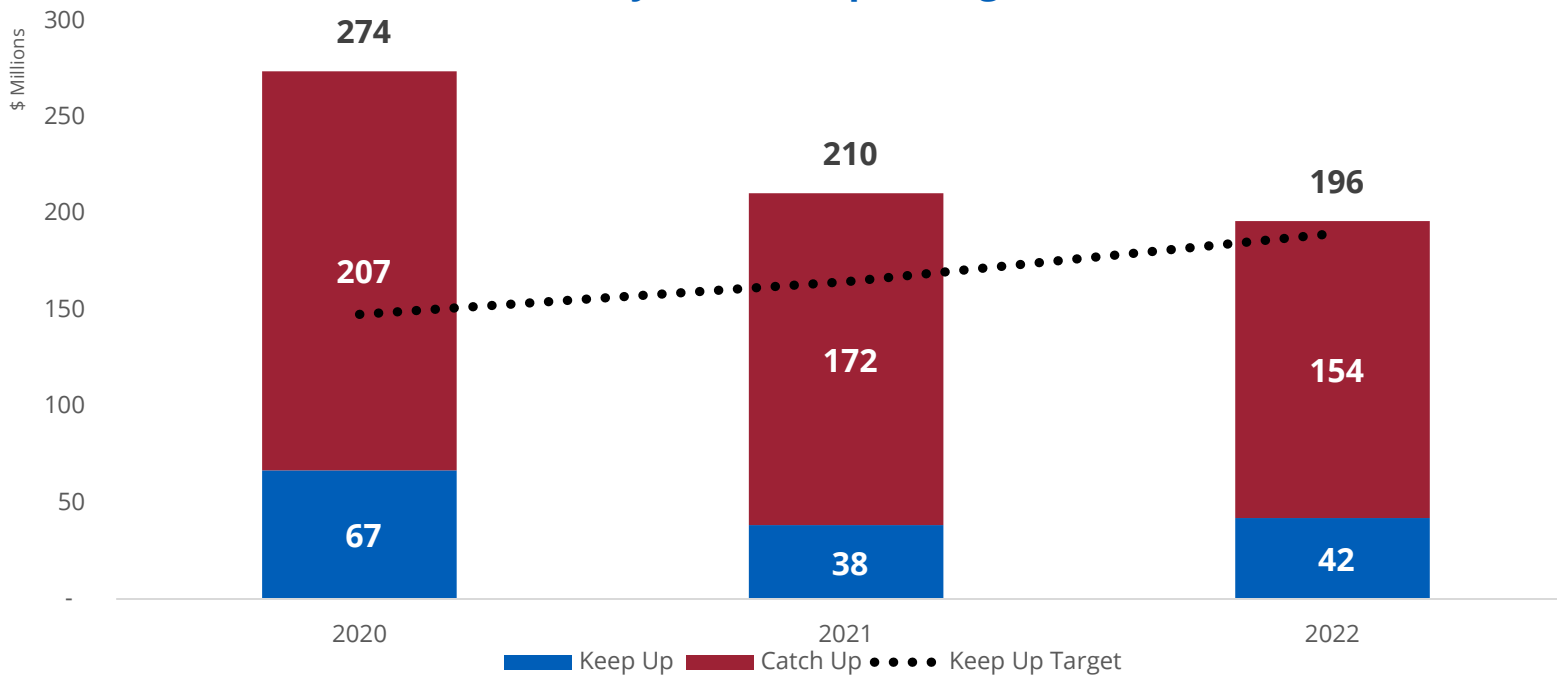
\$3.9B: By Timeframe



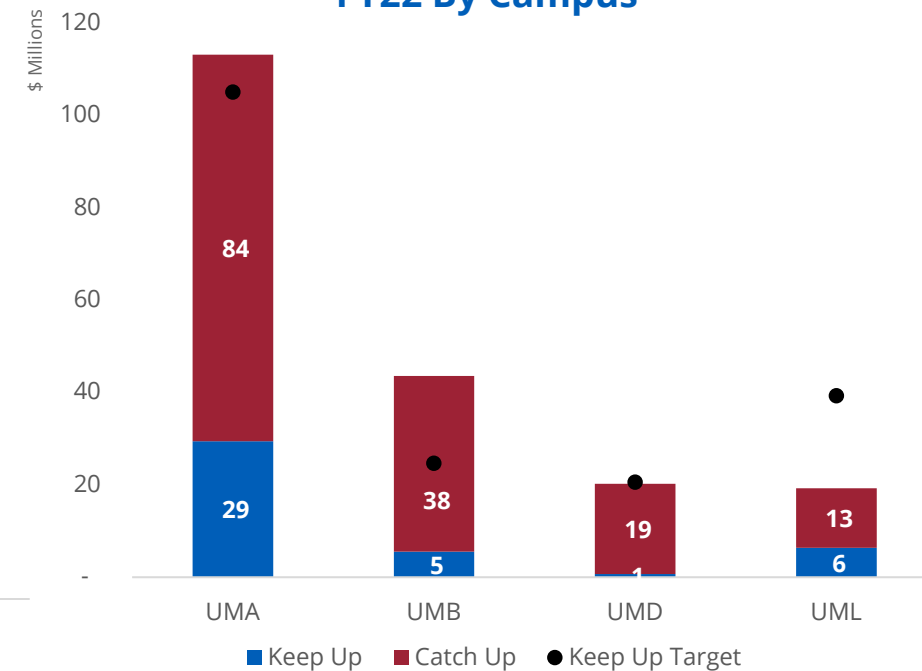
Deferred Maintenance - Annual Investment

<u>FY22 Keep Up</u> \$42 M	<u>FY22 Keep Up</u> \$189 M	<u>FY22 % Target</u> 22%
<u>FY22 Catch Up</u> \$154 M	<u>FY22 Catch Up</u> TBD	<u>FY22 % Target</u> N/A

System DM Spending



FY22 By Campus



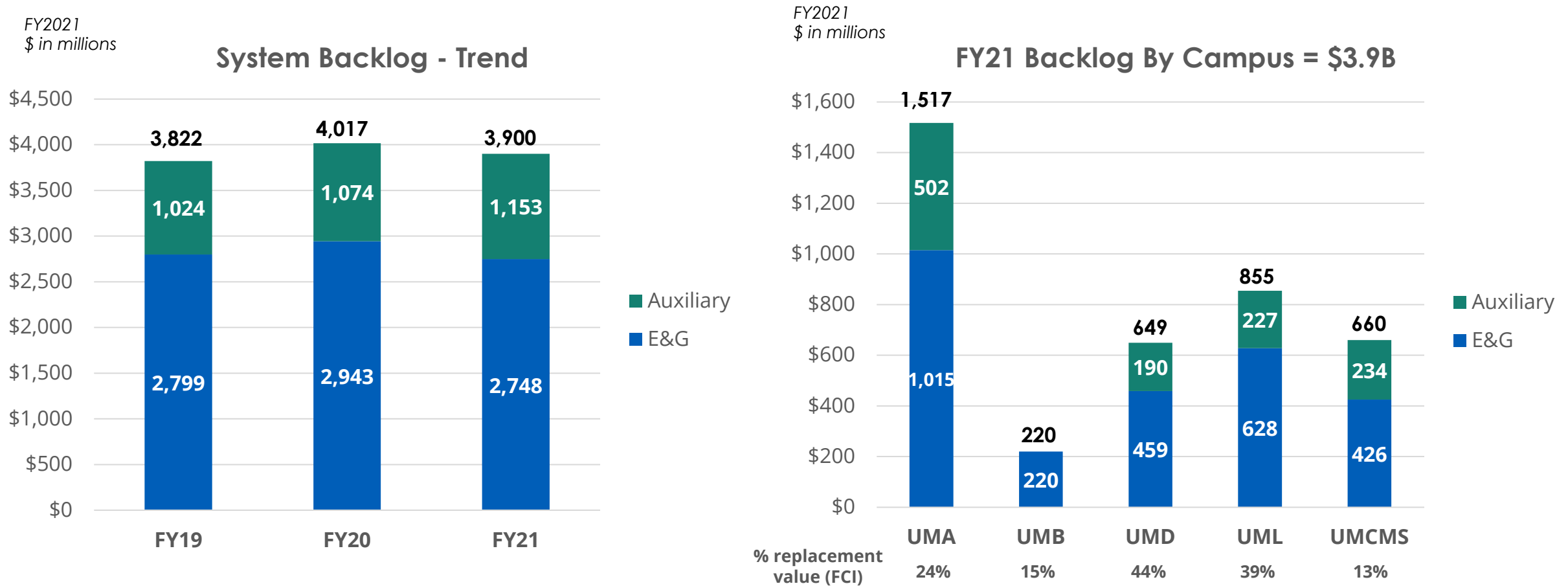
Deferred Maintenance – Annual Investment

<i>\$ in thousands</i>	FY24	FY25	FY26	FY27	FY28
Keep Up					
Target	273,000	280,000	287,500	294,500	301,000
Depreciation	343,293	360,479	367,510	371,829	369,968
- Principal Payment	125,578	122,944	119,074	122,151	126,923
= Available Keep Up	217,715	237,535	248,436	249,678	243,045
Forecast Spend	115,000	106,000	111,000	112,500	115,000
% of Target	42%	38%	39%	38%	38%
Catch Up					
Target (15 yrs)	260,000	260,000	260,000	260,000	260,000
Forecast Spend	181,000	196,500	232,000	167,000	140,500
% of Target	70%	75%	89%	64%	54%
Debt Service Burden	6.3%	6.1%	5.8%	5.6%	5.4%

- **Keep-Up:** targets established by Gordian meant to ensure investments sufficient to prevent backlog from growing
- **Depreciation:** (non-cash expenses) budgeted as a proxy to cover debt service; additional amount beyond debt payment available for keep up
- **Catch Up:** estimated 15 years to address backlog through major capital projects and one-time sources like State grants and borrowing

Deferred Maintenance Backlog

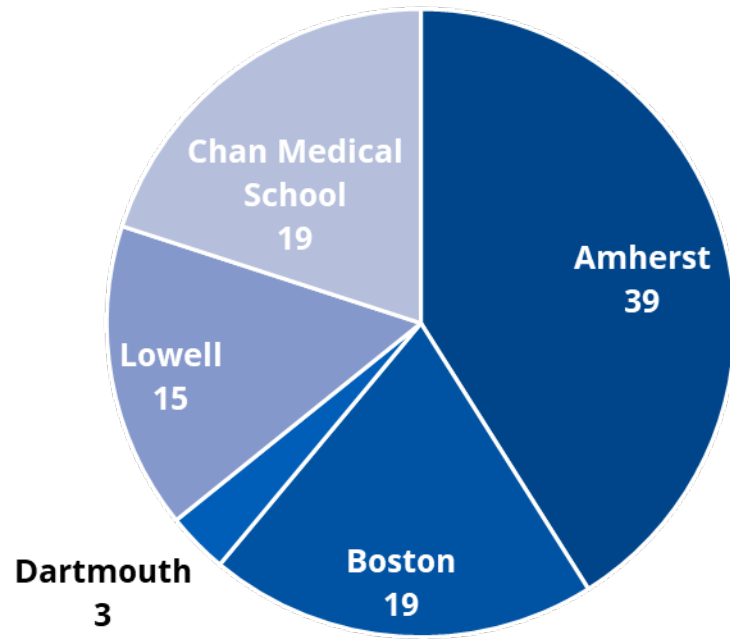
Total deferred maintenance is approximately \$3.9 billion, down from \$4.0 billion a year prior. Addressing the backlog over a 10-year period would require a \$390 million investment annually.



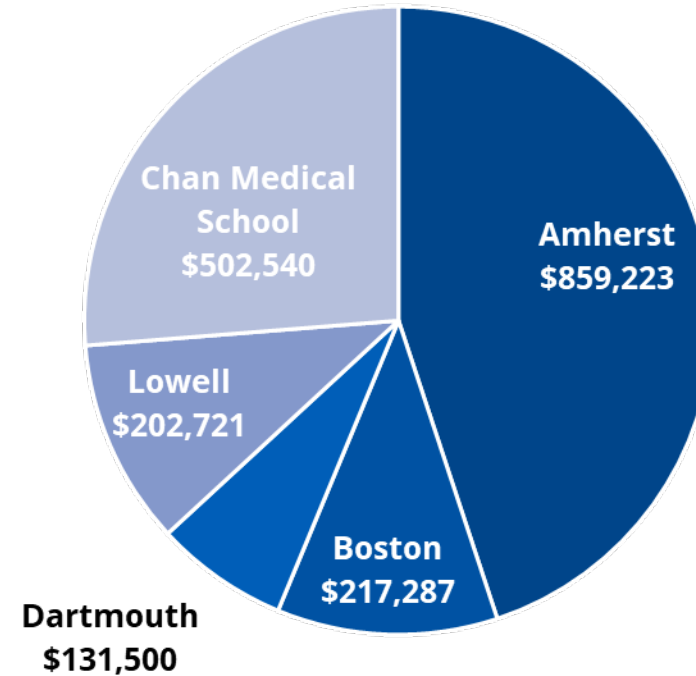
Capital Plan

Current capital plan includes 95 projects totaling \$1.9 billion.

Number of Projects
95



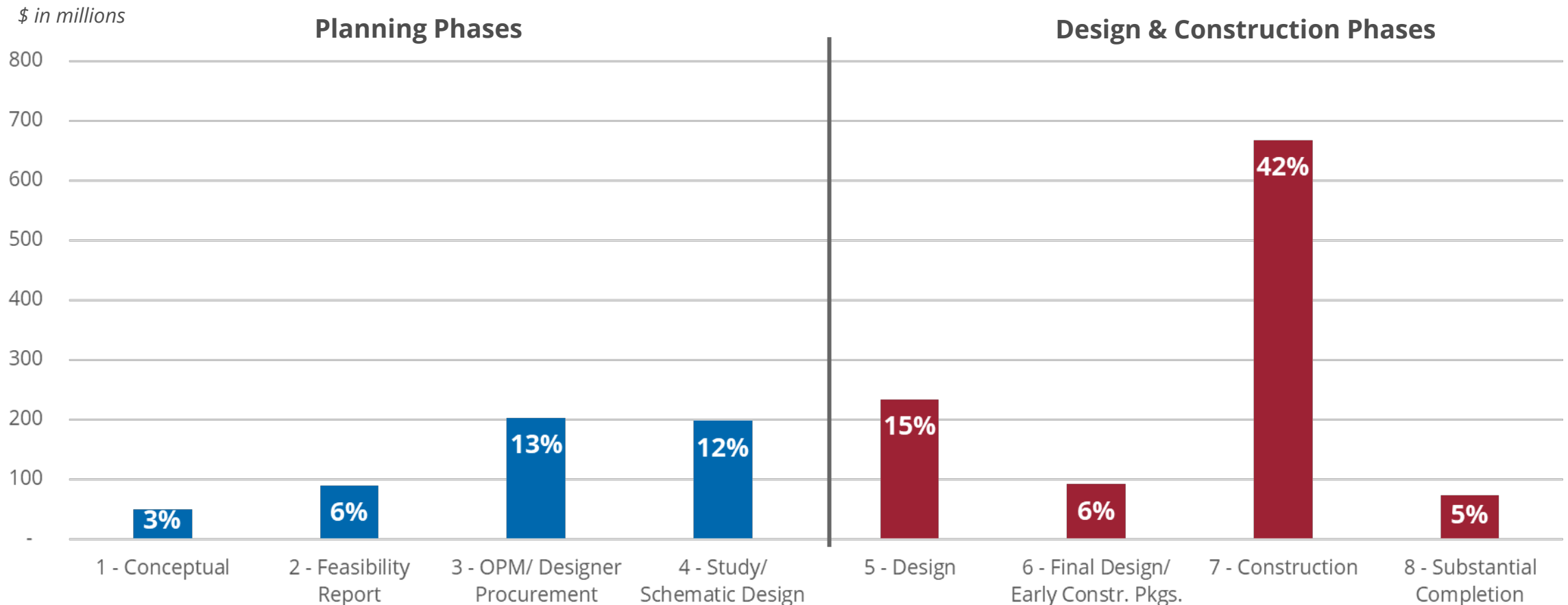
Estimated Cost of Projects
\$1.9B



\$ in thousands

Project Phases Dashboard

46% 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 Sept. 2022. Percentages based on project cost. Alternative financing & delivery projects excluded.

Alternative Finance & Delivery

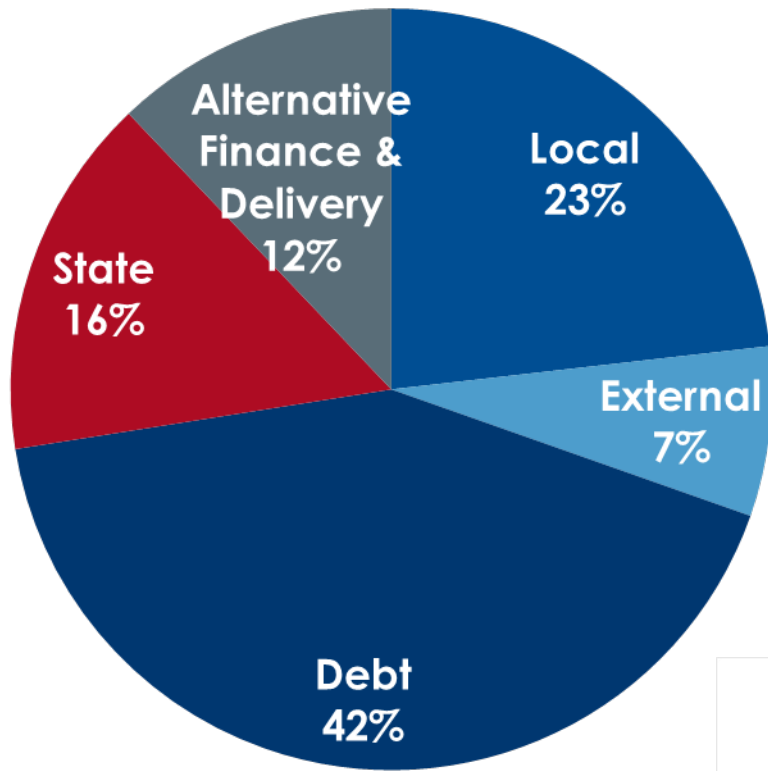
University continues to pursue public-private partnerships as innovative means of capital delivery.

\$ in thousands

Campus	Project	Cost (\$)	Vote Status
Amherst	Thermal Energy Storage Tank	9,750	Vote 1 (9/22/22)
Amherst	University Village Apartments	73,800	Vote 3 (12/13/21)
Amherst	Housing Expansion	210,000	Vote 3 (12/13/21)
Boston	Calf Pasture Pump House	TBD	Vote 1 (9/4/19)
Lowell	Tsongas Center Annex	12,000	Vote 2 (12/5/19)
Total:		\$305,550	

Funding Sources Dashboard

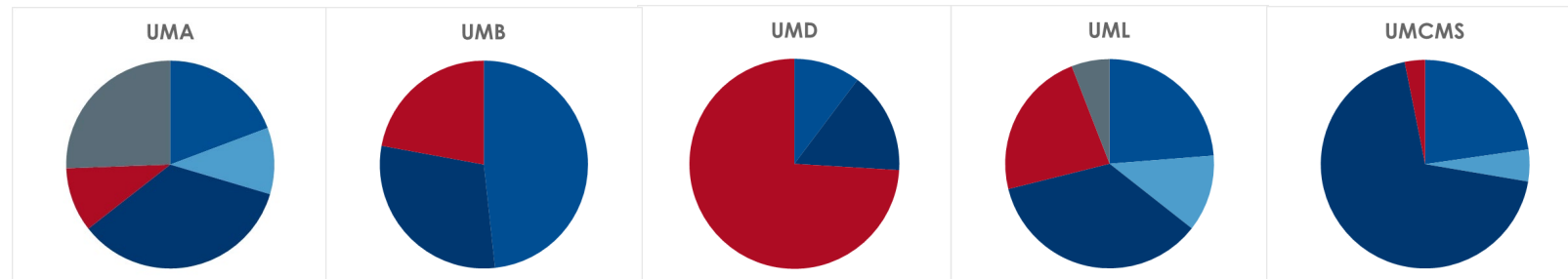
72% of Capital Plan funded by University resources.



\$ in thousands

FY2023 Q2

Funding Source	Total Capital Plan	% Total
Local	443,628	23%
External	137,880	7%
Debt	805,475	42%
<i>Subtotal University Funding</i>	<i>1,386,983</i>	<i>72%</i>
State	294,538	15%
Alternative Finance & Deliver	231,750	12%
<i>Subtotal Non-University Funding</i>	<i>526,288</i>	<i>28%</i>
TOTAL Authorized Projects	1,913,271	



Project Spending Dashboard

18% of Capital Plan spending has occurred; spending to date varies by source.

Capital Plan = \$1.9 billion



Debt = \$805 million



Local/External = \$581 million



State = \$295 million



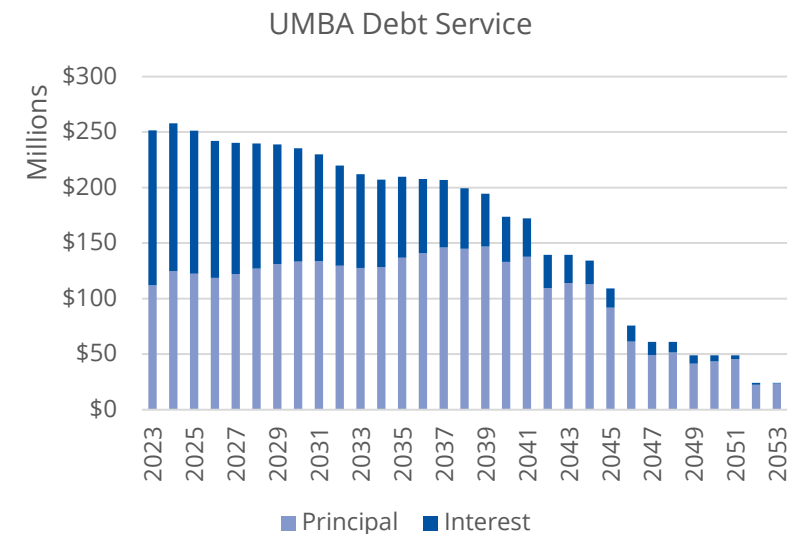
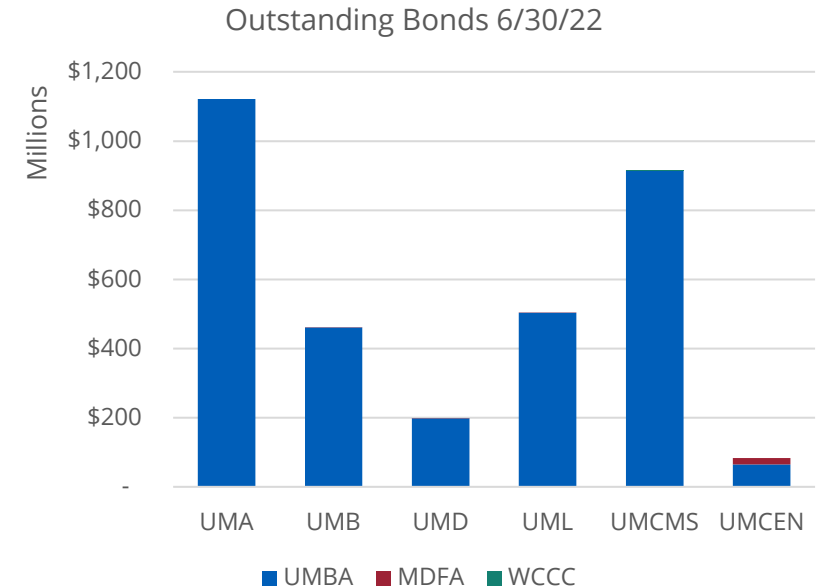
Note: Spending through September 2022. Projects in phases 9A and 9B have been archived due to completion.

University Outstanding Debt

- The University had \$3.3 billion in outstanding bonds as of 6/30/22

- University debt consists of UMBA, MDFA, & WCCC bonds:
 - UMBA debt = \$3.26 billion
 - MDFA debt = \$20.5 million
 - WCCC debt = \$425 thousand

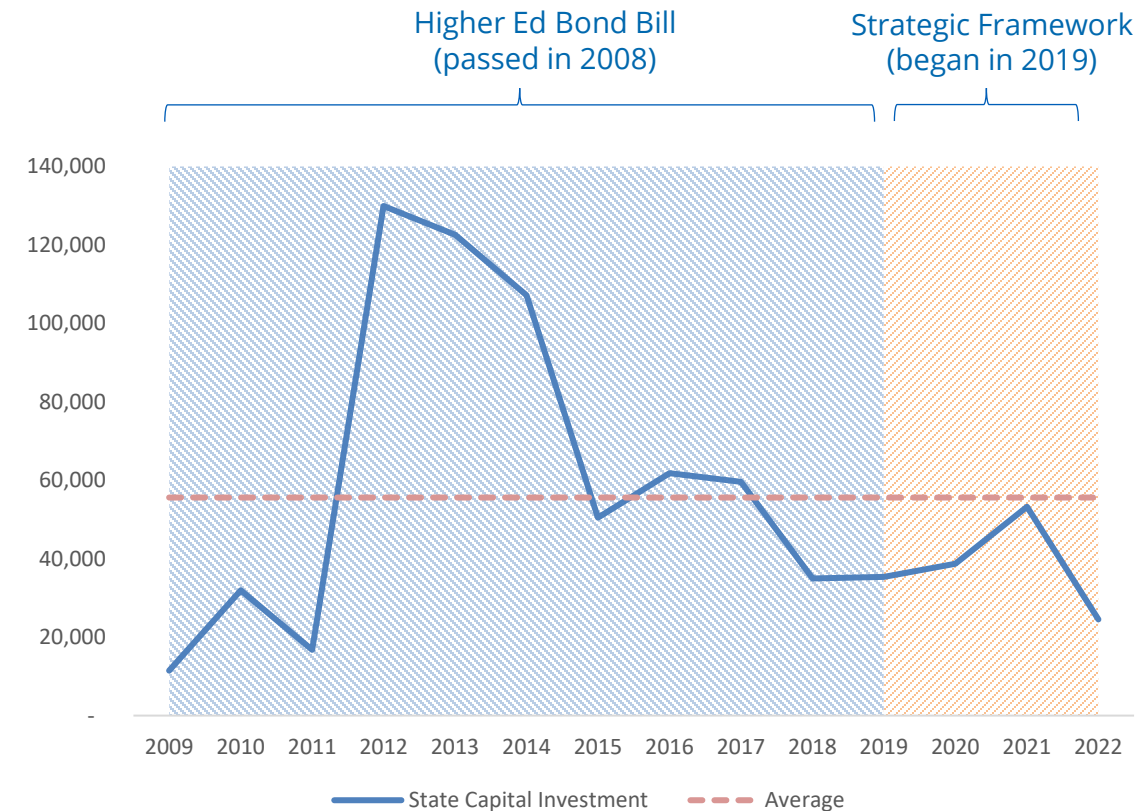
- 59.3% of outstanding UMBA bonds are payable within 15 years



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	\$75M UMA Computer & Information Sciences; \$78M UMB Substructure; \$25M UMD SENG Renovation; \$30M UML Olney Renovation
Accelerated Building Infrastructure	Addresses critical infrastructure needs	\$73M UMD LARTS Renovation
Critical Repairs	Renewal, repair and replacement of equipment, systems and infrastructure (aka deferred maintenance)	\$76M commitment FY19 – FY23 (~\$15M annually)



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
- The 5 UMass campuses together contribute 43% of total Lead By Example portfolio onsite fossil fuel emissions, meaning these campuses play a significant factor in overall portfolio progress

State Priorities:

- Executive Order 594 signed in April 2021; 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

University Sustainability Progress

The University has established key metrics for annual reporting and is continuing to refine methodologies and data sources to measure success.

- **Emissions**: Even as campus square footage has grown, emissions has decreased as a result of energy efficiency projects and adoption of renewable energy
 - Overall emissions have declined by more than 100,000 metric tonnes of CO₂e annually, since FY04 baseline, equivalent to a 28% reduction
 - As of FY21, the UMass system has reduced onsite fossil fuel emissions by roughly 1%. To meet FY25 targets, UMass will need to reduce onsite fossil fuel emissions by ~43,000 MTCO₂e over FY21 values.
- **Energy Efficiency**: While building square footage has grown 46% since the FY04 baseline, overall energy use intensity (kBtu/SF) for the 5 campuses has declined roughly 27%
- **Energy Use**: As of FY21, the UMass system has reduced energy use intensity by roughly 27%. FY19, the last pre-COVID year, shows a 16% reduction over the FY04 baseline
- **Zero-Emission Vehicles**: As of FY21, zero-emission vehicles (ZEVs) make up roughly 7% of the UMass system fleet.
 - UMass system comprises 85 out of 288 (35%) of total EV charging stations deployed at state facilities, currently providing 157 charging ports



University Sustainability Progress

The University has been recognized as a leader in sustainability efforts

- The University is nationally recognized as a leader in sustainability efforts including for individual campus rated by the Association for the Advancement of Sustainability in Higher Education (AASHE)



The Sustainability Tracking, Assessment & Rating System*

(STARS) is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance.

Amherst



Dartmouth



Lowell



Chan Medical School



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 at the pace required to meet DOER's updated goals
 - 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 building envelope and energy efficiency projects to reduce energy demand and address long-standing capital needs

Real Estate & Asset Management

Real Estate & Asset Management

With 374 buildings and 26.0 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	Name of Asset	Amount	Date
Amherst	Mount Ida	75,000,000	Complete - 2018
Amherst	400 Venture Way, Hadley	4,650,000	Complete - 2018
Amherst	472 North Pleasant Street	12,500,000	Complete - 2020
Amherst	North Village Apts Complex	2,042,262	Complete - 2021
Boston	Parking lot improvements (Lots A and C)	2,888,229	Complete - 2015
Boston	Wheatley/Science Building Improvements	2,640,049	Complete - 2021
Dartmouth	Dormitories	15,213,718	Complete - 2023
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	ATMC--Purchase the ATMC	9,972,119	Complete - 2018
Lowell	West Campus (disposition)	4,051,770	Complete - 2019
Lowell	817 Merrimack St and 680 Father Morissette Blvd	5,270,879	Complete - 2023

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 December 2023.

#8. 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

FY22 Actual

16.3%



FY23 Budget

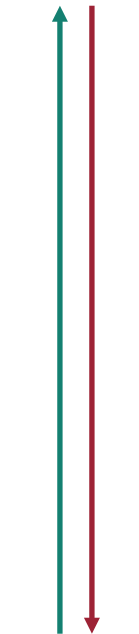
13.6%



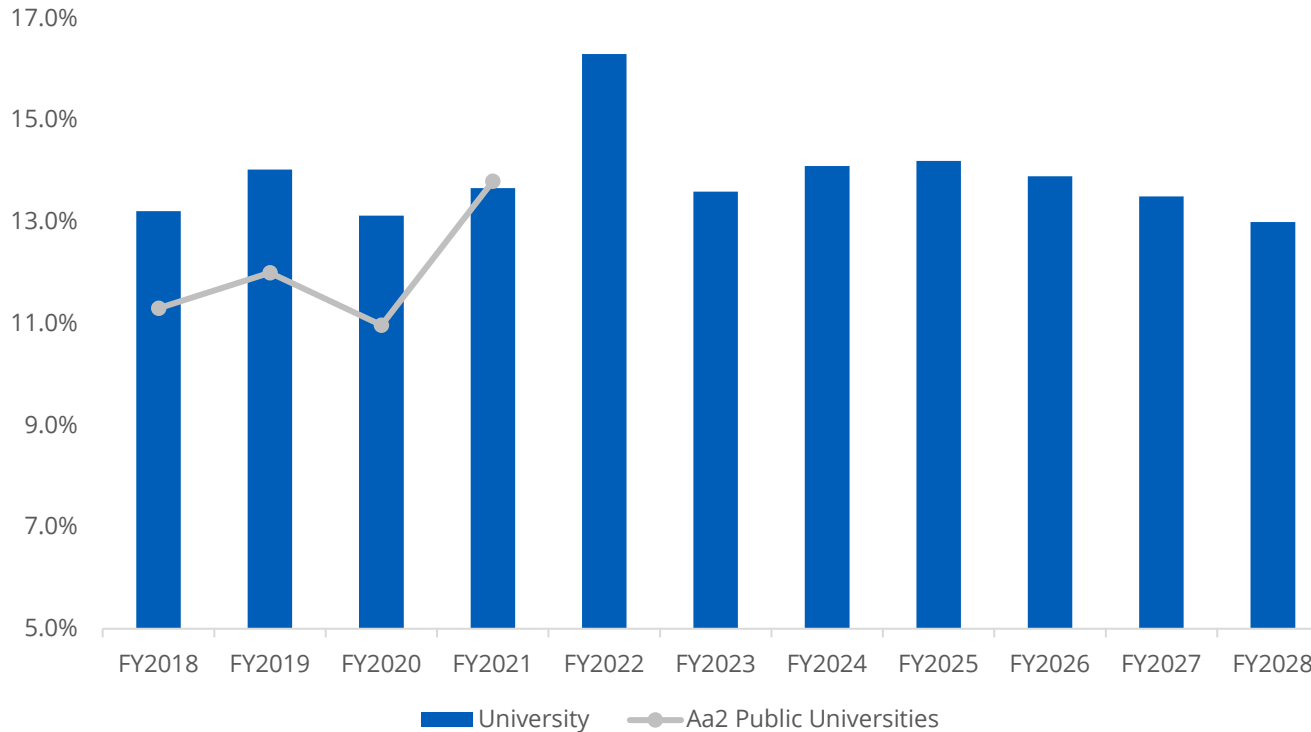
Aa2 Median (FY21)

15.0%

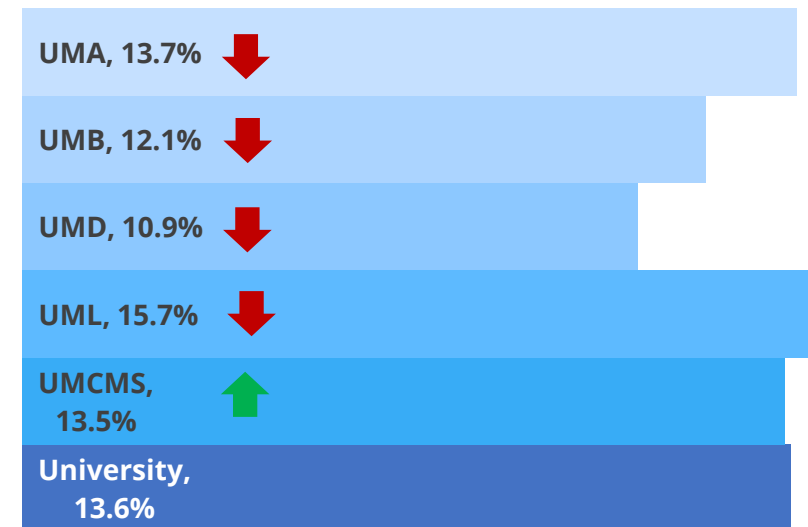
Stronger



Weaker



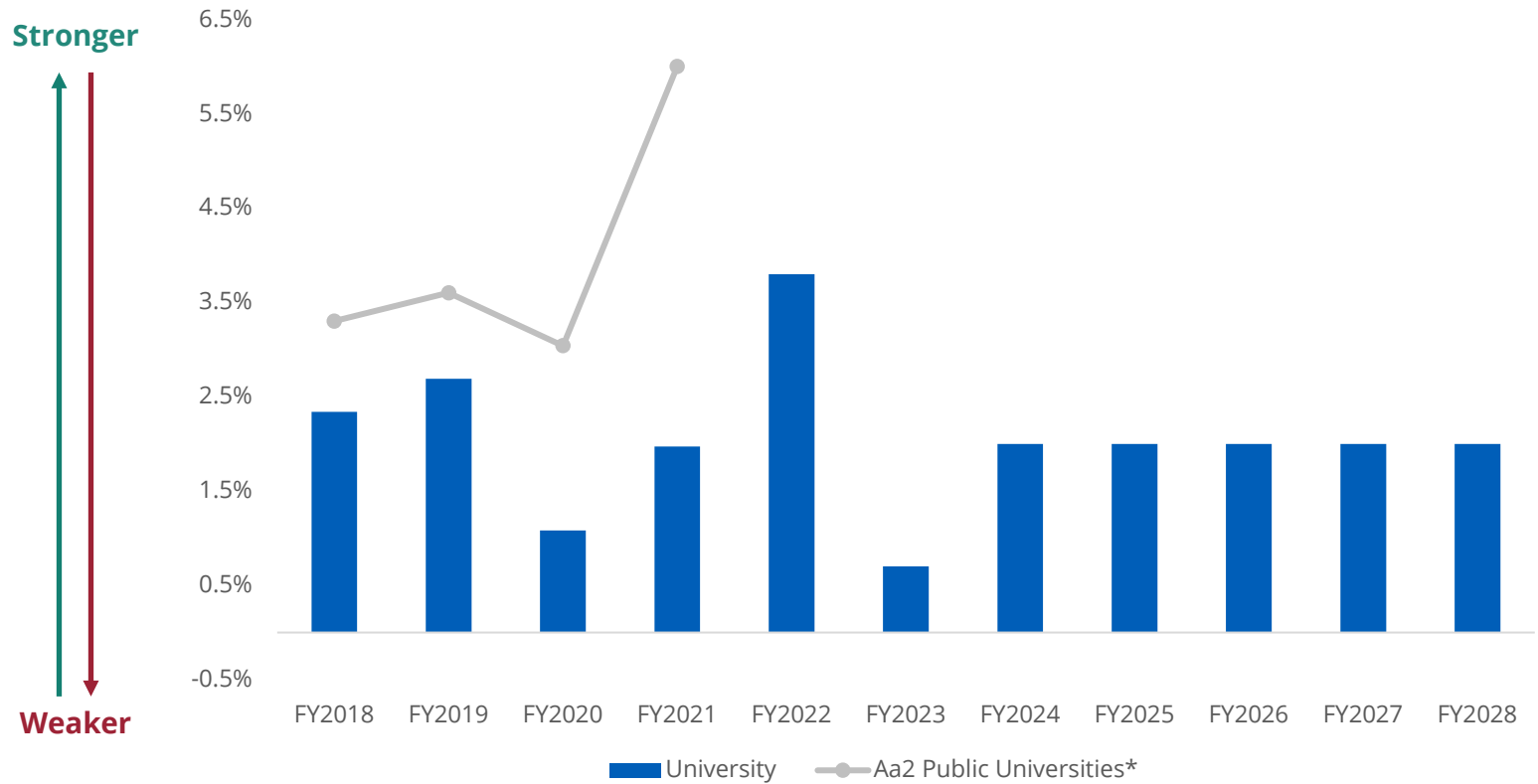
**FY23 Budget
by Campus***



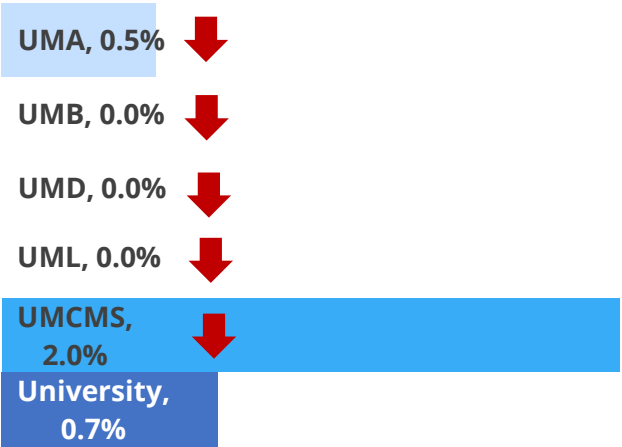
*Excludes UMass Global

Operating Margin

FY22 Actual 3.8% ↑	FY23 Budget 0.7% ↓	Aa2 Median (FY21) 6.0%
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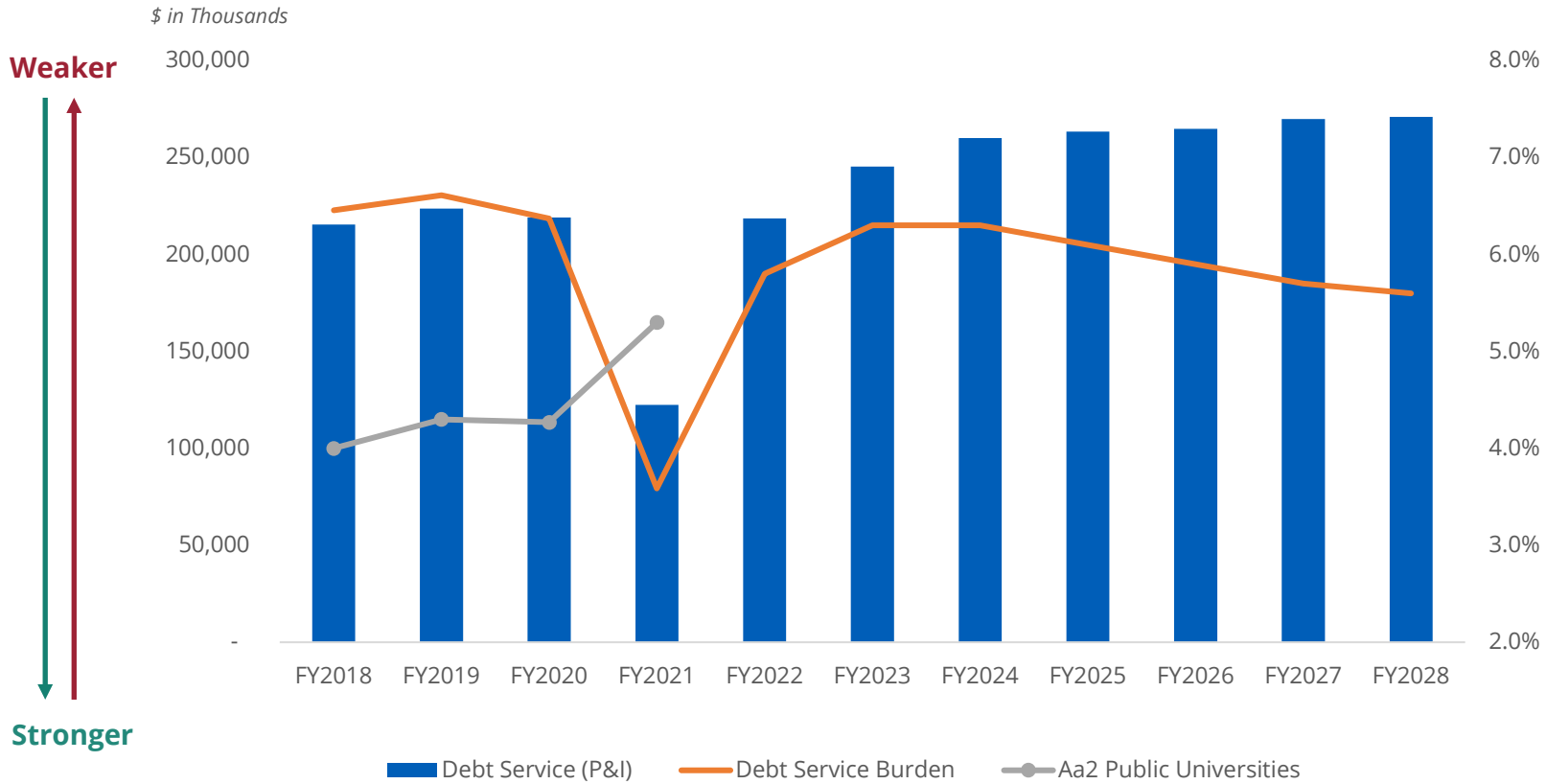
FY23 Budget By Campus*



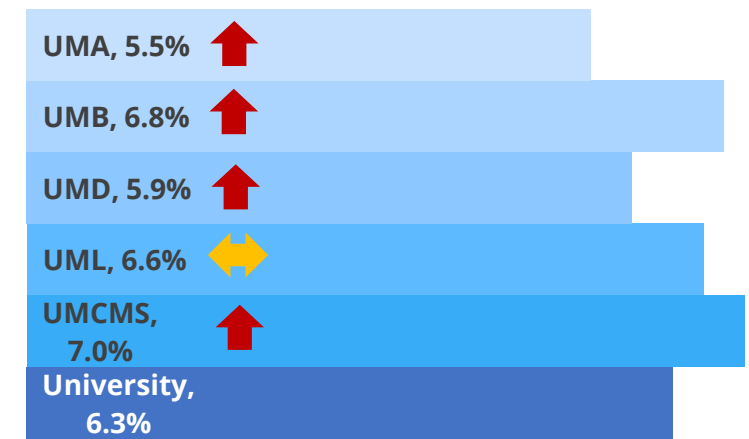
*Excludes UMass Global

Debt Service Burden

FY22 Actual 5.8% ↑	FY23 Budget 6.3% ↑	Aa2 Median (FY21) 5.4%
-------------------------------------	-------------------------------------	-----------------------------------------



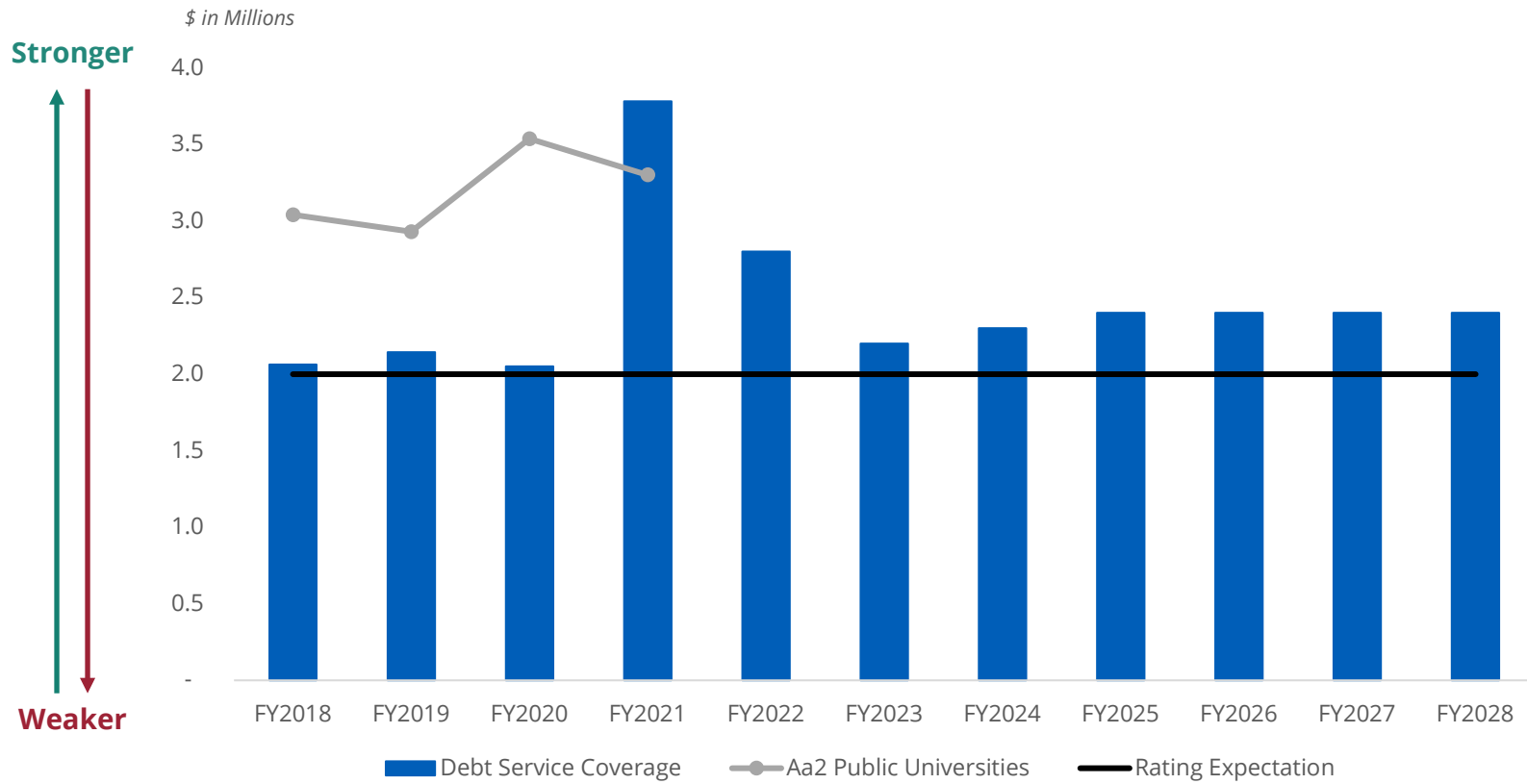
FY23 Budget by Campus*



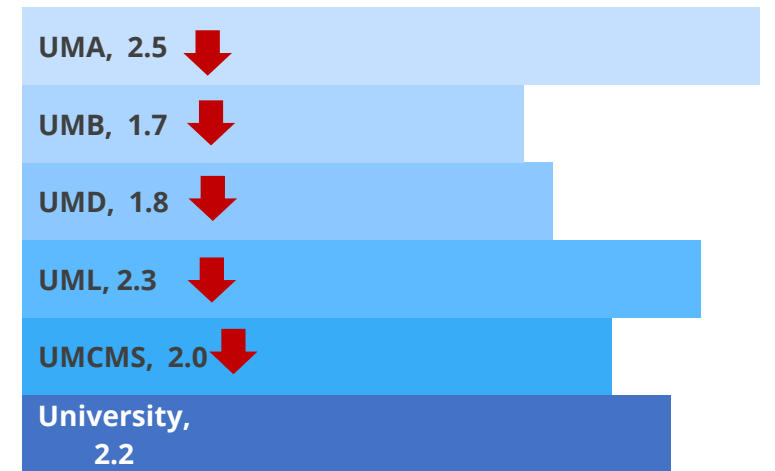
*Excludes UMass Global

Debt Service Coverage

FY22 Actual 2.8x ↓	FY23 Budget 2.2x ↓	Aa2 Median (FY21) 3.0x
-------------------------------------	-------------------------------------	-----------------------------------------



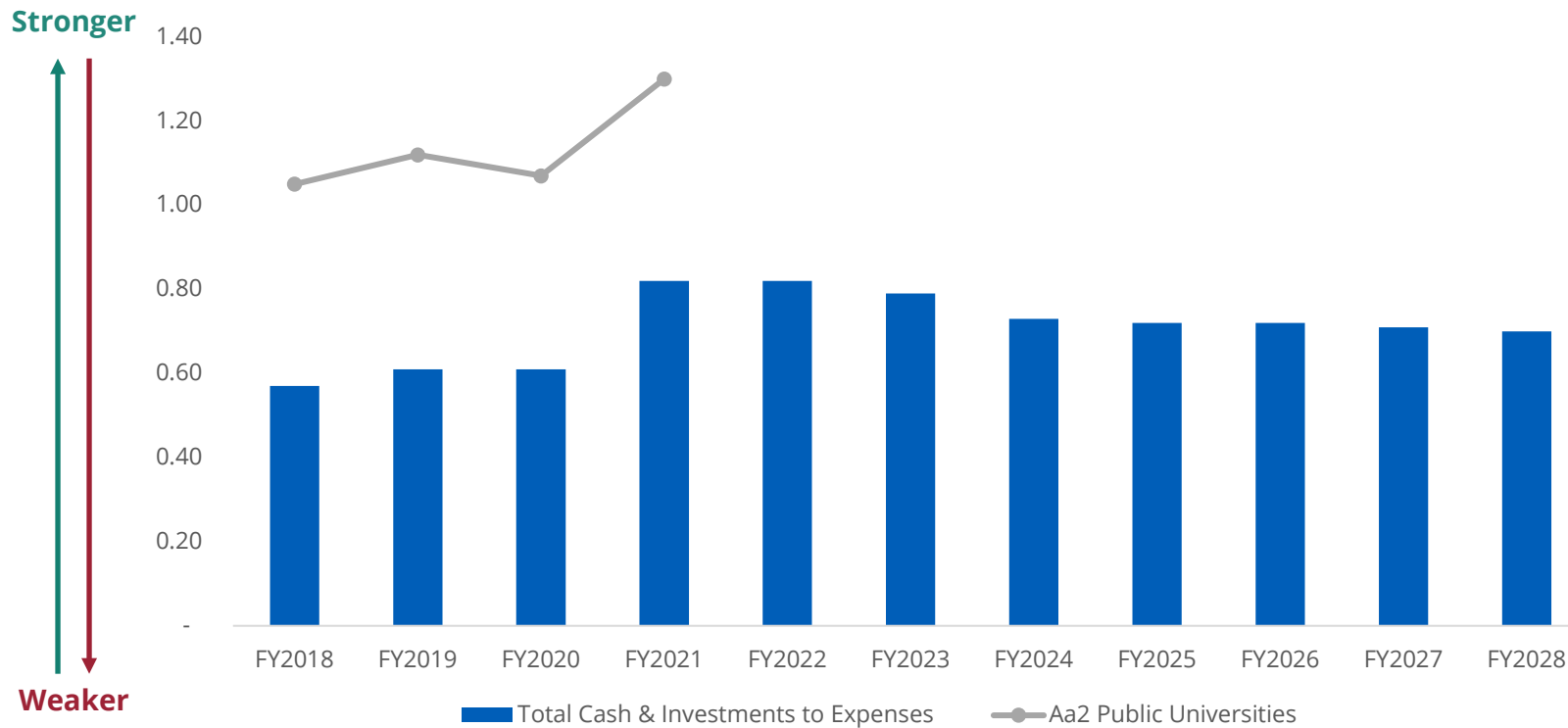
FY23 Budget By Campus*



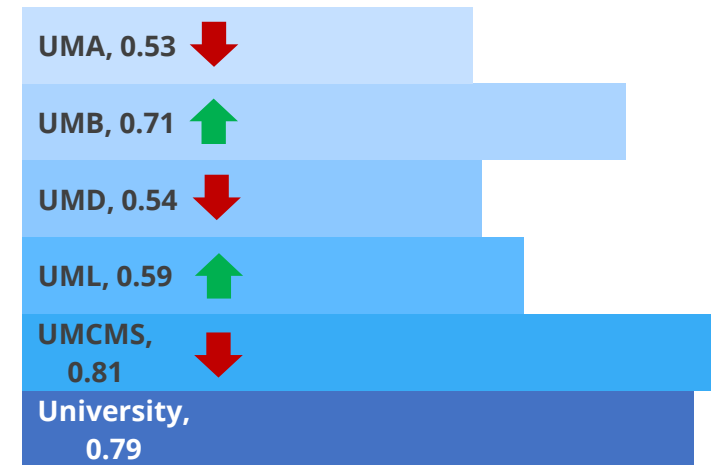
*Excludes UMass Global

Total Cash & Investments to Expenses

<p><u>FY22 Actual</u></p> <p>0.82x ↔</p>	<p><u>FY23 Budget</u></p> <p>0.79x ↓</p>	<p><u>Aa2 Median (FY21)</u></p> <p>1.3x</p>
-------------------------------------------------	-------------------------------------------------	----------------------------------------------------



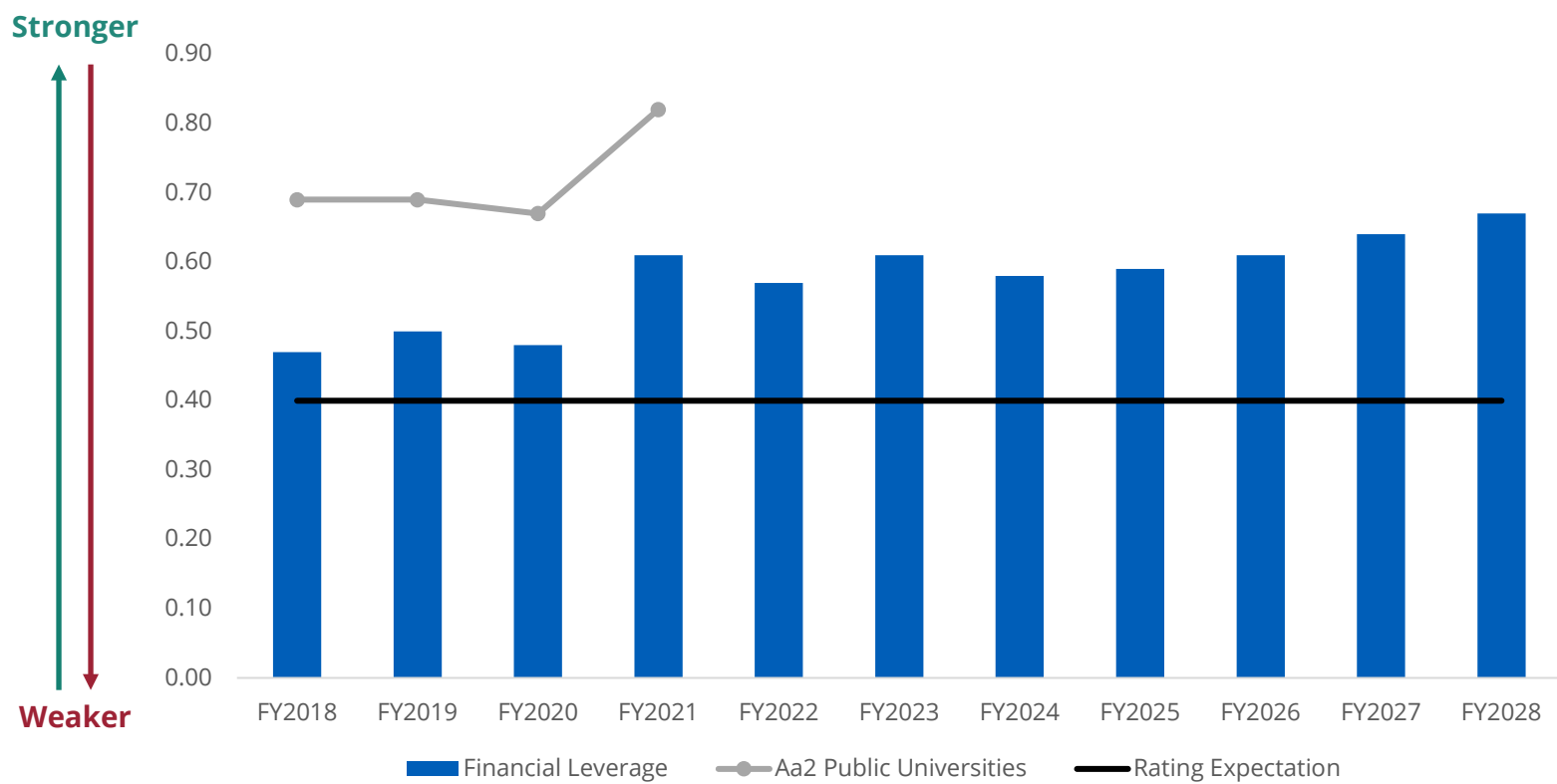
FY23 Budget By Campus*



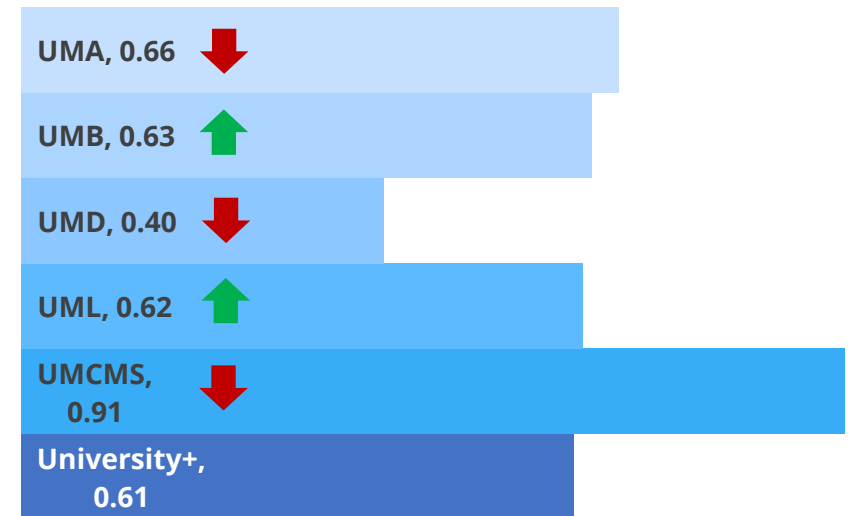
*Excludes UMass Global

Leverage: Total Cash & Investments to Adjusted Debt

FY22 Actual 0.57x ↓ FY22 C&I: \$2.93B	FY23 Budget 0.61x ↑ FY23 C&I: \$2.94B	Aa2 Median (FY21) 0.8x Aa2 C&I: \$2.59B
-----------------------------------------------------------	-----------------------------------------------------------	-------------------------------------------------------------



FY23 Budget By Campus*



*Excludes UMass Global
+Net Pension Liability included at system-level only

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

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

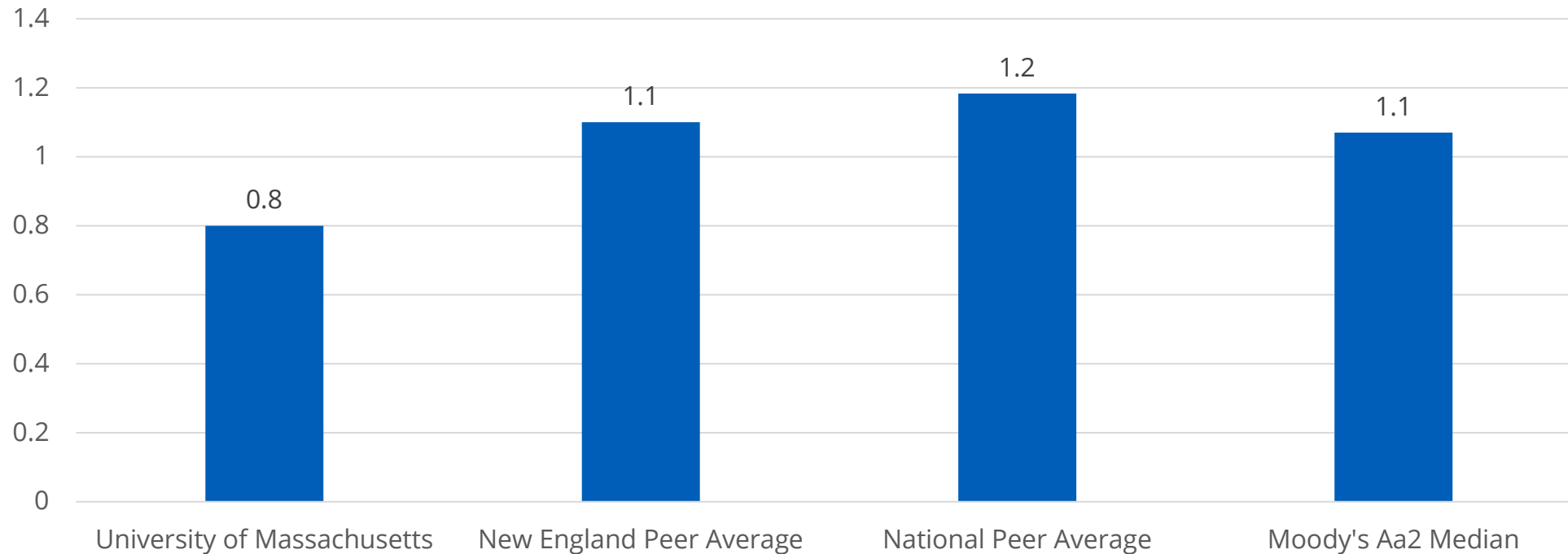
Peer Analysis



Financial Reserves Low Compared to Industry Peers

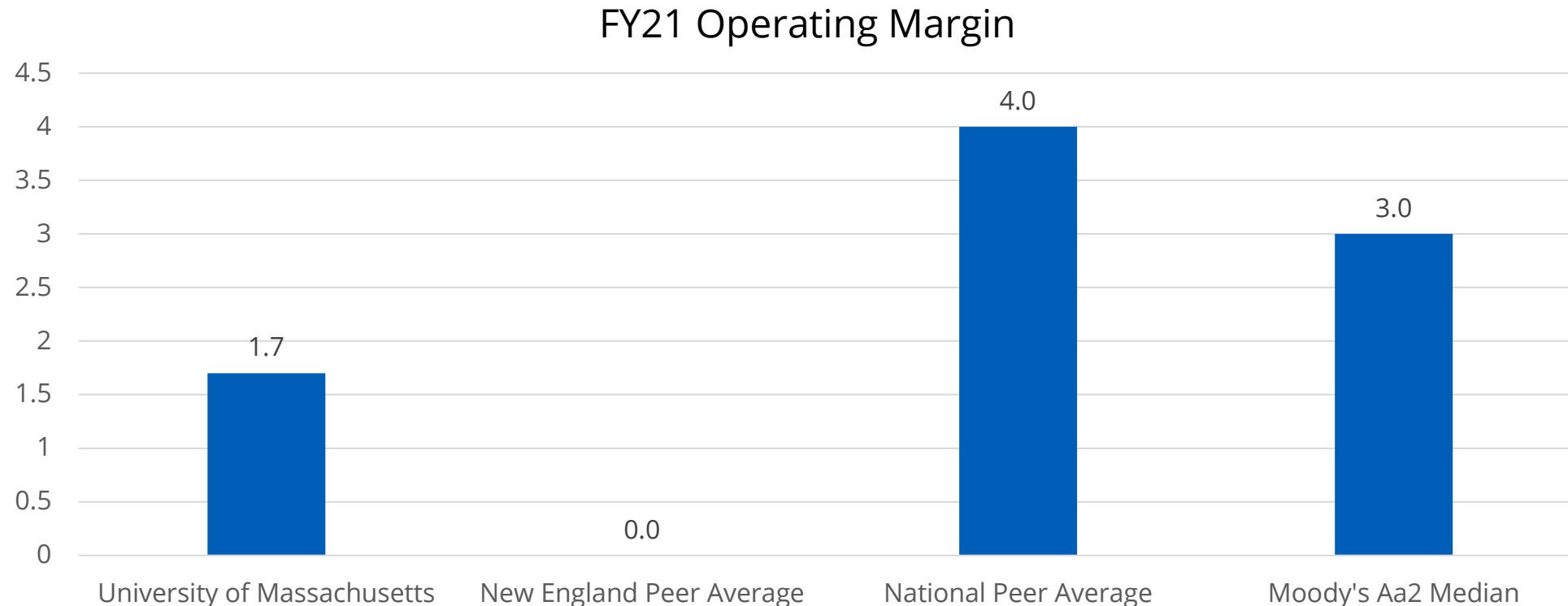
- Moody's Investors Service notes in its last rating report dated March 1, 2022 that the University has financial reserve levels that while growing in recent years, remain below peer levels when compared to both debt and operations.

FY21 Cash & Investments to Operating Expenses



Strong and Improved Management of Operations

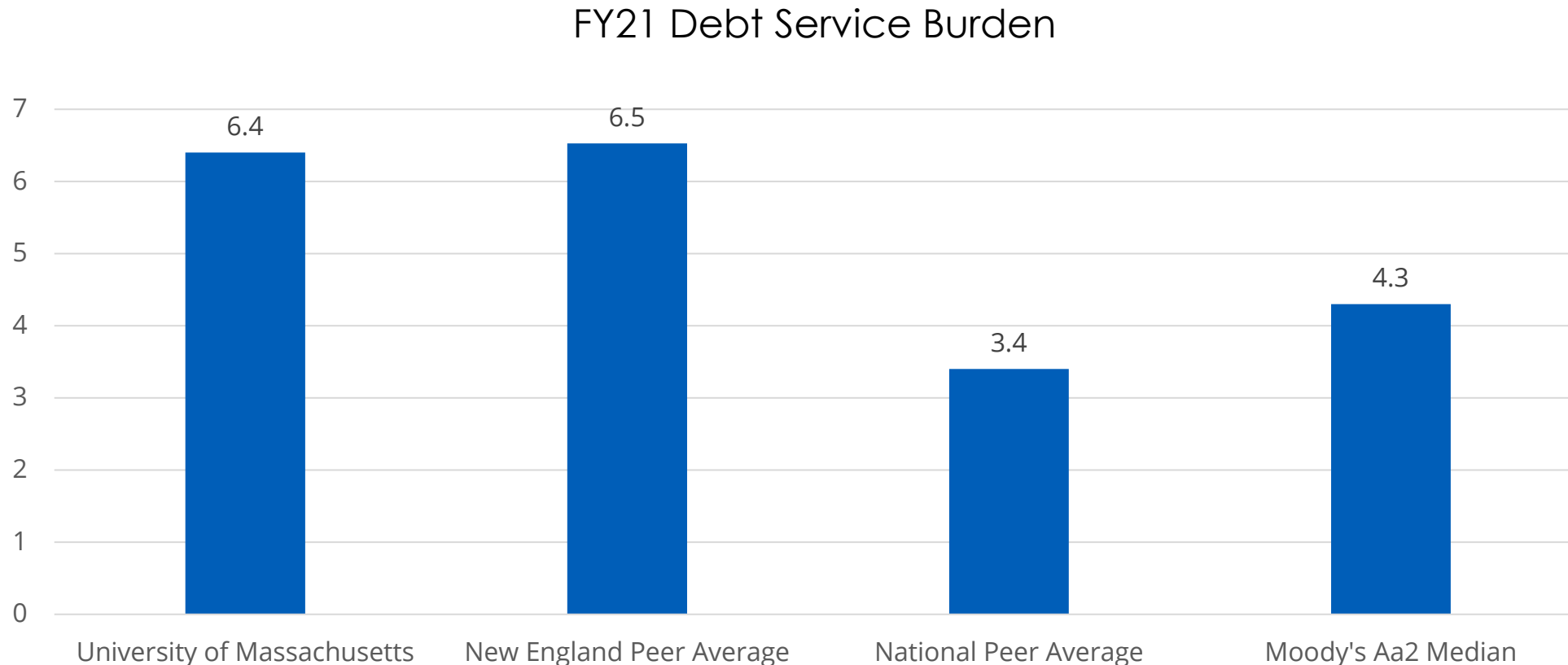
- Despite challenges stemming from demographic shifts and the COVID-19 pandemic, Moody's notes that UMass' disciplined fiscal oversight will limit significant adverse impact to operating performance, and that management's financial accountability framework will underpin steady operations.



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, State University of New York

University Annual Debt Burden High

- Moody's notes in its March 1, 2022 report that the University's leverage is elevated relative to peers, but will remain manageable due to consistency of operating performance and prudent capital planning



#9. Enterprise Risk Management



University of Massachusetts

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

UMass ERM Program Recognition

Recipient of PRIMA's 2022 Outstanding Achievement Award

- Awarded for new risk mitigation assessment framework and tool
- PRIMA is a national association dedicated to the practice of public sector risk management, comprised of 2,000 entities and 1,800 jurisdictions
- Outstanding Achievement for a Public Risk Management Product Award recognizes risk management products that are timely, innovative, and effective for risk managers

2022 Presentations

- University Risk Management and Insurance Association (URMIA) regional conference (April 2022)
- Society of Corporate Compliance and Ethics (SCCE) Higher Education Compliance Conference (June 2022)
- URMIA national conference (September 2022)
 - Chosen as Best of Conference

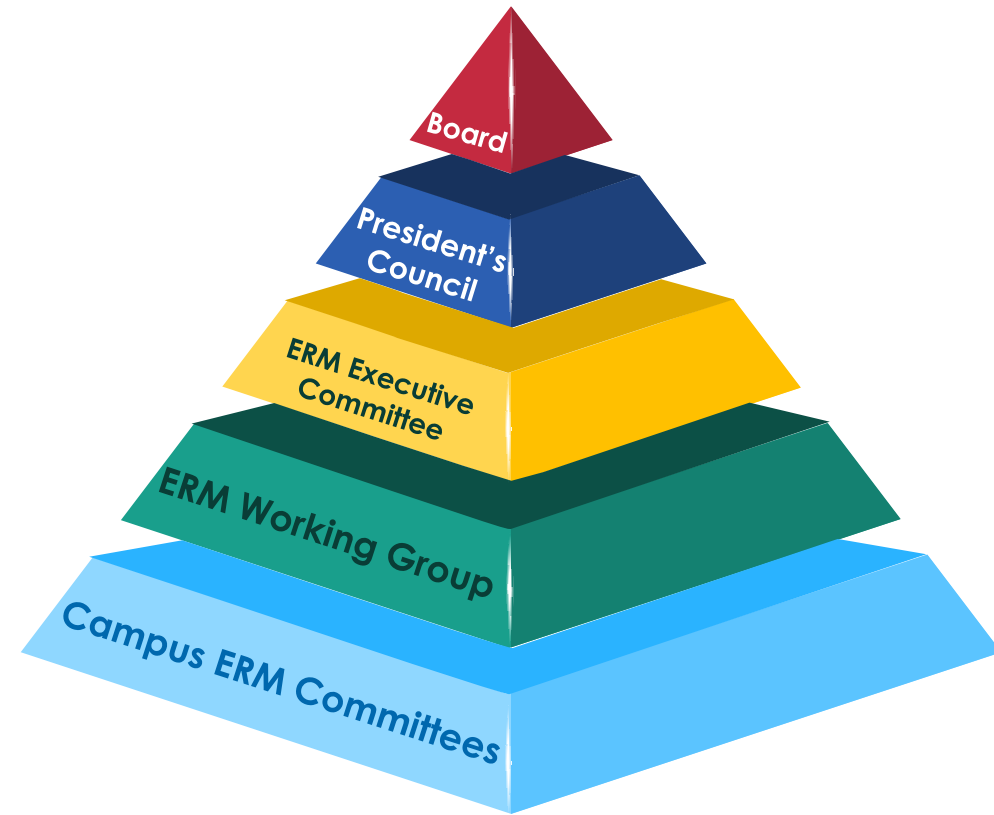
2022 Publications

- PRIMA Blog: [*"Moving Risk Assessment Beyond Heat Maps: Obtaining Meaningful Risk Data to Inform Decision-Making"*](#)
- PRIMA Podcast: [*"Leveraging Enterprise Risk Management as a Crisis Response Tool: A COVID Story"*](#)
- URMIA Insights Article: [*"Measuring Risk Mitigation Strategies' Effectiveness Begins with Assessing Risk"*](#)



UMass Systemwide Enterprise Risk Management Program

- Coordinates systemwide ERM framework through formal governance structure
- Regularly collaborates with:
 - Campus risk and emergency management partners
 - Key partners such as Office of General Counsel and Internal Audit
 - Additional subject matter experts
- Facilitates process to maintain systemwide Risk Registry
 - Proactively identifies, assesses & prioritizes 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 systemwide ERM program has an established two-year program cycle to support a consistent approach to:

- Identify, assess and prioritize risks
- Identify and implement activities to mitigate risks
- Assess the impact mitigation activities have in reducing risk
- Report on ERM program activities

UMass ERM Program is at Medium Program Maturity

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

- Shifting from reactive to proactive management of risks
- Implementing a regular cycle of identifying, assessing, mitigating and monitoring risks which repeats regularly
- Conducting quarterly meetings with the ERM Executive Committee to inform leadership
- Increasing transparency of risk mitigation activities
- Increasing understanding of mitigation activities impact on reducing risk exposure

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.



ERM Program Assesses Inherent Exposure of Risk

ERM Program assesses the inherent exposure of risk, creating a baseline against which mitigation strategies can be measured.

- ERM Program assesses the inherent exposure of each risk by rating risks across three factors:

Likelihood
Could the University experience this risk?

Consequence
How much would the University be impacted by this risk?

Urgency
How soon does the University need to prioritize this risk?

- ERM Program ranks risk by calculating a Risk Score
 - The Risk Score is generated by multiplying the risk ratings



FY2022 Systemwide Risk Registry

■ Priority Risks

Rank	Risk	Rank	Risk	Rank	Risk
1	Enrollment	11	All Hazards Planning & Response Capabilities	21	Alcohol and Substance Abuse
2	Information Security	12	Multi-State Payroll Tax	22	Crisis Communications
3	Financial Sustainability	13	Labor Relations	23	Immigration Rules and Regulations
4	Facilities and Deferred Maintenance	14	Data Management	24	Fraud, Waste, and Abuse
5	Student Health & Mental Health Support	15	Research	25	Uninsured Loss
6	Vendor Risk Management	16	Multi-State Business Tax	26	Employment Laws and Regulations
7	Attract, Recruit, Retain Faculty and Staff	17	Sexual Assault Policies & Response Procedures	27	NCAA Regulations
8	International Activities	18	IT Disaster Recovery	28	Policies and Procedures Regarding Minors on Campus
9	Information Privacy	19	Continuity Planning	29	Academic Quality and Standards
10	Diversity, Equity, Inclusion and Accessibility	20	Environmental Health, Public Health, & Safety Regulations	30	Oversight of Student Organizations

Continued Maturation

ERM Program developed a methodology and tool to document and assess the effectiveness of mitigation strategies on risk.

- Documenting and assessing risk mitigation strategies are critical components of a mature ERM Program
 - Creates transparency on the depth and breadth of ongoing activities that reduce risk exposure
 - Aligns mitigation assessment with risk assessment to enable comparison of inherent and residual risk exposure
 - Better informs decision-making by increasing understanding of how effective mitigation strategies are in reducing risk exposure
- Mitigation identification and assessment is facilitated by the ERM Program, but conducted by risk mitigation partners
- Mitigation assessment work is underway; preliminary results on three of the Top 5 Risks were presented to BOT in December 2022

Mitigation Assessment Methodology

Individual Effectiveness

Measure the effectiveness of an *individual* mitigation strategy on reducing risk exposure

Comparative Effectiveness

Compare the effectiveness of *multiple* mitigation strategies on reducing risk exposure

Aggregate Effectiveness

Measure the *aggregate* effectiveness of all risk mitigation strategies on reducing risk exposure

Mitigation Assessment – What It Does and Does Not Tell Us

Mitigation Assessment provides leadership with information to inform discussion about whether to accept the residual risk or take additional actions to avoid, transfer or further reduce risk

Does

- ✓ Provides transparency on risk mitigation strategies
- ✓ Demonstrates progress on mitigating risk or depicts areas that may require additional attention
- ✓ Enables more robust discussions on risk and risk mitigation
- ✓ Demonstrates movement in addressing risk

Does Not

- ✗ Does not track key performance indicators
- ✗ Does not define risk tolerance
- ✗ Does not define specific follow-on actions needed
- ✗ Does not conclude satisfaction or dissatisfaction with status of addressing risk



Information Security

# Strategies	17
Risk Mitigation Partners	<ul style="list-style-type: none"> • Campus Chief Information Security Officers • UITS
Key Observations	<ul style="list-style-type: none"> • Substantial progress has been made systemwide • Campus readiness varies • More detailed information will be provided in Executive Session

Effective

More Effective



Preliminary Individual and Comparative Mitigation Strategy Assessment

1	Incident Detection and Response
2	Attack Resistance
3	Communications Protection Identity and Access Management Vulnerability Management
4	Business Continuity/Disaster Recovery Data Management Data Theft Resistance
5	Data Loss Prevention Network Protection Third-Party Assessment
6	Administrative System Access Managed Cloud Environments (IaaS) Third Party Penetration Testing Training/Awareness
7	Cyber Security Insurance Optimization





Financial Sustainability

# Strategies	19
Risk Mitigation Partners	<ul style="list-style-type: none"> • UMPO A&F Team • Campus Budget Directors • Campus Controllers
Key Observations	<ul style="list-style-type: none"> • Reporting and tracking increase transparency and inform decision-making • State financial support is essential to sustainability

Effective

More Effective



Preliminary Individual and Comparative Mitigation Strategy Assessment

1	State Financial Support State Funding of CBA Increases
2	Reporting: Quarterly Budget Projections & Annual Budget Reporting Reporting: Quarterly Capital Reporting & Biennial Capital Plan
3	Reaching/Maintaining 2% Operating Margin Cash Flow Modeling and Projections Reporting - Annual Five-Year Forecast Refresh Reserve Policy SPARC Dashboard UMass Global Financial Reporting
4	Maintaining Availability of Line of Credit Operating Cash Invested with Foundation Implementation of UMPlan for Annual Budgeting UMPlan - Financial Forecast Module UMPlan - Tuition Planning Module
5	Compliance with Federal Grants
6	Monitoring Standard Metrics Adoption and Forecasting of Changes in GASB Appropriate Account Treatment for P3s





Facilities & Deferred Maintenance

# Strategies	7
Risk Mitigation Partners	Facilities and Deferred Maintenance Working Group (EE)
Key Observations	<ul style="list-style-type: none"> • Systemwide tracking provides increased transparency and informs decision-making • Targets for catch up and keep are newly established • This reflects progress from a systemwide perspective; campus level assessments have not been completed

Preliminary Individual and Comparative Mitigation Strategy Assessment

1	Reaching/Maintaining Keep Up Targets
2	Reaching/Maintaining Catch Up Targets
3	Reporting – Biannual Capital Plan Reporting – Quarterly Capital including Catch Up and Keep Up
4	Annual Update of Campus Deferred Maintenance (Gordian) Capital Policy
5	Tracking Spending Against DCAMM Contracts

Effective

More Effective



Aggregate Movement in Reducing Risk Exposure



Information Security



Financial Sustainability



*Facilities and
Deferred Maintenance*



 Assessed Residual Risk

Moody's Began Phased Roll-out of ESG Scores Across Higher Education in 2022

New ESG Scores Transparently Demonstrate Impact of ESG Risks on Credit Rating

- ESG considerations have always been included in fundamental credit analysis
- New ESG scoring approach does not change credit rating
- ESG scores are NOT an opinion on University's sustainability performance; strictly focused on credit risks

Issuer Profile Score (IPS)

Assessment of the issuer's exposure to ESG risks/benefits material to the credit rating, including relevant mitigants

Examples:

E-2

Neutral-to-Low



S - 3

Moderately Negative



G-2

Neutral-to-Low



- Scores are global and comparable across sectors
- Incorporate management's actions/mitigants
- E-1, S-1, or G-1 (positive) only assigned when considerations have material credit benefit

Credit Impact Score (CIS)

Reflects the impact of ESG on the credit rating.
NOT a combination of the E, S, & G Issuer Profile Scores

Example:

CIS - 3

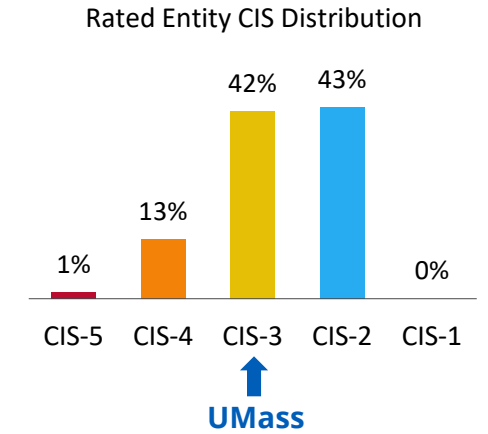
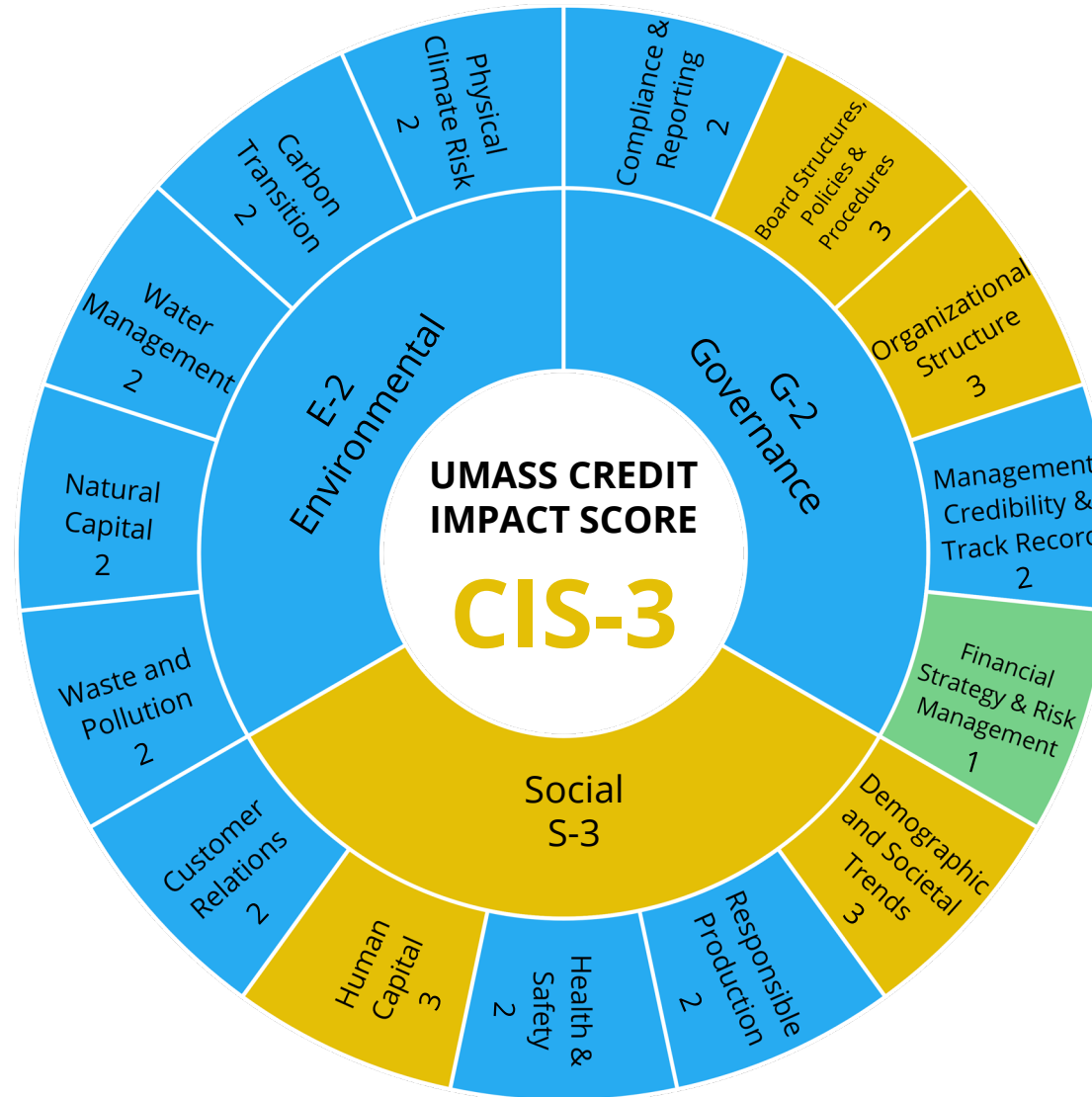
Moderately Negative



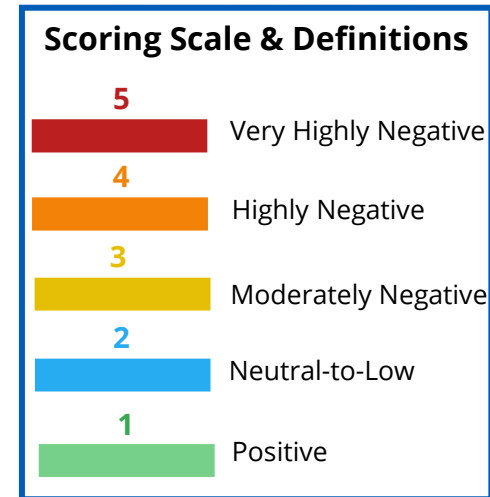
- Indicates the extent to which the credit rating would have been different in the absence of ESG issues
- Places ESG in the context of other rating considerations

UMass Recognized for Quality, Financial Strategy, & Risk Management

- Moody's notes UMass' strong financial strategy and risk management with a score of "1-Positive"; **only 11% of ESG-rated institutions scored this high in the category.**
- UMass' credit impact score (CIS) of 3 reflects ESG attributes that have a limited impact on the current rating now, with greater potential for future impact over time.
- Exposure to social risks is moderately negative due to the trends in demographics of high school populations in the Northeast.



MOODY'S
INVESTORS SERVICE



#10. UMass Efficiency & Effectiveness



University of Massachusetts

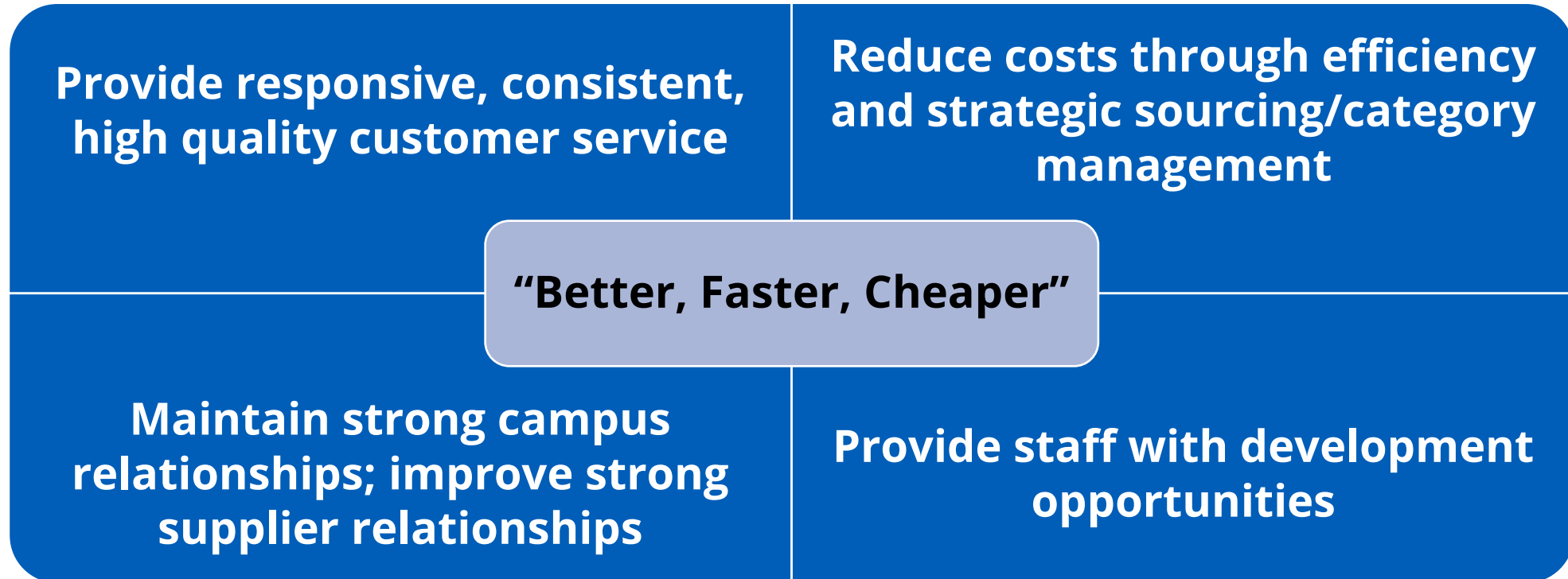
Amherst • Boston • Dartmouth • Lowell • Medical • Law • Online

Key Highlights

- Unified Procurement Services Team (UPST) recently celebrated three years of creating efficiency and effectiveness for the University. The team was established in January 2020.
- Over \$87.2 million in cost savings have been achieved through more than 280 sourcing initiatives across all five campuses since the launch of UPST.
- UPST continues to achieve its mission of providing “better, faster, cheaper” services to the University, through actualization of a process improvements and cost savings projects while driving system-wide contracts adoption.
- UPST continues to work with the campuses to drive UMass Environmental, Social, and Governance (ESG), Supplier Diversity and Sustainability goals through our suppliers
- 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
- Campus feedback loop for process improvement
- Robust warranties
- Supplier Diversity considerations
- Streamline supplier in-take process

Tactics Achieving Objectives:

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

Ease of Administration (FASTER)

Strategies Identified:

- Approved UMass product catalogs
- Vendor consolidation
- Enterprise-wide agreements and policies
- Greater adoption of automation, i.e., invoice intake
- Pre-negotiated contracts and pricing available to users

Tactics Achieving Objectives:

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

Cost Discipline (CHEAPER)

Strategies Identified:

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

Tactics Achieving Objectives:

- Over 280+ 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
- Monitoring campus contract adoption to manage leakages

FY2022 UPST by the Numbers

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



\$923M in total annual spend



15K+ travel authorizations processed



\$53.3M in actualized savings



120+ sourcing/bid events completed



248K+ invoices processed



2.5K contracts created



170K+ purchase orders processed



27K+ customer service requests resolved



27K+ active suppliers



7K+ suppliers set-up

Cost Savings & Other Benefits

Over 280 initiatives across all 5 campuses have saved \$87.2 million between January 2020 and June 2022

\$87.2 million

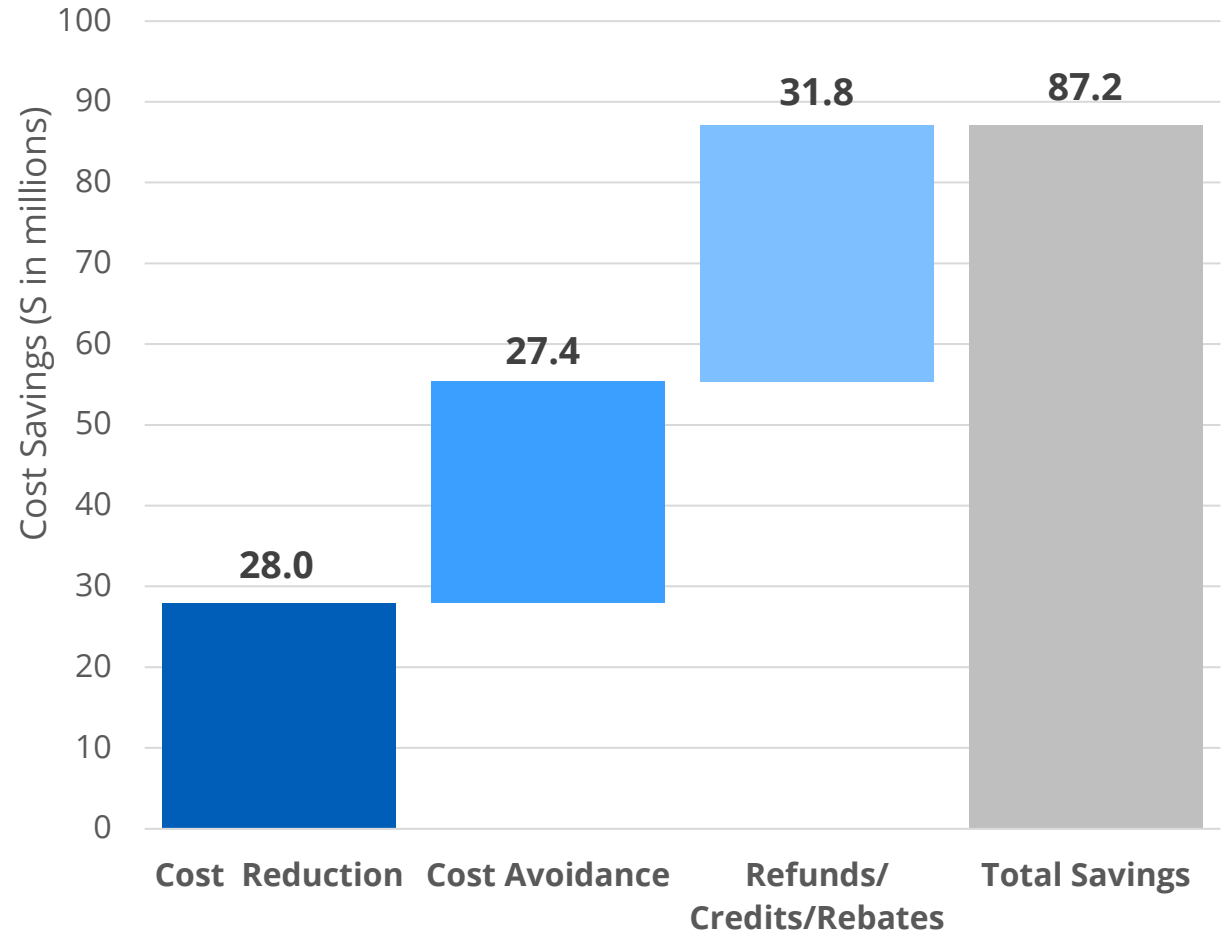
FY20: \$11.6 million

FY21: \$22.3 million

FY22: \$53.3 million

System-wide benefits:

- **5X** target savings (\$16.5M - FY20)
- **8X return on investment** in UPST to date (\$10.6M)
- Savings equivalent to **21%** tuition & fee increase



Cost Savings Details

UPST continues to pursue cost benefits through systemwide engagements

Spend Category	FY20 Savings	FY21 Savings	FY22 Savings
Capital (Non-Construction) ⁽¹⁾	277,835	129,773	30,645,161
General Services & Supplies ⁽²⁾	1,479,612	3,974,883	1,484,527
IT/Telecom	1,855,790	4,846,920	1,492,516
Marketing & Advertising	-	648,342	1,200,000
Maintenance, Repair, Operations	232,963	391,461	826,369
Professional Services	20,833	1,382,900	1,093,903
Subtotal	3,867,033	11,374,278	36,742,476
Energy ⁽³⁾	3,526,000	4,900,000	5,600,000
Construction	4,179,905	6,031,752	10,969,789
Grand Total	11,572,938	22,306,030	53,312,265

(1) Includes \$30million from asset sales i.e., EBS Spectrum;

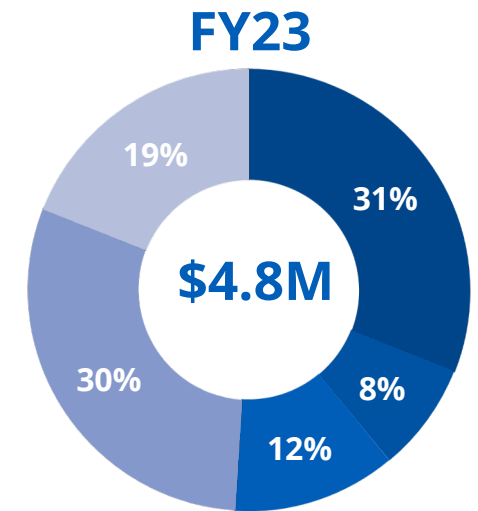
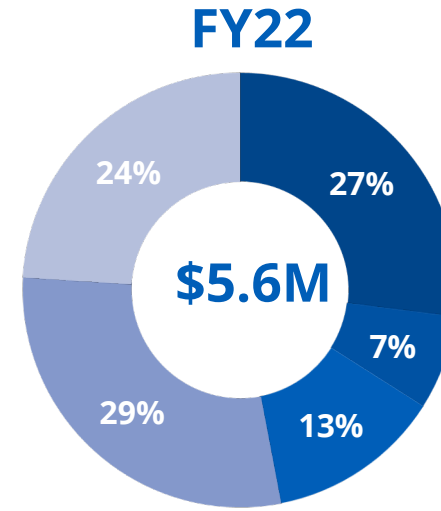
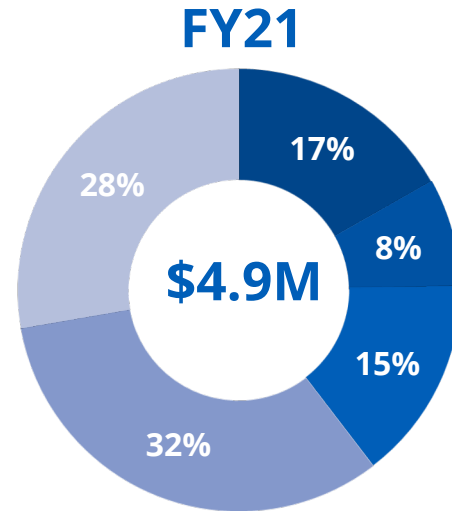
(2) Library Services initiative savings included in General Services spending category;

(3) Projected savings from energy credits, a sub-set of overall savings from energy contracts

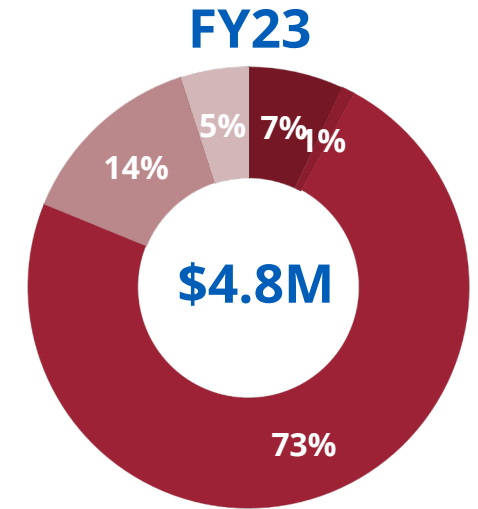
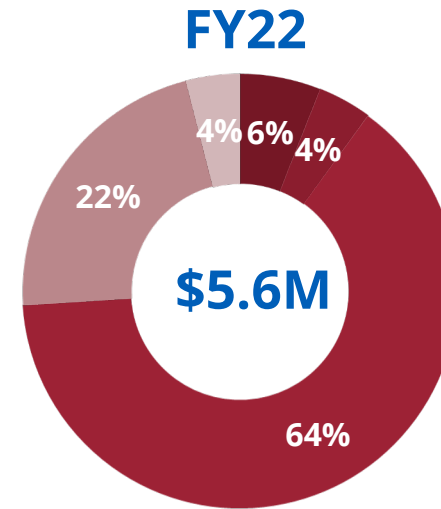
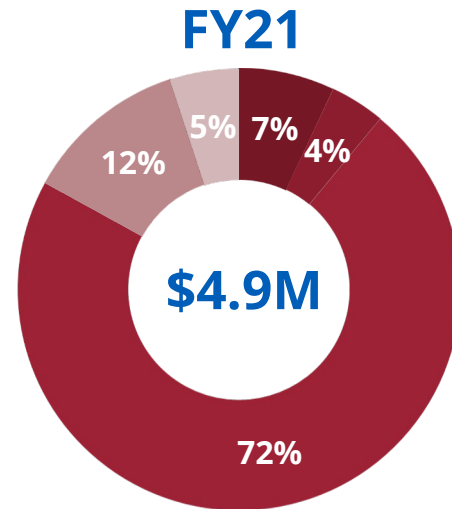
Energy Sourcing

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

- Campus
- UMA
 - UMB
 - UMD
 - UML
 - UMCMS












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



UPST FY22 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		\$53.3M (12 months)	\$16.5M (18 months - 2020)
Requisition to PO in 1 business day		86%	88%
Early payment discounts		87%	80%+
Late payments (over 30 days)		16%	<15%
Travel & expense approval		5 days	8 days
Supplier set-up		11 days	8 days
Invoices received electronically		50%	58%
Diverse supplier spend*		6.9%	N/A
Contract creation		5 days	N/A

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

UMass Supplier Diversity & Sustainability Highlight

Overall FY22 diverse supplier spend, and count are up when compared with FY21 achievements

- **+16% increase** in overall UMass spend from FY21 (\$797M) to FY22 (\$922M), diversity spend trended positively as follows:
 - **~35% increase** in number of diverse suppliers transacted with in FY22 (906) from FY21 (672)
 - **~25% increase** in diverse supplier spend from \$51M (FY21) to \$64M (FY22)
- Continued push for diverse sub-contractor usage by UMass prime suppliers
- Partnership with a supplier data enrichment company, TealBook, to drive visibility and reporting on UMass supplier sustainability and diversity spending. Sustainability reporting to target:
 - Insight into spend with suppliers that have sustainability qualifications / certifications, providing reports that drive decision making on how to achieve UMass sustainability needs

Diverse Supplier Spend Highlights

UMass Diversity Classifications	FY21 \$/% of Diverse Spend		FY22 \$/% of Diverse Spend	
Minority-owned Business Enterprise (MBE)	\$25M	3.2%	\$21M	2.3%
Women-owned Business Enterprise (WBE)	\$19M	2.4%	\$18.8M	2%
Small Disadvantaged Business (SDB) & Disadvantaged Business Enterprise (DBE)	\$0.4M	0.05%	\$17.2M	1.9%
Veteran-owned Business Enterprise (VBE)	\$3.6M	0.45%	\$6.8M	0.7%
Service Disabled Veteran Business Enterprise	\$2.5M	0.3%	\$0.02M	0.002%
LGBT Owned Business Enterprise	\$0.02M	0.003%	\$0.02M	0.002%
Others [<i>Certified Aboriginal Business (CAB), Hubzone Certified (HUB) & U.S Department of Housing and Urban Dev. (HUD)</i>]			\$0.16M	0.02%
Total Diversity Spend	\$51M		\$64M	
Total Spend	\$797M		\$922M	
% of Diverse Spend	6.4%		6.9%	

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 FY22

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 Security and Auditability by implementing industry standard tools to enhance authentication, authorization and auditing of events on the Universities ERP systems and shared data centers.

Supported the rollout of the Commonwealth Collegiate Academy (CCA) program through the creation of a new website featuring dynamic content as well as the Inter-Campus Course Exchange (ICX) program through a redesigned content system; enabling campuses to dynamically retrieve program listings into their websites.

Managed Digital Accessibility for the President's Office by partnering with Procurement and General Counsel's offices to ensure: products and vendors meet and exceed established guidelines, provide resources and training for staff on developing and procuring accessible products, and provide testing for products and services provided by the President's Office.

Enhanced and revised Advancement Technology strategy to improve existing support and services while aligning business processes to identify a more collaborative approach to future technology decisions so that advancement teams at all campuses can exceed fundraising expectations.

Office of General Counsel

Providing internal legal, regulatory, compliance and ethics guidance & support on issues related to university operations through Coordination, Collaboration, Cooperation, Communications & Collegiality – “The 5 C’s”

External Legal Spend cost efficiencies and effectiveness through consistently adjusted approaches and disciplined SOPs related to management and supervision of internal and external legal services, including litigation and other programmatic services [see below] resulting in highly significant cost savings and more effective OGC services to UMass.

5 C’s Groups: Title IX; NECOC (N.E. GC’s); Real Estate and Contract Services; Athletics; International Business Group; IP; Immigration, Export Control, Compliance & International Affairs; Litigation; Labor/Employment

- Continued regular and consistent recurring OGC chairing and management of system-wide staff with the campuses, UMass related entities and external partners through the OGC created and established 5C’s groups, which meet on an agenda-focused recurring basis to discuss programmatic related issues that result in greater operational and policy related efficiencies and effectiveness as well as prioritized uniformity and consistency in UMass effectuation of policies, practices and procedures across the University system.

Systemwide Enterprise Risk Management Program

A systemwide, shared understanding of risk and the University's capacity to reduce risk exposure increases transparency and supports informed decision-making

The University's systemwide enterprise risk management (ERM) program works collaboratively across the system to:

- Identify and assess the inherent exposure of risk on the University
- Prioritize risks
- Document risk mitigation strategies and assess their impact in reducing risk exposure



The ERM program continues to mature and provide value to the University



The ERM program developed an award-winning tool to increase the University's understanding of the impact of mitigation strategies in reducing risk exposure

- Public Risk Management Association (PRIMA) 2022 Outstanding Achievement for a Public Risk Management Product



Employee Services Team


The Employee Services Team (EST) delivers payroll, travel and expense, and application management services to all campuses to ensure accurate and timely processing

Payroll services include overall payroll processing coordination, data quality assurance, garnishment processing, and payroll tax reporting.

Travel and Expense services include review, audit, and approval of travel and expense transactions across the University. Coordination and management of technology to support travel and expense

Application management services including supporting the University's core human resources application, used for human resource management, payroll, time and labor, benefits management, and commitment accounting

Employee Services Team – Payroll By the Numbers

 **\$1.6 Billion** Annualized Gross Payroll

 **3,182** Multi-State employees**
CT-702, FL-77, ME-95, NH-912, NY-397, RI-852, TX-52, VT-95

 **\$63.2M** Gross Payroll per pay period (Avg.)

 **43,999** Employees received a W2**
Non-Student-25,079
Student-18,920

 **35,464** Employees per pay period (Avg.)

 **200+** W2-c forms processed**

 **6,000+** employee retroactive payments

 **500+** Payroll case resolutions

** Calendar Year 2022

What's Next?



UPST Targets for FY23

- Our focus is on strengthening and achieving the targets/themes set in FY22 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 & sustainability practices (automation & engagement)
 - Improved software asset management practices
 - Promote greater automation opportunities to address high volume, manual activities
 - Broaden vendor performance management skills across the UMass stakeholder community

Future Focus: Key Themes

Moving UPST to further achieve **Better, Faster, Cheaper Targets** include:

Increase Proactive Strategic Sourcing

- Contract management process automation*
- Continued leverage of 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 and 'self serve' spend analytics capabilities
- Additional supplier catalog enablement and status dashboard development
- Systemwide contract Adoption views and inflight sourcing and contracts pipeline

Supplier Engagement & Development

- Supplier performance management program design and training programs
- Supplier portal roll-out and vendor portfolio-wide data cleansing programs
- Enhanced supplier diversity and foundational environmental metrics rollout

Project Fast Lane - Summary

Project Fast Lane is a university-wide project to transform the travel and expense functions for all faculty, staff, and students. The Project will bring streamlined processes, reduced cycle times, and increased compliance with policy.



Goal / Key Project Components

- Improve business and travel expense functions
- Update policies/standards, streamline processes, upgrade technology, enhance support



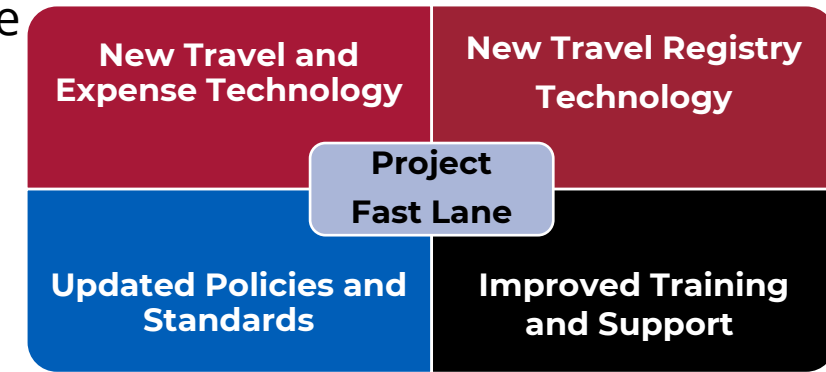
Campus Involvement

- Systemwide Project Team(s) and Governance
- Focus Groups
- Employee/departmental input and feedback



Important Milestones

- **December 2022** – Project Fast Lane official kickoff
- **April 2023** – Updated Travel Policy Board of Trustees vote
- **Summer 2023** – New Travel and Expense Process Pilot Rollout
- **Fall 2023** – New Travel and Expense Process Campus Rollouts



#11. 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
- UMass needs to act now because its window of opportunity is closing

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 under-served 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

Benefits to the Commonwealth

- Increase access for working adults and underserved populations
- Establish the Commonwealth as a leader in online teaching and learning
- Establish additional pathways to more affordable four-year degrees via the MassTransfer program
- Increase the Commonwealth's capacity for workforce upskilling and retraining with in-demand skills and rapid response to employer workforce shortages
- Defend against out-of-state providers recruiting students away from in-state colleges and universities already under duress from demographic shifts
- Ensure the sustainability of UMass, the Commonwealth's largest postsecondary educator, third-largest research enterprise and third-largest employer

Activity to Date

Background:

- Transfer of control effective September 2021 (FY22)
- Separate 501(c)3 in California with a separate independent Board
- For the first time in FY22, included in the University's Annual Financial Report
- Proforma approved by the Board (April 2020) anticipated shortfalls in the 3-4 year ramp up period
- Self funded initiative - no upfront costs to the University or the Commonwealth

FY23 Update:

- Enrollment: focused on new student growth.
- Operations: staff and faculty headcounts are being managed consistent with enrollment projections; other savings anticipated including capital

Forecast:

- Embrace remote learning & work, expand access to meet student needs & capacity, expand workforce relevant credentials through employer partnerships, establish national & international reach

#12. Academic Quality



University of Massachusetts

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

A World-Class Public University

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

5

National Research Universities

The only nationally-ranked public universities in MA



#1

Public University in New England



A World-Class Education

UMass is recognized as a national leader in academic excellence.

#191

World's Best
Universities
(out of 1,799 institutions)



#26

▲ from #52 in 2010

Among Public
Universities in the
United States

University of
Massachusetts
Amherst

#38

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



UMass Graduates Earn Strong Starting Salaries

Graduates from every UMass campus make higher starting salaries than at least 56% of all other MA 4-year 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 Sciences, Engineering, Medicine, and Inventors, and the American Academy of Arts and Sciences, an American Book Award winner and Fulbright, Guggenheim, MacArthur and Mellon fellows.
- Twelve UMass Amherst researchers were named to the 2022 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 fifteen faculty members teaching or conducting research on four continents over the last five years. In addition, 3 faculty members were awarded highly prestigious Fulbright Specialist awards over that same period.
- Over the past five years, UMass Amherst hosted thirty Fulbright Scholars from around the world, including one of only two inaugural highly-prestigious Fulbright-Nehru Visiting Chairs in Indian Studies.

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 Chan Medical School professor Guangping Gao has been named to Nature Biotechnology's "Top 20 Translational Scientists" in 2019 and 2020
- 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.
- UMass Dartmouth associate professor Hua Fang was awarded the University's first-ever NIH RO1 grant to study dietary patterns using big data.

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 Professors Deepak Ganesan is Principal Investigator on a new NIH grant that established the Massachusetts AI and Technology Center in collaboration with Harvard Medical School and Brigham and Women's Hospital. The center provides connected care in aging and Alzheimer's Disease
- UMass Boston Associate Professor of Applied Linguistics, Avary Carhill-Poza and Professor of Applied Linguistics Panayota Gounari have been awarded a prestigious grant from the U.S. Department of Education's National Professional Development (NPD) program to partner with school districts to create equitable learning environments for English learners.
- 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 Dartmouth assistant professor Raina Lamade was appointed as one of eight psychologists to serve on the American Psychological Association's (APA's) Amicus Curiae Expert Panel.

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 Amherst professor Daniela Calzetti was elected to the National Academy of Sciences in 2020 for her contributions to the field of astronomy.
- UMass Boston professor Paul Kirshen and his colleagues in the Stone Living Lab were recognized as finalists for the 2021 Earthshot Prize and are developing monitoring systems, research projects, and prototypes to test nature-based approaches for building coastal resilience in urban areas like Boston Harbor.
- UMass Dartmouth professor Tim Walker’s research on the maritime aspect of the Underground Railroad was featured by the Library of Congress during Black History Month in 2022.
- UMass Dartmouth Professor Kevin Stokesbury and Professor Pingguo He collaborated with offshore wind companies Vineyard Wind and Mayflower Wind to document changes in the marine habitat associated with offshore wind farm development.

Faculty Excellence Continued

- UMass Boston Assistant Professor Lorena Estrada-Martinez (School for the Environment), Professor and Director of the Institute for Asian American Studies Paul Watanabe (College of Liberal Arts), and Ph.D. candidate Katsyris Rivera-Kientz (College of Liberal Arts) are exploring Race and Opinions on Climate Change of Boston Area Residents
- 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.
- UMass Amherst assistant professor Isabella Weber was named one of Germany's "100 Women of the Year" by FOCUS magazine, one of Germany's largest.

Faculty Excellence Continued

- UMass Boston Professor of Physics, Christopher Fuchs, has received \$2.85 million from the John Templeton Foundation and NSF over three years to support his work in the foundations of quantum physics.
- UMass Dartmouth's Cybersecurity Center was recognized with a certificate of designation from the National Center of Academic Excellence in Cybersecurity (NCAE-C) by the NSA, along with a \$3.5M award for establishment of CyberCorps Scholarship for Service.
- A new interdisciplinary program at UMass Boston is being led by Associate Professors of Special Education, Kristin Murphy and Chris Denning and Associate Professors of Counseling & School Psychology, Amy Cook and Laura Hayden, in the College of Education and Human Development to prepare future educators for social-emotional learning while addressing personnel shortages in education.
- UMass Dartmouth assistant professor Banafsheh Seyed-Aghazadeh was the recipient of an NSF CAREER Award and the Office of Naval Research Young Investigator Program Award.
- UMass Law Associate Professor Jeremiah Ho's received the 2022 Dukeminier Award for top prize in the field of LGBTQ legal scholarship.

Faculty Excellence: Endowed Professors

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

194

Endowed chairs and professorships across the university

\$256 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.

Public Higher Education Endowment 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 will continue to bolster additional fundraising for the university in support of the university's faculty.

#13. Campus Data



University of Massachusetts

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

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.



FY24-28 Forecast: By the Numbers

Revenue & Expenses:

<u>FY23 Budget:</u>	<u>AAGR:</u>	<u>Rev</u>	<u>Exp</u>
Total: \$1.523B	FY24-28: 4.2%	3.9%	
	FY21-23: 5.2%	4.6%	
	FY18-20: 3.0%	4.3%	



Tuition Annual Increases:

- Undergraduate & Graduate:
 - In-State: 2.5%
 - Out-of-State: 3.0%

Auxiliary Annual Increases:

- Housing: 3.0%
- Dining: 3.0%

Operating Margin:

<u>FY23 Budget:</u>	<u>Average:</u>
0.50%	FY24-28: 2.0%
	FY21-23: 2.2%
	FY18-20: 1.8%



100% campus owned occupancy

- 13,500 beds

Enrollment:

<u>FY23 Actual:</u>	<u>AAGR:</u>
FTEs: 30,188	FY24-28: 0.1%
	FY21-23: 0.4%
	FY18-20: 1.9%



Deferred Maintenance:

\$800 million FY22-26 capital plan
\$1.5 billion deferred maintenance

- (25% of replacement value FY21 (24% University))

Employees:

<u>FY23 Budget:</u>	<u>AAGR:</u>
Total: 6,377	FY24-28: 0.7%
	FY21-23: 1.0%
	FY18-20: 6.0%

Capital:

- \$310 million new borrowing planned
- \$250 million local funding



Amherst: Revenue & Expenses Trend

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY24-28	
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Avg. Annual
Gross Tuition & Fees	541,665	562,859	586,915	596,559	616,480	637,712	658,523	673,228	697,390	725,024	738,836	758,193	12.6%	3.5%
Tuition Discounts	(150,824)	(151,628)	(160,429)	(170,555)	(178,509)	(180,490)	(179,940)	(190,922)	(200,418)	(208,586)	(211,081)	(216,233)	13.3%	3.7%
Discount Rate	27.8%	26.9%	27.3%	28.6%	29.0%	28.3%	27.3%	28.4%	28.7%	28.8%	28.6%	28.5%	0.6%	0.2%
Net Tuition & Fees	390,841	411,231	426,486	426,004	437,970	457,221	478,583	482,306	496,972	516,438	527,755	541,960	12.4%	3.5%
Grants	153,007	163,645	151,629	170,184	198,406	195,940	212,679	218,994	225,999	233,214	240,645	247,799	13.2%	4.9%
Sales & Service, Educational	9,321	10,795	10,653	9,153	9,077	11,452	12,683	13,000	13,326	13,659	14,000	14,350	10.4%	4.7%
Auxiliary Enterprises	268,041	279,545	243,865	104,578	292,531	311,209	324,346	327,137	336,565	346,171	356,054	366,221	11.9%	3.3%
Other Operating	16,768	16,439	19,644	15,998	15,110	15,174	14,957	17,345	17,710	18,081	18,461	18,850	8.7%	4.5%
State Appropriations	360,161	371,781	386,057	404,852	421,771	448,412	483,225	488,553	499,161	520,851	542,317	565,110	15.7%	4.8%
Other NonOperating	78,504	87,616	90,577	111,557	121,014	83,560	88,797	91,003	98,432	102,786	107,101	111,710	22.8%	6.0%
Total Revenues	1,276,643	1,341,052	1,328,911	1,242,326	1,495,879	1,522,969	1,615,270	1,638,338	1,688,165	1,751,200	1,806,333	1,866,000	13.9%	4.2%
% Growth	5.0%	5.0%	-0.9%	-6.5%	20.4%	1.8%	8.0%	7.6%	3.0%	3.7%	3.1%	3.3%		
Expenses														
Salaries & Fringe	744,102	780,545	802,927	831,627	840,857	904,020	903,230	928,379	963,627	996,004	1,026,183	1,056,872	13.8%	3.2%
Non-Personnel	326,076	341,923	337,418	241,417	349,461	399,055	444,379	468,038	471,572	491,445	515,111	543,310	16.1%	6.5%
Scholarships & Fellowships	18,216	16,581	27,613	24,416	43,385	23,269	20,000	21,483	22,613	23,540	23,783	24,366	13.4%	1.0%
Depreciation	109,965	117,086	121,494	128,454	136,903	141,605	137,948	143,292	149,750	152,451	151,664	148,749	3.8%	1.0%
Interest	43,131	40,706	39,653	39,409	38,983	42,384	41,565	41,545	47,442	53,219	54,334	54,693	31.6%	5.4%
Total Expenses	1,241,490	1,296,841	1,329,105	1,265,323	1,409,590	1,510,333	1,547,122	1,602,737	1,655,004	1,716,659	1,771,075	1,827,990	14.1%	3.9%
% Growth	5.8%	4.5%	2.5%	-4.8%	11.4%	7.1%	9.8%	6.1%	3.3%	3.7%	3.2%	3.2%		
Operating Margin														
UMass OM Calc Revenues	1,274,604	1,333,206	1,331,644	1,253,428	1,514,815	1,517,319	1,615,270	1,638,338	1,688,165	1,751,200	1,806,333	1,866,000		
Total Expenses	1,241,490	1,296,841	1,329,105	1,265,323	1,409,590	1,510,333	1,547,122	1,602,737	1,655,004	1,716,659	1,771,075	1,827,990		
Surplus / (Deficit)	33,114	36,365	2,539	(11,895)	105,225	6,985	68,148	35,601	33,161	34,541	35,258	38,010		
UMass OM Calc	2.6%	2.7%	0.2%	-0.9%	6.9%	0.5%	4.2%	2.2%	2.0%	2.0%	2.0%	2.0%		

Amherst: Enrollment Trend

<u>AAGR:</u>	<u>Total:</u>	<u>Undergraduate:</u>	<u>Graduate:</u>	<u>Continuing Ed:</u>
FY24-28:	0.1	0.1	0.0	0.0
FY21-23:	0.4	0.1	1.0	3.4
FY18-20:	1.9	2.3	0.4	0.7

Students (FTEs)	Actual					Budget Actual		Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Undergraduate	22,644	22,945	23,681	23,429	23,292	23,712	23,722	23,416	23,620	23,977	23,889	23,889
% Change		1.3%	3.2%	-1.1%	-0.6%	1.8%	1.8%	-1.3%	0.9%	1.5%	-0.4%	0.0%
Graduate	3,708	3,772	3,735	3,643	3,735	3,801	3,840	3,840	3,840	3,840	3,840	3,840
% Change		1.7%	-1.0%	-2.5%	2.5%	1.8%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Continuing Ed	2,360	2,334	2,392	2,621	2,778	2,777	2,626	2,626	2,626	2,626	2,626	2,626
% Change		-1.1%	2.5%	9.6%	6.0%	-0.0%	-5.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	28,712	29,051	29,808	29,693	29,804	30,290	30,188	29,882	30,086	30,443	30,355	30,355
% Change		1.2%	2.6%	-0.4%	0.4%	1.6%	1.3%	-1.0%	0.7%	1.2%	-0.3%	0.0%

Source: Actuals from student profile.

Amherst: Enrollment by Residency

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
In State	19,828	20,015	20,738	20,845	20,486	20,981	20,115	19,684	19,707	19,992	20,075	20,085
% Change		0.9%	3.6%	0.5%	-1.7%	2.4%	-1.8%	-2.1%	0.1%	1.4%	0.4%	0.0%
Out of State	5,958	5,824	5,739	5,774	6,049	6,044	6,435	6,560	6,741	6,838	6,712	6,702
% Change		-2.2%	-1.5%	0.6%	4.8%	-0.1%	6.4%	1.9%	2.8%	1.4%	-1.8%	-0.1%
International	2,926	3,212	3,332	3,074	3,270	3,265	3,638	3,638	3,638	3,613	3,568	3,568
% Change		9.8%	3.7%	-7.7%	6.4%	-0.1%	11.3%	0.0%	0.0%	-0.7%	-1.2%	0.0%
Total	28,712	29,051	29,808	29,693	29,804	30,290	30,188	29,882	30,086	30,443	30,355	30,355
% Change		1.2%	2.6%	-0.4%	0.4%	1.6%	1.3%	-1.0%	0.7%	1.2%	-0.3%	0.0%

Source: Actuals from student profile.

Amherst: Enrollment by New v Continuing

<i>Undergraduate</i> Enrollment (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
New	6,263	6,669	7,284	6,419	6,361	6,850	6,993	6,725	6,725	6,725	6,725	6,725
First-time Freshmen	5,119	5,582	6,196	6,343	5,179	5,700	5,991	5,725	5,725	5,725	5,725	5,725
Transfer	1,144	1,087	1,088	1,076	1,182	1,150	1,002	1,000	1,000	1,000	1,000	1,000
<i>% Change</i>	<i>-0.3%</i>	<i>6.5%</i>	<i>9.2%</i>	<i>-11.9%</i>	<i>-0.9%</i>	<i>7.7%</i>	<i>9.9%</i>	<i>-3.8%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>
Continuing	16,380	16,276	16,396	17,010	16,930	16,862	16,729	16,691	16,895	17,252	17,164	17,164
<i>% Change</i>	<i>0.5%</i>	<i>-0.6%</i>	<i>0.7%</i>	<i>3.7%</i>	<i>-0.5%</i>	<i>-0.4%</i>	<i>-1.2%</i>	<i>-0.2%</i>	<i>1.2%</i>	<i>2.1%</i>	<i>-0.5%</i>	<i>0.0%</i>
Undergraduate Total	22,643	22,945	23,680	23,429	23,291	23,712	23,722	23,416	23,620	23,977	23,889	23,889
<i>% Change</i>	<i>0.2%</i>	<i>1.3%</i>	<i>3.2%</i>	<i>-1.1%</i>	<i>-0.6%</i>	<i>1.8%</i>	<i>1.8%</i>	<i>-1.3%</i>	<i>0.9%</i>	<i>1.5%</i>	<i>-0.4%</i>	<i>0.0%</i>

Source: Actuals from student profile.

Amherst: Online Only

Career

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Undergraduate	23	27	27	20	75	26	61	61	61	61	61	61
% Change		19.4%	-0.7%	-25.7%	269.7%	-65.3%	-18.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Graduate	16	18	14	19	61	20	45	45	45	45	45	45
% Change		12.5%	-21.6%	37.8%	212.0%	-67.0%	-25.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Continuing Ed	1,699	1,631	1,617	1,936	2,054	2,102	1,899	1,899	1,899	1,899	1,899	1,899
% Change		-4.0%	-0.9%	19.8%	6.1%	2.3%	-7.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	1,738	1,676	1,658	1,976	2,190	2,148	2,005	2,005	2,005	2,005	2,005	2,005
% Change		-3.6%	-1.1%	19.2%	10.8%	-1.9%	-8.4%	0.0%	0.0%	0.0%	0.0%	0.0%

Residency

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
In State	830	793	803	1,004	1,120	1,089	1,014	1,014	1,014	1,014	1,014	1,014
% Change		-4.4%	1.3%	25.0%	11.5%	-2.7%	-9.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Out of State	851	811	775	822	971	963	895	895	895	895	895	895
% Change		-4.7%	-4.4%	6.0%	18.1%	-0.8%	-7.8%	0.0%	0.0%	0.0%	0.0%	0.0%
International	57	72	79	150	99	96	96	96	96	96	96	96
% Change		26.0%	10.5%	88.6%	-33.6%	-3.3%	-3.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	1,738	1,676	1,658	1,976	2,190	2,148	2,005	2,005	2,005	2,005	2,005	2,005
% Change		-3.6%	-1.1%	19.2%	10.8%	-1.9%	-8.4%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Actuals from student profile.

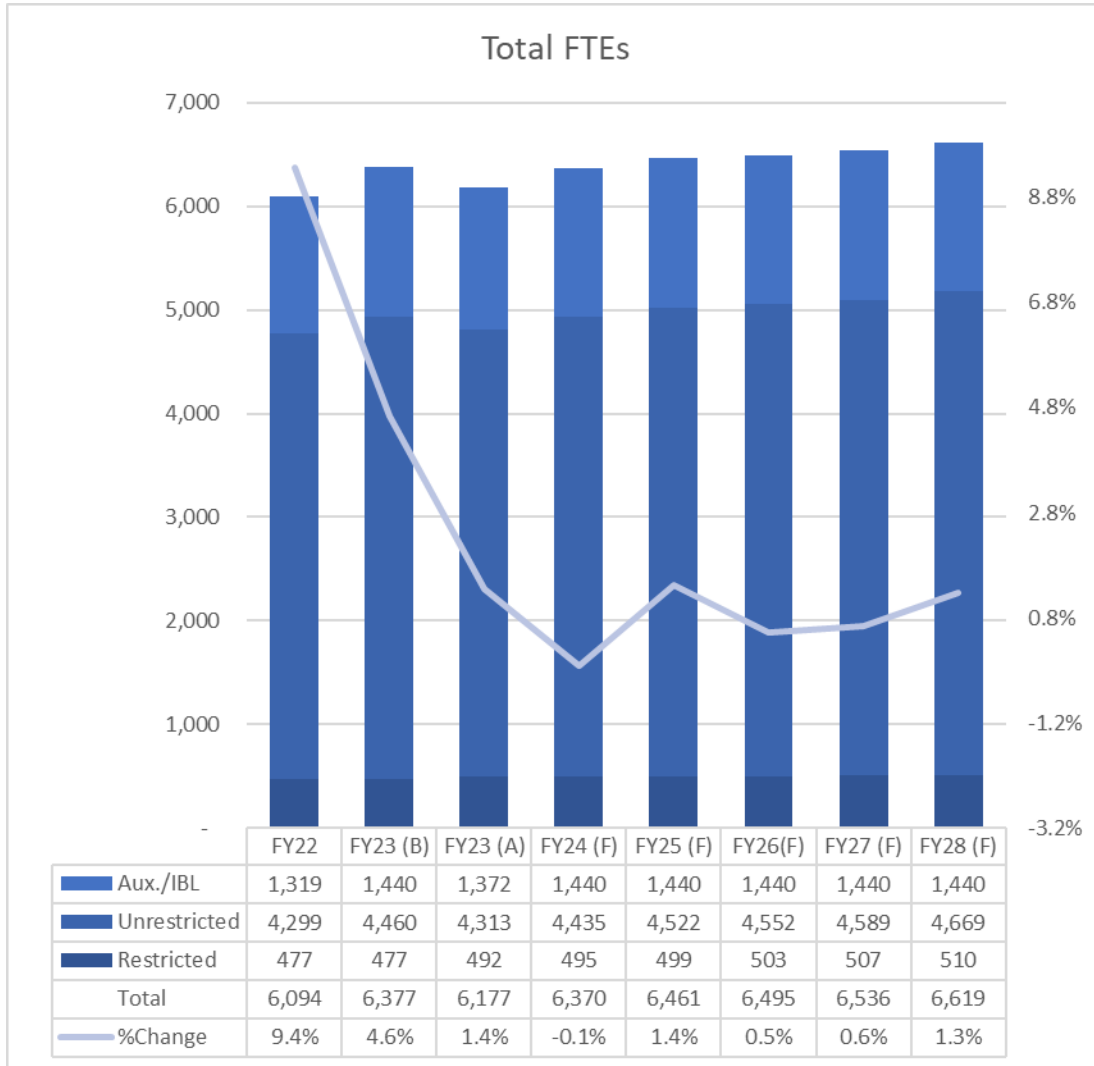
Amherst: Staffing

Employee FTEs	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Restricted												
Faculty	49	43	42	41	45	45	47	47	48	49	50	50
Staff	374	361	382	432	432	432	445	448	451	454	457	460
Total Restricted	423	404	425	474	477	477	492	495	499	503	507	510
# Change		(19)	21	49	3	0	15	18	4	4	4	3
% Change		-4%	5%	11%	1%	0%	3%	4%	1%	1%	1%	1%
Unrestricted General University Ops												
Faculty	1,508	1,569	1,620	1,605	1,604	1,619	1,612	1,641	1,671	1,687	1,695	1,700
Staff	2,676	2,712	2,762	2,678	2,695	2,841	2,701	2,794	2,851	2,865	2,894	2,969
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	4,299	4,460	4,313	4,435	4,522	4,552	4,589	4,669
# Change		97	102	(99)	16	161	14	(25)	87	30	37	80
% Change		2%	2%	-2%	0%	4%	0%	-1%	2%	1%	1%	2%
Unrestricted Aux./Independent Business												
Faculty	-	-	-	-	-	-	-	-	-	-	-	-
Staff	1,023	1,228	1,516	816	1,319	1,440	1,372	1,440	1,440	1,440	1,440	1,440
Total Aux./Independent Business	1,023	1,228	1,516	816	1,319	1,440	1,372	1,440	1,440	1,440	1,440	1,440
# Change		205	288	(700)	503	121	53	-	-	-	-	-
% Change		20%	23%	-46%	62%	9%	4%	0%	0%	0%	0%	0%
Total Faculty & Staff	5,629	5,912	6,323	5,572	6,094	6,377	6,177	6,370	6,461	6,495	6,536	6,619
# Change		283	411	(750)	522	283	83	(7)	91	34	41	83
% Change		5%	7%	-12%	9%	5%	1%	0%	1%	1%	1%	1%

Note: Historical actuals are as of 9/30; FY23 staffing includes return to normal operations specifically in housing and dining and filling of some vacant positions.

Amherst: Staffing

Faculty & staff of 6,177 grows on average 1% over the forecast period.



Auxiliary / Independent

Business Lines: staff including housing & dining

Unrestricted: faculty & staff that support general university operations

Restricted: faculty & staff funded by grant & endowed funds

FTEs:	1,372
% of Total FTEs:	22%
Faculty % / Staff %:	0% / 100%
Forecast AAGR:	0.0%

FTEs:	4,313
% of Total FTEs:	70%
Faculty % / Staff %:	37% / 63%
Forecast AAGR:	0.9%

FTEs:	492
% of Total FTEs:	8%
Faculty % / Staff %:	10% / 90%
Forecast AAGR:	1.4%

Amherst: Staffing Ratios

	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
<i>Student - Faculty</i>												
Student (FTE)	28,712	29,051	29,808	29,693	29,804	30,290	30,188	29,882	30,086	30,443	30,355	30,355
Faculty (FTE)	1,556	1,611	1,663	1,647	1,649	1,664	1,659	1,688	1,719	1,736	1,745	1,750
Student-Faculty Ratio	18.4	18.0	17.9	18.0	18.1	18.2	18.2	17.7	17.5	17.5	17.4	17.3
<i>Staff - Faculty (All)</i>												
Staff (FTE)	4,072	4,301	4,660	3,926	4,445	4,713	4,518	4,664	4,724	4,741	4,773	4,851
Faculty (FTE)	1,556	1,611	1,663	1,647	1,649	1,664	1,659	1,688	1,719	1,736	1,745	1,750
Staff-Faculty Ratio	2.6	2.7	2.8	2.4	2.7	2.8	2.7	2.8	2.7	2.7	2.7	2.8
<i>Staff - Faculty (E&G)</i>												
Staff (FTE)	2,676	2,712	2,762	2,678	2,695	2,841	2,701	2,794	2,851	2,865	2,894	2,969
Faculty (FTE)	1,508	1,569	1,620	1,605	1,604	1,619	1,612	1,641	1,671	1,687	1,695	1,700
Staff-Faculty Ratio (E&G)	1.8	1.7	1.7	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7

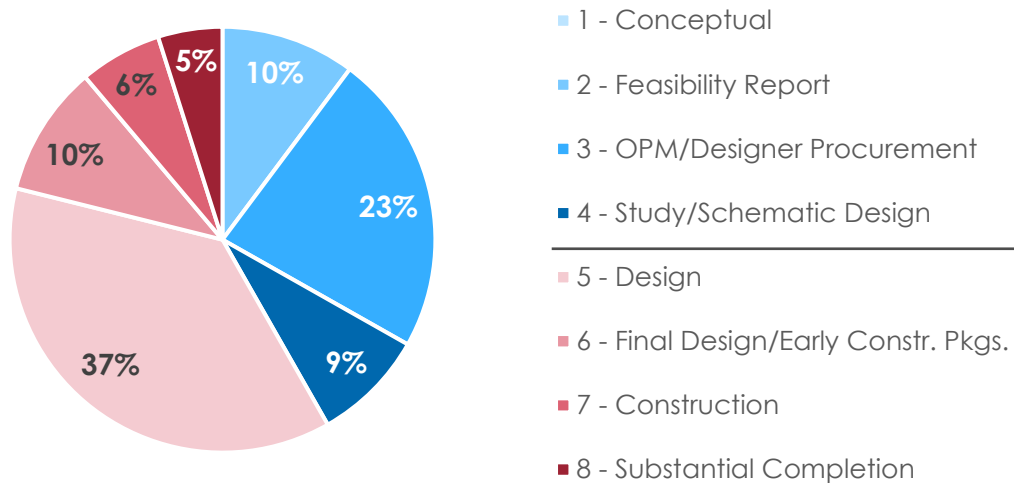
Amherst: Key Ratios

Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Operating Margin (%)	2.6%	2.7%	0.2%	-0.9%	6.9%	0.5%	4.2%	2.2%	2.0%	2.0%	2.0%	2.0%
Operating Margin (\$)	33,114	36,365	2,539	(11,895)	105,226	6,985	68,148	35,601	33,161	34,541	35,258	38,010
Operating Cash Flow Margin (%)	14.8%	14.6%	12.9%	12.2%	19.7%	13.7%	16.2%	14.4%	14.1%	14.1%	13.7%	13.2%
Operating Cash Flow Margin (\$)	186,268	192,282	168,787	148,424	291,265	207,048	260,379	235,023	236,112	244,694	244,253	242,756
Debt Service Burden (%)	6.8%	6.5%	6.4%	3.7%	5.4%	5.5%	5.5%	5.3%	5.2%	5.4%	5.4%	5.3%
Debt Service Coverage (x)	2.2	2.3	2.0	3.2	3.8	2.5	3.1	2.8	2.7	2.6	2.6	2.5
Financial Leverage (x)	0.71	0.71	0.65	0.80	0.92	0.66	0.83	0.86	0.79	0.80	0.82	0.87
Total Debt (\$ in thousands)	1,044,216	1,089,240	1,203,126	1,222,295	1,151,358	1,203,126	1,320,088	1,303,697	1,439,256	1,436,275	1,429,649	1,369,339
Total Cash & Investments to Op Expenses (x)	0.61	0.60	0.60	0.79	0.78	0.53	0.72	0.71	0.69	0.68	0.67	0.66
Enrollment	28,712	29,051	29,808	29,693	29,804	30,290	30,188	29,882	30,086	30,443	30,355	30,355
Enrollment (% Change)	1.3%	1.2%	2.6%	-0.4%	0.4%	2.0%	1.7%	-1.0%	0.7%	1.2%	-0.3%	0.0%

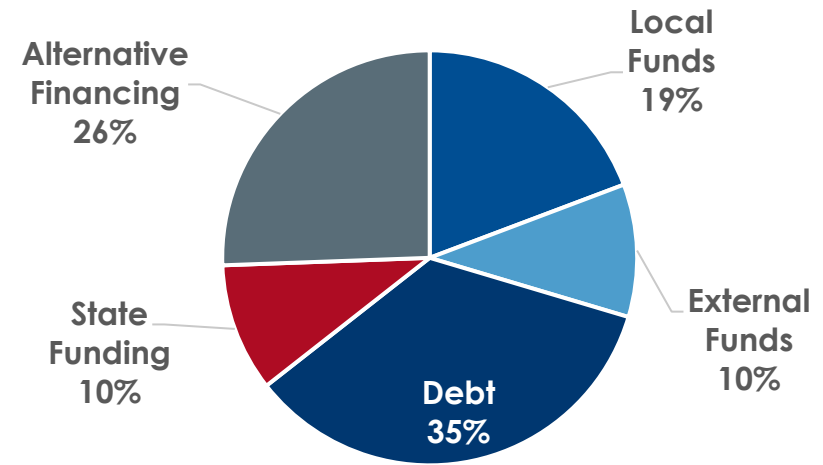
Amherst: 39 Projects; \$859M; 45% of Capital Plan

11% of Projects in Construction or Substantial Completion

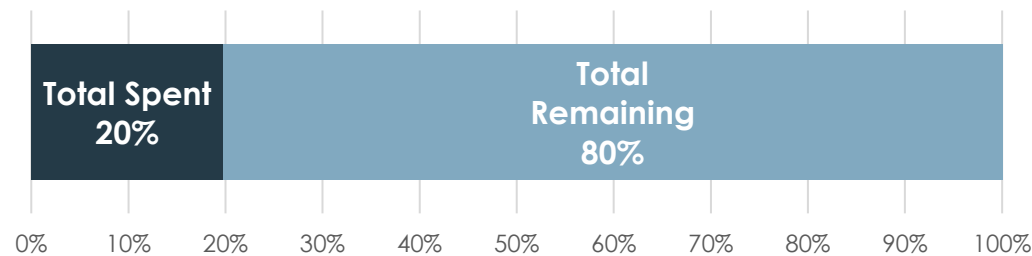
Projects by Phase



Funding Sources



Project Spending



Amherst Projects: Board

Traditional Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
PVTA Bus Garage Expansion	11,000,000	2 - Feasibility Report	Authorized
Thompson Deferred Maintenance	2,250,000	2 - Feasibility Report	Authorized
Engineering Building	100,000,000	3 - Owner's Project Manager/Designer Procurement	Authorized
School of Public Health and Health Sciences Renovations	30,000,000	3 - Owner's Project Manager/Designer Procurement	Authorized
Computer and Information Sciences Building	130,000,000	5 - Design	Approved
Goodell Renovation	50,000,000	5 - Design	Approved
Office/Lab/Academic Renovations	52,500,000	6 - Final Design / Early Construction Packages	Approved
Energy Improvements	16,700,000	7 - Construction	Approved
Replace Oil Filled Transformers	2,000,000	7 - Construction	Approved
Fine Arts Center renovations	12,573,376	8 - Substantial Completion	Approved
Goessmann, SPHHS Renovations	15,100,000	8 - Substantial Completion	Approved
Total	422,123,376		

Alternative Finance & Delivery Projects	
Project	Adjusted Cost (\$)
Thermal Energy Tank	9,750,000
University Village Apartments	73,800,000
Housing Expansion	210,000,000
Total	293,550,000

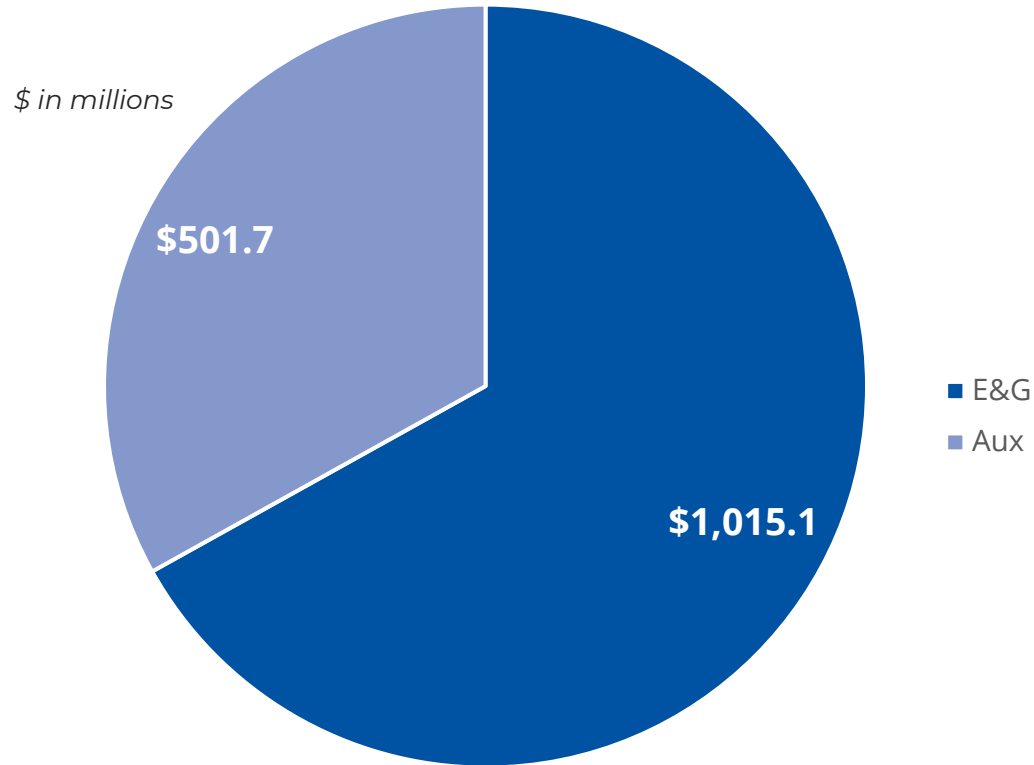
Amherst Projects: President

President Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
Center for Early Education and Care	9,500,000	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
Gloucester Marine Station Improvements	3,000,000	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
Baker Deferred Maintenance	2,000,000	4 - Study / Schematic Design	Authorized
Coolidge Life Safety Upgrades	8,000,000	4 - Study / Schematic Design	Authorized
JQA Life Safety Upgrades & Renovation	9,000,000	4 - Study / Schematic Design	Authorized
Lederle Lab Renovation	3,000,000	4 - Study / Schematic Design	Authorized
Utilities & Infrastructure	9,000,000	4 - Study / Schematic Design	Authorized
Utility Storage Tanks	2,500,000	4 - Study / Schematic Design	Authorized
Washington & Kennedy Resident Halls Life Safety Upgrades Phase	6,000,000	4 - Study / Schematic Design	Authorized
Water Engineering Technology Laboratories	6,000,000	4 - Study / Schematic Design	Authorized
Whitmore 3rd Floor Renovations	3,000,000	4 - Study / Schematic Design	Authorized
Lederle Chemistry Teaching Laboratories	9,000,000	5 - Design	Approved
Memorial Hall DM	2,000,000	5 - Design	Approved
Pavilion	7,000,000	5 - Design	Approved
Roof Replacements	7,000,000	5 - Design	Approved
Washington and Kennedy Residence Halls Life Safety Upgrades	5,000,000	5 - Design	Approved
Housing Deferred Maintenance	3,800,000	6 - Final Design / Early Construction Packages	Approved
Brett Residence Hall DM	4,000,000	7 - Construction	Approved
Sidewalks/Roads/Landscape	5,000,000	7 - Construction	Approved
Wareham Cranberry Station	7,750,000	7 - Construction	Approved
Total	143,550,000		

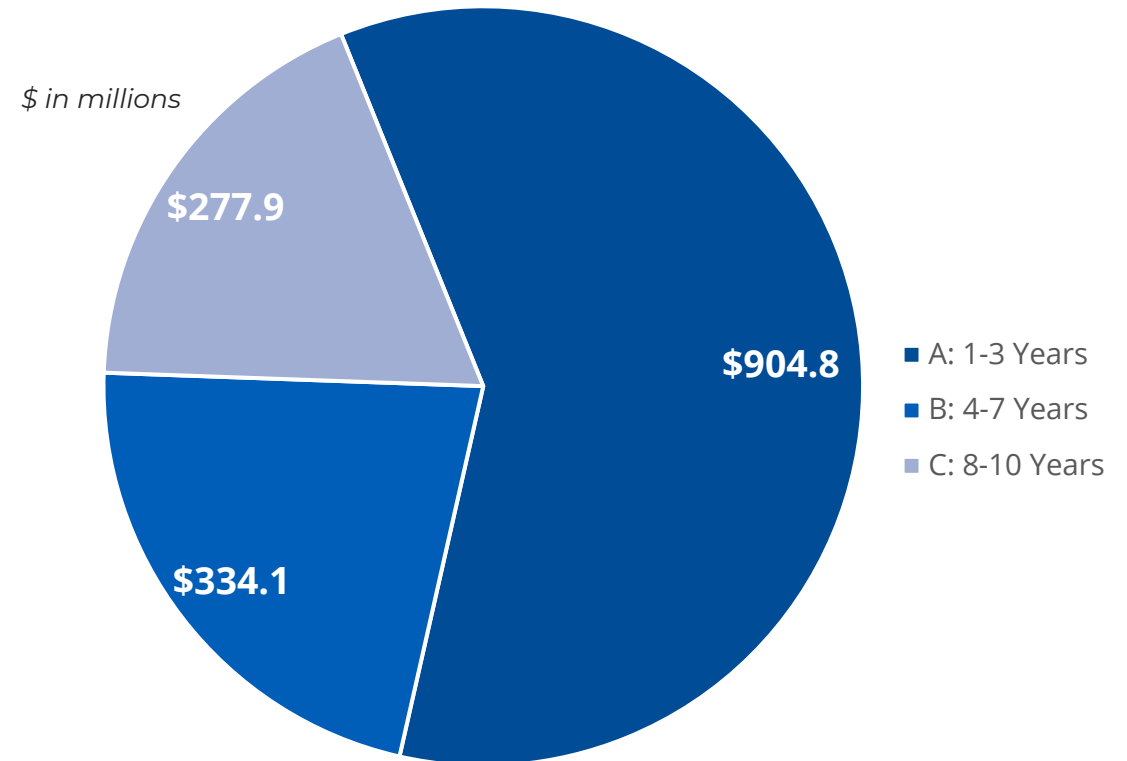
Amherst: Deferred Maintenance

\$1.5 Billion Backlog Coming Due in the Next 10 Years

\$1.5B: E&G vs. AUX



\$1.5B: By Timeframe



Amherst: Deferred Maintenance

\$1.5 Billion Backlog Coming Due in the Next 10 Years

By Package

Building Package	Project Cost (\$ millions)
Building Systems	504.2
Space Improvement	433.8
Safety/Code	271.3
Building Envelope	247.1
Infrastructure	60.5
Total	1,516.9

By System

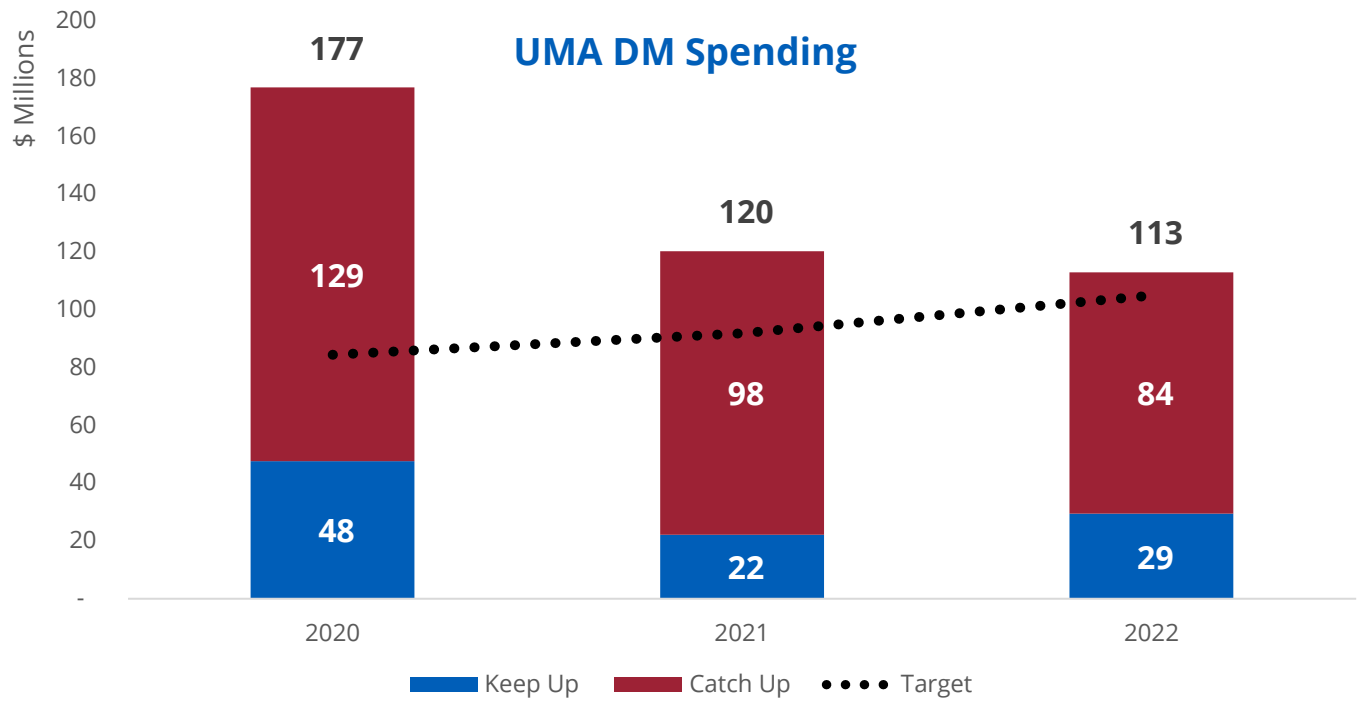
Building System	Project Cost (\$ millions)
Interior Shell	418.2
Safety/Code	266.1
Exterior Shell	244.0
HVAC	163.6
Plumbing	139.0
Electrical	95.2
Heating	57.4
Mechanical	40.7
Grounds	39.7
Cooling	38.5
Total	1,516.9

Top 10 Building Needs

Building	Project Cost (\$ millions)
DuBois Library	103.5
Bartlett Hall	48.9
Tobin Hall	43.6
Lederle Graduate Research Center	43.3
Morrill Science Center Section III	38.4
Fine Arts Center	37.7
Lincoln Campus Center	35.6
Lincoln Apartments Units 1-11	33.5
Lederle Graduate Research Center Addition	33.4
Campus Grounds/Infrastructure	30.3
Total	448.2

Amherst: Deferred Maintenance Dashboard (v1.0)- Annual Investment

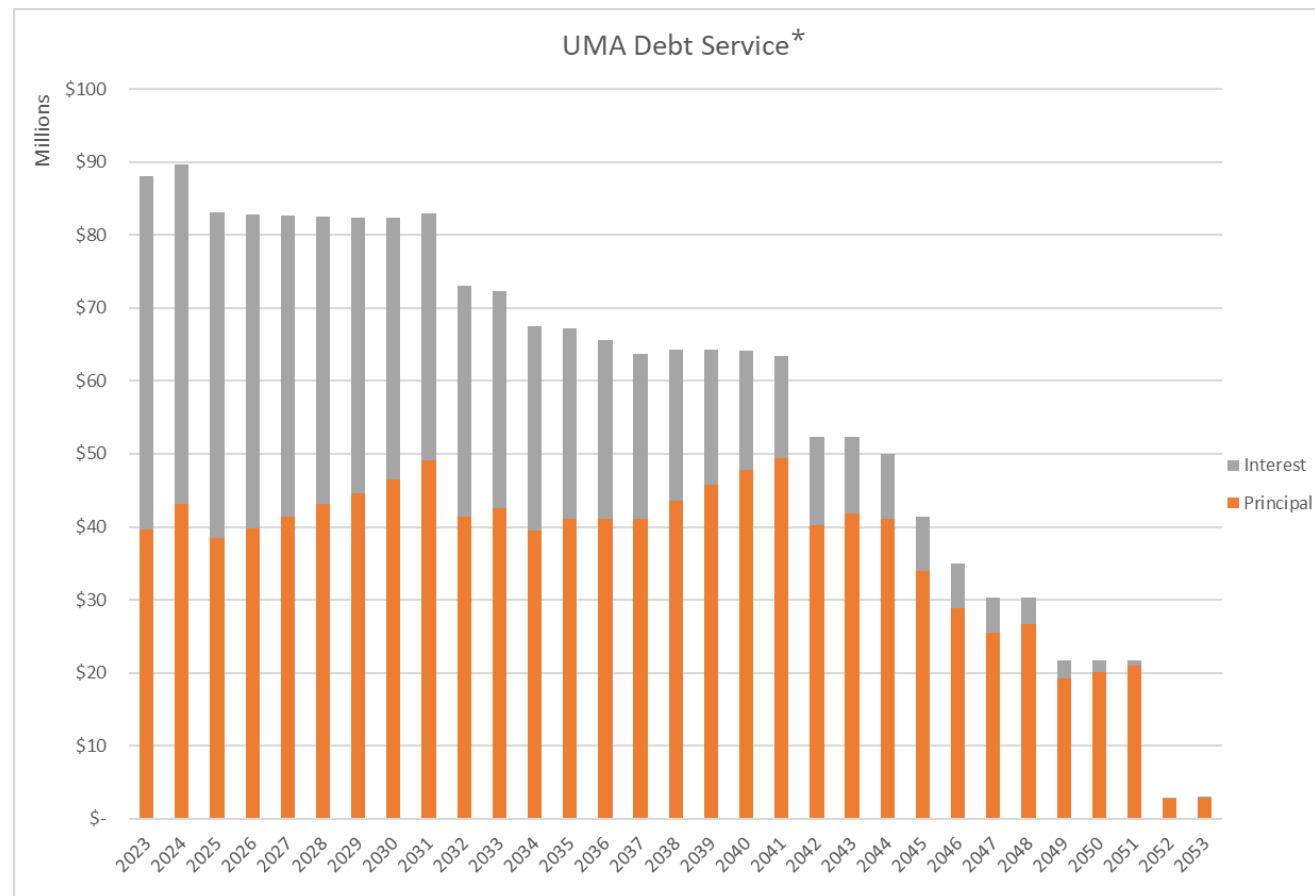
<u>FY22 Keep Up</u> \$29.4 M	<u>FY22 Keep Up</u> \$105.0 M	<u>FY22 % Target</u> 28.0%
<u>FY22 Catch Up</u> \$83.6 M	<u>FY22 Catch Up</u> TBD	<u>FY22 % Target</u> N/A



Amherst: Deferred Maintenance – Annual Investment

<i>\$ in thousands</i>	FY24	FY25	FY26	FY27	FY28
Keep Up					
Target	114,247	117,543	121,052	123,561	127,237
Depreciation	143,292	149,750	152,451	151,664	148,749
- Principal Payment	43,195	38,430	39,770	41,415	43,100
= Available Keep Up	100,097	111,320	112,681	110,249	105,649
Forecast Spend	34,000	35,000	36,000	37,000	38,000
% of Target	30%	30%	30%	30%	30%
Catch Up					
Target (15 yrs)	101,124	101,124	101,124	101,124	101,124
Forecast Spend	110,000	110,000	110,000	110,000	110,000
% of Target	109%	109%	109%	109%	109%
Debt Service Burden	5.3%	5.2%	5.4%	5.4%	5.3%

- **Keep-Up:** targets established by Gordian meant to ensure investments sufficient to prevent backlog from growing
- **Depreciation:** (non-cash expenses) budgeted as a proxy to cover debt service; additional amount beyond debt payment available for keep up
- **Catch Up:** estimated 15 years to address backlog through major capital projects and one-time sources like State grants and borrowing



Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Debt Service Burden (%)	6.8%	6.5%	6.4%	3.7%	5.4%	5.5%	5.5%	5.3%	5.2%	5.4%	5.4%	5.3%
Debt Service Coverage (x)	2.2	2.3	2.0	3.2	3.8	2.5	3.1	2.8	2.7	2.6	2.6	2.5
Financial Leverage (x)	0.71	0.71	0.65	0.80	0.92	0.66	0.83	0.86	0.79	0.80	0.82	0.87
Total Debt (\$ in thousands)	1,044,216	1,089,240	1,203,126	1,222,295	1,151,358	1,203,126	1,320,088	1,303,697	1,439,256	1,436,275	1,429,649	1,369,339

Boston

About UMass Boston

- UMass Boston is a public research university with a teaching soul. UMass Boston brings diverse people and ideas together to seek knowledge and improve lives, here in Boston, across the nation, and around the world. We are dedicated to promoting the practice of democratic citizenship; preparing a diverse, talented workforce; informing equitable public policy; and strengthening the social and economic resilience of our city.
- Our rigorous academic environment supports the intellectual growth and success of students from diverse socioeconomic, racial, ethnic, linguistic, and cultural backgrounds. Our student body, drawn from and embodying the world's immense cultural wealth, will be the primary source of Boston's future talent. Our students' future is Boston's future. Equity and an ethic of care are core values that drive institutional policies, practices, and culture. And we thrive as a community of people who learn from each other and from life experiences different from our own.
- UMass Boston's community-engaged scholarship, service, and strategic collaborations promote the interests of our partner communities. Our academic programs reflect alignment between racial and environmental justice and the principles of sustainable humanity that guide university planning and operations.



Boston FY24-28 Forecast: By the Numbers

Revenue & Expenses:

<u>FY23 Budget:</u>	<u>AAGR:</u>	<u>Rev</u>	<u>Exp</u>
Total: \$470.5M	FY24-28: 3.7%	3.3%	
	FY21-23: 2.0%	2.4%	
	FY18-20: 1.6%	1.1%	



Tuition Annual Increases:

- Undergraduate: 2.5% In state, 3.0% Out of state
- Graduate: 3.0%

Auxiliary Annual Increases:

- 100% P3 occupancy; 1,077 beds
- Dining: 2%
- Increased volume from enrollment & more staff on campus

Deferred Maintenance:

\$219 million FY22-26 capital plan

\$220 million deferred maintenance

- (15% of replacement value FY21 (24% University))



Capital:

- No new borrowing assumed
- Must continue to review timing of completion of key projects for FY24 budget:
 - Dorchester Bay City & SDQD – change in timing would impact new borrowing need, interest expense and investment earnings



Operating Margin:

<u>FY23 Budget:</u>	<u>Average:</u>
0.0%	FY24-28: 2.0%
	FY21-23: 2.2%
	FY18-20: 0.9%

Enrollment:

<u>FY23 Actual:</u>	<u>AAGR:</u>
FTEs: 12,876	FY24-28: 0.7%
	FY21-23: -0.9%
	FY18-20: 0.8%

Employees:

<u>FY23 Budget:</u>	<u>AAGR:</u>
Total: 1,892	FY24-28: 1.1%
	FY21-23: -1.3%
	FY18-20: -2.3%

Boston: Revenue & Expenses Trend

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY24-28	
	FY2018	FY2019	FY2020	FY2021	FY2022		FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Avg. Annual
Gross Tuition & Fees	243,760	245,734	252,603	256,240	244,867	258,097	259,773	269,175	277,904	285,235	292,550	299,220	11.2%	3.0%
Tuition Discounts	(57,790)	(64,836)	(69,973)	(74,079)	(76,828)	(78,360)	(84,832)	(81,709)	(83,352)	(85,043)	(86,746)	(88,276)	8.0%	2.4%
Discount Rate	23.7%	26.4%	27.7%	28.9%	31.4%	30.4%	32.7%	30.4%	30.0%	29.8%	29.7%	29.5%	-2.8%	-0.6%
Net Tuition & Fees	185,970	180,898	182,630	182,161	168,039	179,736	174,941	187,466	194,552	200,192	205,804	210,944	12.5%	3.3%
Grants	56,212	53,536	54,732	58,185	63,564	61,799	65,273	68,818	70,731	74,703	77,946	81,488	18.4%	5.7%
Sales & Service, Educational	4,072	4,312	1,744	1,262	1,927	1,652	1,927	1,927	1,927	1,927	1,927	1,927	0.0%	3.3%
Auxiliary Enterprises	5,199	12,315	10,381	3,230	13,568	12,756	14,199	14,704	14,991	15,259	15,544	15,830	7.7%	4.5%
Other Operating	1,758	2,218	3,138	2,586	2,677	2,586	2,586	2,586	2,586	2,586	2,586	2,586	0.0%	0.0%
State Appropriations	135,605	140,659	146,284	152,833	158,380	171,424	187,862	179,820	187,102	194,627	202,397	210,421	17.0%	4.2%
Other NonOperating	37,773	42,529	44,706	67,866	74,208	40,544	41,217	41,800	41,910	42,094	41,923	42,021	0.5%	0.7%
Total Revenues	426,589	436,467	443,615	468,123	482,363	470,496	488,005	497,122	513,800	531,388	548,127	565,218	13.7%	3.7%
% Growth	0.8%	2.3%	1.6%	5.5%	3.0%	-2.5%	1.2%	5.7%	3.4%	3.4%	3.1%	3.1%		
Expenses														
Salaries & Fringe	269,465	269,723	269,734	270,486	274,008	289,333	291,200	298,503	306,981	321,282	334,316	347,150	16.3%	3.7%
Non-Personnel	98,972	98,428	96,680	90,822	118,316	108,307	117,723	116,137	119,926	122,758	125,574	130,102	12.0%	3.8%
Scholarships and Fellowships	17,180	17,983	20,771	30,189	35,893	19,494	18,128	17,441	17,441	17,441	17,441	17,441	0.0%	-2.1%
Depreciation	24,433	28,010	32,460	32,765	34,280	35,435	35,882	40,110	43,860	45,056	46,118	46,016	-12.6%	5.5%
Interest	14,152	16,823	19,312	18,730	19,209	17,927	18,475	15,113	15,315	14,224	13,715	13,204	14.7%	-5.8%
Total Expenses	424,202	430,967	438,957	442,992	481,706	470,497	481,408	487,304	503,524	520,761	537,164	553,913	13.7%	3.3%
% Growth	-0.1%	1.6%	1.9%	0.9%	8.7%	-2.3%	-0.1%	3.6%	3.3%	3.4%	3.1%	3.1%		
Operating Margin														
UMass OM Calc Revenues	426,589	434,863	444,014	470,026	486,208	470,496	488,005	497,122	513,800	531,388	548,127	565,218		
Total Expenses	424,202	430,967	438,957	442,992	481,849	470,497	481,408	487,304	503,524	520,761	537,164	553,913		
Surplus / (Deficit)	2,387	3,896	5,057	27,035	4,359	(0)	6,597	9,818	10,276	10,627	10,963	11,304		
UMass OM Calc	0.6%	0.9%	1.1%	5.8%	0.9%	0.0%	1.4%	2.0%	2.0%	2.0%	2.0%	2.0%		

Boston: Enrollment Trend

<u>AAGR:</u>	<u>Total:</u>	<u>Undergraduate:</u>	<u>Graduate:</u>	<u>CE/Special Programs:</u>
FY24-28:	0.7	0.5	1.8	0.5
FY21-23:	-0.9	-0.9	1.6	0.1
FY18-20:	0.8	2.3	-0.5	-8.5

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Undergraduate	9,843	10,258	10,303	10,370	9,810	9,945	9,997	10,064	10,123	10,176	10,231	10,236
% Change		4.2%	0.4%	0.6%	-5.4%	1.4%	1.9%	0.7%	0.6%	0.5%	0.5%	0.0%
Graduate	1,804	1,727	1,784	1,792	1,556	1,627	1,829	1,872	1,992	1,996	1,996	1,996
% Change		-4.3%	3.3%	0.4%	-13.2%	4.6%	17.5%	2.3%	6.4%	0.2%	0.0%	0.0%
CE/Special Programs	1,389	1,228	1,162	1,409	1,593	1,644	1,050	1,064	1,070	1,073	1,075	1,075
% Change		-11.6%	-5.4%	21.3%	13.0%	3.2%	-34.1%	1.4%	0.5%	0.3%	0.2%	0.0%
Total	13,036	13,213	13,249	13,571	12,959	13,216	12,876	13,000	13,185	13,245	13,302	13,307
% Change		1.4%	0.3%	2.4%	-4.5%	2.0%	-0.6%	1.0%	1.4%	0.5%	0.4%	0.0%

Source: Actuals from student profile.

Boston: Enrollment by Residency

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
In State	10,248	10,635	10,647	11,045	10,608	10,555	10,056	9,989	10,036	10,088	10,140	10,140
% Change		3.8%	0.1%	3.7%	-4.0%	-0.5%	-5.2%	-0.7%	0.5%	0.5%	0.5%	0.0%
Out of State	746	813	867	898	1,046	1,152	1,377	1,445	1,464	1,471	1,476	1,480
% Change		9.0%	6.6%	3.6%	16.4%	10.1%	31.7%	5.0%	1.3%	0.5%	0.3%	0.3%
International	2,042	1,764	1,735	1,628	1,305	1,509	1,443	1,565	1,685	1,686	1,686	1,686
% Change		-13.6%	-1.6%	-6.2%	-19.8%	15.6%	10.5%	8.5%	7.6%	0.1%	0.0%	0.0%
Total	13,036	13,213	13,249	13,571	12,959	13,216	12,876	13,000	13,185	13,245	13,302	13,307
% Change		1.4%	0.3%	2.4%	-4.5%	2.0%	-0.6%	1.0%	1.4%	0.5%	0.4%	0.0%

Source: Actuals from student profile.

Boston: Enrollment by New v Continuing

<i>Undergraduate Enrollment (FTEs)</i>	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
New	2,998	3,345	3,251	3,084	3,005	3,066	3,244	3,290	3,327	3,349	3,364	3,321
First-time Freshman			1,993	2,015	1,978	2,028	2,324	2,365	2,399	2,418	2,432	2,390
Transfer			1,258	1,069	1,027	1,038	920	925	928	932	932	932
<i>% Change</i>	14.8%	11.6%	-2.8%	-5.1%	-2.6%	2.0%	8.0%	1.4%	1.1%	0.7%	0.4%	-1.3%
Continuing	6,844	6,913	7,052	7,286	6,805	6,879	6,753	6,773	6,796	6,827	6,867	6,915
<i>% Change</i>	-1.0%	1.0%	2.0%	3.3%	-6.6%	1.1%	-0.8%	0.3%	0.3%	0.5%	0.6%	0.7%
Undergraduate Total	9,843	10,258	10,303	10,370	9,810	9,945	9,997	10,063	10,123	10,176	10,231	10,236
<i>% Change</i>	3.3%	4.2%	0.4%	0.7%	-5.4%	1.4%	1.9%	0.7%	0.6%	0.5%	0.5%	0.1%

Source: Actuals from student profile.

Boston: Online Only

Career

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Undergraduate	9	2	15	28	-	-	187	187	188	189	190	190
% Change		-73.9%	536.1%	84.7%	-100.0%			0.2%	0.6%	0.5%	0.6%	0.0%
Graduate	2	13	12	9	-	-	46	46	47	47	47	47
% Change		550.0%	-5.1%	-29.7%	-100.0%			0.6%	1.1%	0.3%	0.0%	0.0%
Continuing Ed	692	630	743	810	1,310	1,351	766	769	773	776	777	777
% Change		-9.0%	17.9%	9.1%	61.7%	3.1%	-41.5%	0.3%	0.6%	0.4%	0.1%	0.0%
Total	703	645	770	847	1,310	1,351	999	1,002	1,008	1,012	1,014	1,014
% Change		-8.2%	19.4%	10.0%	54.7%	3.1%	-23.7%	0.3%	0.6%	0.4%	0.2%	0.0%

Residency

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
In State	449	421	525	589	968	962	762	760	763	766	768	768
% Change		-6.2%	24.6%	12.2%	64.3%	-0.6%	-21.3%	-0.2%	0.3%	0.4%	0.3%	0.0%
Out of State	14	15	9	21	52	57	216	219	221	222	222	222
% Change		6.8%	-36.2%	128.5%	146.8%	8.8%	312.5%	1.5%	0.6%	0.5%	0.1%	0.1%
International	240	209	236	237	290	332	21	23	25	25	25	25
% Change		-12.9%	12.7%	0.4%	22.3%	14.5%	-92.8%	8.1%	8.4%	0.1%	0.0%	0.0%
Total	703	645	770	847	1,310	1,351	999	1,002	1,008	1,012	1,014	1,014
% Change		-8.2%	19.4%	10.0%	54.7%	3.1%	-23.7%	0.3%	0.6%	0.4%	0.2%	0.0%

Source: Actuals from student profile.

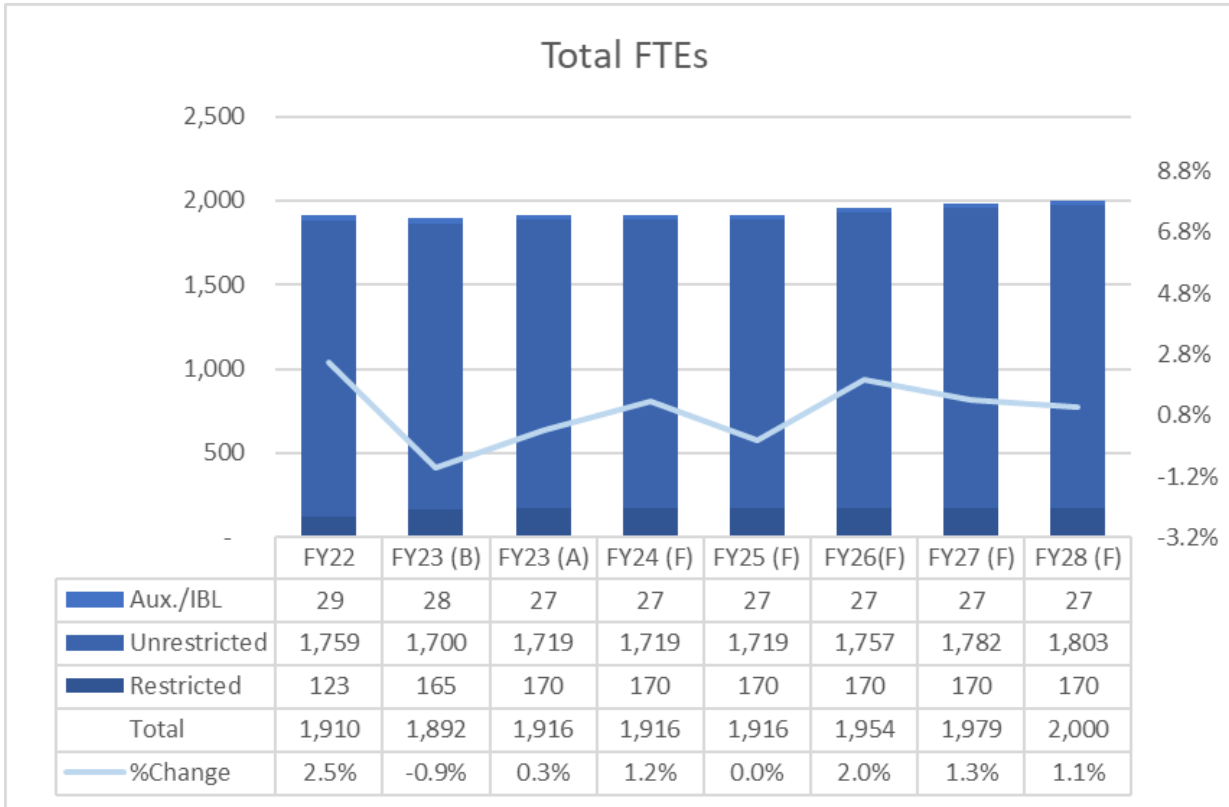
Boston: Staffing

Employee FTEs	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Restricted												
Faculty	13	12	10	7	6	9	7	7	7	7	7	7
Staff	153	135	132	126	116	156	163	163	163	163	163	163
Total Restricted	166	147	142	133	123	165	170	170	170	170	170	170
# Change		(19)	(5)	(9)	(10)	42	47	5	-	-	-	-
% Change		-11.3%	-3.4%	-6.5%	-7.8%	34.6%	38.7%	3.1%	0.0%	0.0%	0.0%	0.0%
Unrestricted General University Ops												
Faculty	862	873	864	843	861	853	851	851	851	870	882	893
Staff	983	931	941	869	898	847	868	868	868	887	900	910
<i>Executive/Admin/Managerial</i>	93	89	83	85	85	-	86	86	86	88	90	91
<i>Professional Nonfaculty</i>	590	559	574	540	572	-	546	546	546	558	566	573
<i>Secretarial/Clerical</i>	167	152	150	133	132	-	116	116	116	118	120	121
<i>Technical/Paraprofessional</i>	105	105	106	88	87	-	98	98	98	100	102	103
<i>Skilled Crafts</i>	12	11	11	9	10	-	11	11	11	11	11	12
<i>Service Maintenance Workers</i>	16	14	15	13	12	-	11	11	11	11	11	12
<i>Unspecified</i>												
Total General University Ops	1,845	1,804	1,805	1,712	1,759	1,700	1,719	1,719	1,719	1,757	1,782	1,803
# Change		(41)	1	(93)	47	(59)	(40)	19	-	38	25	21
% Change		-2.2%	0.1%	-5.2%	2.7%	-3.4%	-2.3%	1.1%	0.0%	2.2%	1.5%	1.2%
Unrestricted Aux./Independent Business												
Faculty	-	-	-	-	-	-	-	-	-	-	-	-
Staff	56	40	27	19	29	28	27	27	27	27	27	27
Total Aux./Independent Business	56	40	27	19	29	28	27	27	27	27	27	27
# Change		(16)	(13)	(8)	10	(1)	(2)	(1)	-	-	-	-
% Change		-29.1%	-32.7%	-30.6%	54.8%	-3.5%	-6.9%	-3.6%	0.0%	0.0%	0.0%	0.0%
Total Faculty & Staff	2,067	1,991	1,974	1,863	1,910	1,892	1,916	1,916	1,916	1,954	1,979	2,000
# Change		(76)	(17)	(111)	47	(18)	6	23	-	38	25	21
% Change		-3.7%	-0.8%	-5.6%	2.5%	-0.9%	0.3%	1.2%	0.0%	2.0%	1.3%	1.1%

FY23 budget staffing reflects average staffing as of 9/30 which includes filling some vacant positions

Boston: Staffing

Faculty & staff of 1,916 grows on average 1.1% over the forecast period.



Auxiliary / Independent Business Lines: staff including housing & dining

Unrestricted: faculty & staff that support general university operations

Restricted: faculty & staff funded by grant & endowed funds

FTEs:	27
% of Total FTEs:	1%
Faculty % / Staff %:	0% / 100%
Forecast AAGR:	-0.7%

FTEs:	1,719
% of Total FTEs:	90%
Faculty % / Staff %:	50% / 50%
Forecast AAGR:	1.2%

FTEs:	170
% of Total FTEs:	9%
Faculty % / Staff %:	4% / 96%
Forecast AAGR:	0.6%

Boston: Staffing Ratios

	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
<i>Student - Faculty</i>												
Student (FTE)	13,036	13,213	13,249	13,571	12,959	13,216	12,876	13,000	13,185	13,245	13,302	13,307
Faculty (FTE)	875	885	874	850	867	862	858	858	858	876	889	899
Student-Faculty Ratio	14.9	14.9	15.2	16.0	15.0	15.3	15.0	15.2	15.4	15.1	15.0	14.8
<i>Staff - Faculty (All)</i>												
Staff (FTE)	1,192	1,106	1,100	1,013	1,043	1,030	1,058	1,058	1,058	1,077	1,090	1,100
Faculty (FTE)	875	885	874	850	867	862	858	858	858	876	889	899
Staff-Faculty Ratio	1.4	1.2	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
<i>Staff - Faculty (E&G)</i>												
Staff (FTE)	983	931	941	869	898	847	868	868	868	887	900	910
Faculty (FTE)	862	873	864	843	861	853	851	851	851	870	882	893
Staff-Faculty Ratio (E&G)	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

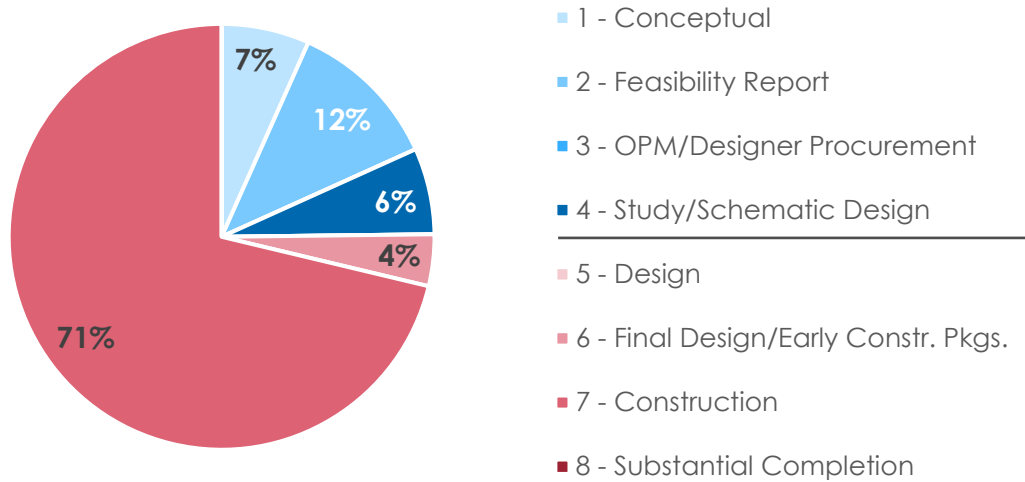
Boston: Key Ratios

Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Operating Margin (%)	0.6%	0.9%	1.1%	5.8%	0.9%	0.0%	1.4%	2.0%	2.0%	2.0%	2.0%	2.0%
Operating Margin (\$)	2,387	3,896	5,057	27,035	4,359	(0)	6,597	9,818	10,276	10,627	10,963	11,304
Operating Cash Flow Margin (%)	9.0%	11.2%	13.3%	17.3%	13.1%	12.1%	13.1%	13.7%	14.4%	14.2%	14.1%	13.7%
Operating Cash Flow Margin (\$)	36,282	46,650	56,042	75,716	59,035	54,722	61,419	66,007	71,755	73,600	75,189	75,453
Debt Service Burden (%)	6.3%	6.9%	7.5%	4.2%	6.6%	6.8%	6.6%	7.0%	6.3%	6.2%	6.1%	5.9%
Debt Service Coverage (x)	1.4	1.6	1.7	4.0	1.9	1.7	1.9	1.9	2.2	2.3	2.3	2.3
Financial Leverage (x)	0.30	0.32	0.34	0.40	0.40	0.63	0.47	0.60	0.64	0.68	0.73	0.78
Total Debt (\$ in thousands)	611,819	616,132	606,847	611,943	649,397	508,087	572,036	553,983	537,890	519,968	501,310	482,060
Total Cash & Investments to Op Expenses (x)	0.42	0.42	0.44	0.59	0.59	0.71	0.58	0.71	0.71	0.71	0.71	0.70
Enrollment	13,036	13,213	13,249	13,571	12,959	13,216	12,876	13,000	13,185	13,245	13,302	13,307
Enrollment (% Change)	-0.5%	1.4%	0.3%	2.4%	-4.5%	2.0%	-0.6%	1.0%	1.4%	0.5%	0.4%	0.0%

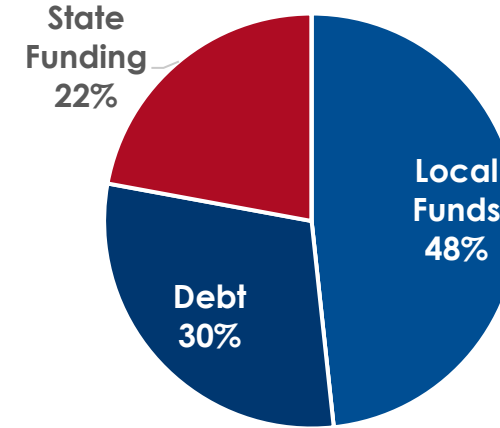
Boston: 19 Projects; \$217M; 11% of Capital Plan

71% of Projects in Construction or Substantial Completion

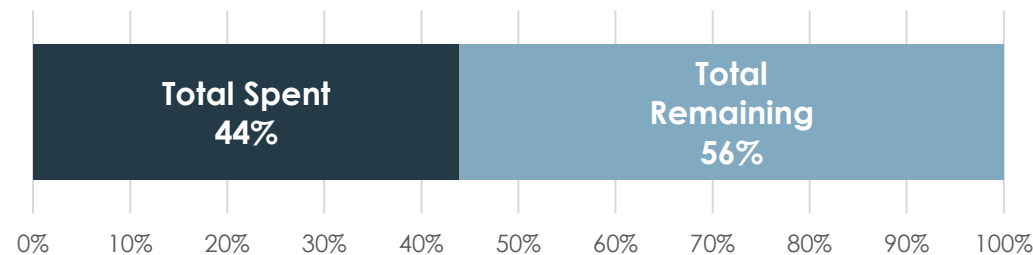
Projects by Phase



Funding Sources



Project Spending



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		

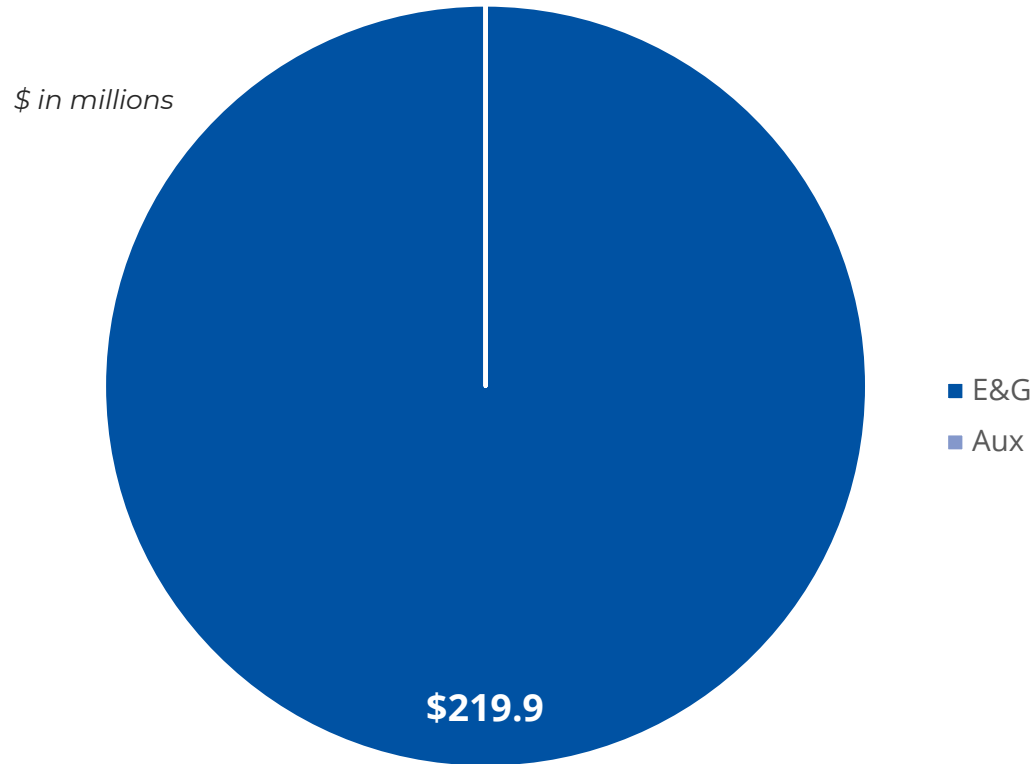
Alternative Finance & Delivery Projects	
Project	Adjusted Cost (\$)
Calf Pasture Pump House	-
Total	-

President Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
Campus Center Roof Replacement	5,000,000	1 - Conceptual	Authorized
Quinn Administration and Service & Supply Buildings Fire Protection	3,025,000	1 - Conceptual	Authorized
Wheatley Hall Façade Repairs	6,500,000	1 - Conceptual	Authorized
Healey Library Building Fire Protection	8,110,000	2 - Feasibility Report	Authorized
Healey Library Transformer Replacement	2,025,000	2 - Feasibility Report	Authorized
Utilities - Pumphouse & Cooling Capacity	9,000,000	2 - Feasibility Report	Authorized
Utilities SWPH Mechanical Repairs/Dredging	6,000,000	2 - Feasibility Report	Authorized
Clark Renovations (Title IX)	7,000,000	4 - Study / Schematic Design	Authorized
Clark Softball Field Renovations (Title IX)	5,000,000	4 - Study / Schematic Design	Authorized
Upgrade Building Controls Campus-Wide	2,250,000	4 - Study / Schematic Design	Authorized
Building Utility Submeter & SCADA	2,920,000	6 - Final Design / Early Construction Packages	Approved
Utility Plant Improvements	5,600,000	6 - Final Design / Early Construction Packages	Approved
Healey Ductwork Repair & Air Handling Unit Replacement	3,230,000	7 - Construction	Approved
McCormack Hall: Roof Replacement and Building Envelope Repairs Phase 2	5,354,850	7 - Construction	Approved
Network Refresh Edge Switches	3,554,456	7 - Construction	Approved
Repairs to Falling Sections of Harborwalk	3,277,760	7 - Construction	Approved
S&S Loading Dock Concrete Repairs	2,300,000	7 - Construction	Approved
Total	80,147,066		

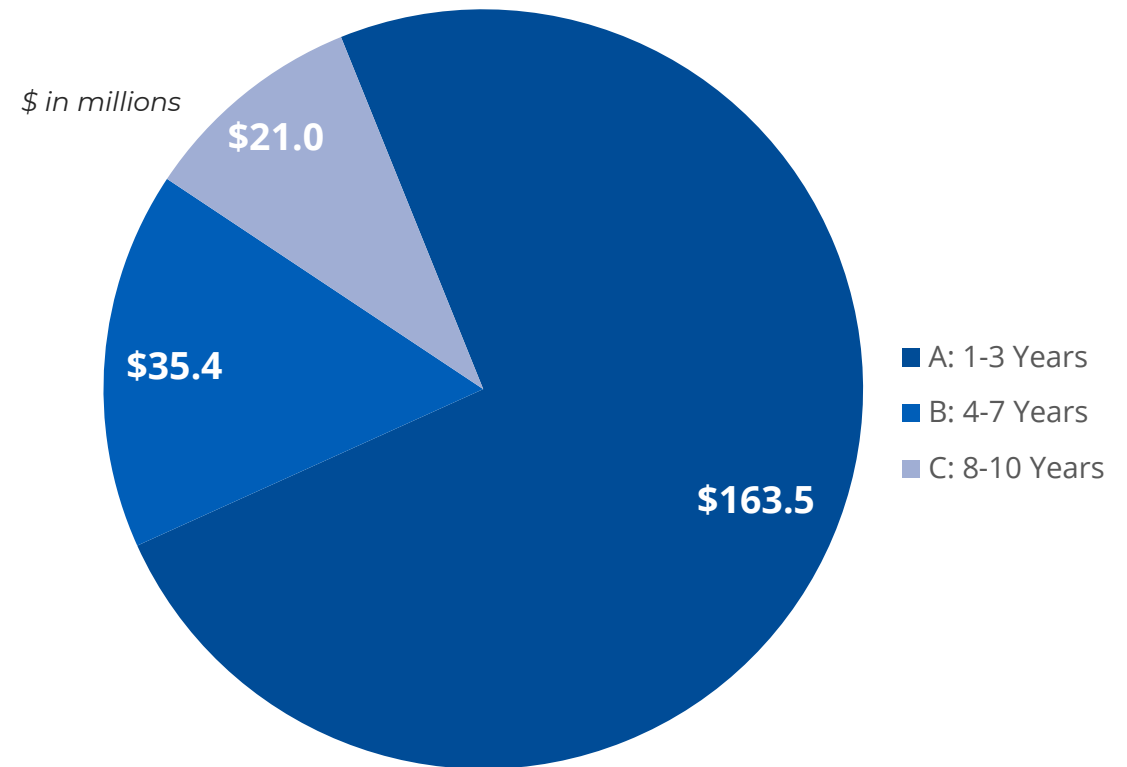
Boston: Deferred Maintenance

\$219.9 Million Backlog Coming Due in the Next 10 Years

\$219.9M: E&G vs. AUX



\$219.9M: By Timeframe



Boston: Deferred Maintenance

\$219.9 Million Backlog Coming Due in the Next 10 Years

By Package

Building Package	Project Cost (\$ millions)
Space Improvement	68.2
Building Systems	49.0
Building Envelope	46.4
Infrastructure	30.8
Safety/Code	25.4
Total	219.9

By System

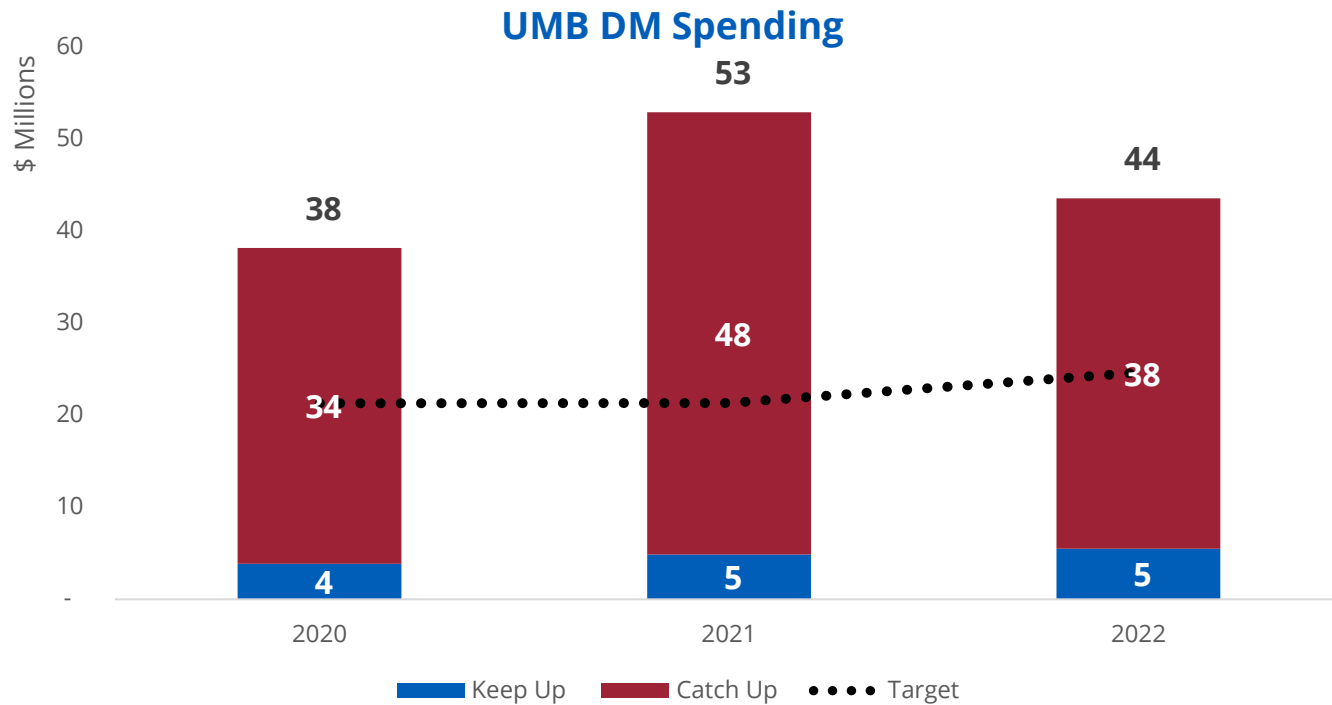
Building System	Project Cost (\$ millions)
Interior Shell	66.1
Exterior Shell	46.4
Safety/Code	25.3
Grounds	23.3
HVAC	16.5
Plumbing	13.7
Electrical	13.6
Cooling	11.3
Mechanical	2.9
Heating	0.7
Total	219.9

Top 10 Building Needs

Building	Project Cost (\$ millions)
Healey Library	45.0
Wheatley Hall	35.3
UMB Campus grounds/infrastructure	33.0
McCormack Hall	29.7
Campus Center	19.2
Service & Supply	14.1
Quinn Administration	10.5
Clark Athletic Center (Ice Rink / Lobby)	9.0
Salt Water Pump House	7.3
Integrated Sciences Complex	4.1
Total	207.4

Boston: Deferred Maintenance Dashboard (v1.0)- Annual Investment

<u>FY22 Keep Up</u> \$5.5 M	<u>FY22 Keep Up</u> \$24.6 M	<u>FY22 % Target</u> 22.3%
<u>FY22 Catch Up</u> \$38.1 M	<u>FY22 Catch Up</u> TBD	<u>FY22 % Target</u> N/A



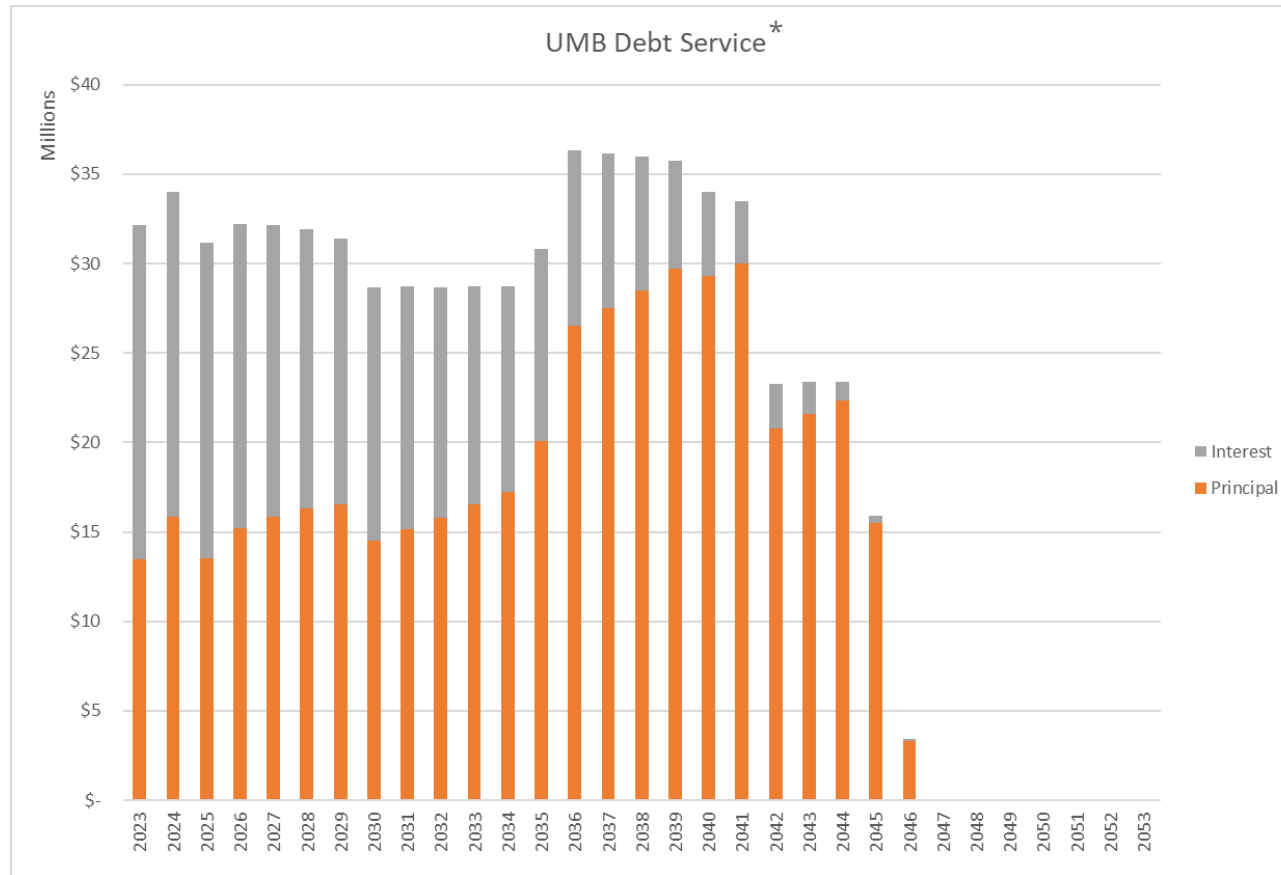
Boston: Deferred Maintenance - Annual Investment

\$ in thousands

	FY24	FY25	FY26	FY27	FY28
Keep Up					
Target	26,153	26,932	27,751	28,595	29,465
Depreciation	40,110	43,860	45,056	46,118	46,016
- Principal Payment	18,891	16,579	18,279	18,878	19,330
= Available for Keep Up	21,219	27,281	26,777	27,240	26,686
Forecast Spend	5,537	5,734	4,430	4,430	4,430
% of Target	21%	21%	16%	15%	15%

Catch Up					
Target (15 yrs)	14,658	14,658	14,658	14,658	14,658
Forecast Spend	21,293	19,474	12,953	12,953	12,953
% of Target	145%	133%	88%	88%	88%
Debt Service Burden	7.0%	6.3%	6.2%	6.1%	5.9%

- **Keep-Up:** targets established by Gordian meant to ensure investments sufficient to prevent backlog from growing
- **Depreciation:** (non-cash expenses) budgeted as a proxy to cover debt service; additional amount beyond debt payment available for keep up
- **Catch Up:** estimated 15 years to address backlog through major capital projects and one-time sources like State grants and borrowing



Key Ratio	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Debt Service Burden (%)	6.3%	6.9%	7.5%	4.2%	6.6%	6.8%	7.0%	6.3%	6.2%	6.1%	5.9%
Debt Service Coverage (x)	1.4	1.6	1.7	4.0	1.9	1.7	1.9	2.2	2.3	2.3	2.3
Financial Leverage (x)	0.30	0.32	0.34	0.40	0.40	0.63	0.60	0.64	0.68	0.73	0.78
Total Debt (\$ in thousands)	611,819	616,132	606,847	611,943	649,397	508,087	553,983	537,890	519,968	501,310	482,060

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.



FY24-28 Forecast: By the Numbers

Revenue & Expenses:

<u>FY23 Budget:</u>	<u>AAGR:</u>	<u>Rev</u>	<u>Exp</u>
	FY24-28: 3.6%	3.2%	
Total: \$258.8M	FY21-23: 1.1%	1.1%	
	FY18-20: 0.4%	1.8%	

Operating Margin:

<u>FY23 Budget:</u>	<u>Average:</u>
0.00%	FY24-28: 1.8%
	FY21-23: 0.5%
	FY18-20: 0.9%

Enrollment:

<u>FY23 Actual:</u>	<u>AAGR:</u>
FTEs: 6,314	FY24-28: 1.6%
	FY21-23: -3.2%
	FY18-20: -2.1%

Employees:

<u>FY23 Budget:</u>	<u>AAGR:</u>
Total: 1,077	FY24-28: 2.8%
	FY21-23: -3.0%
	FY18-20: -2.0%



Tuition Annual Increases:

- Undergraduate: 2.5%
- Graduate & Law: 0% for FY24-25; 1% FY26-28

Auxiliary Annual Increases:

- Housing: 3.0%
- Dining: 2.5%



~80% campus owned occupancy

- 2,014 beds; 800 offline due to deferred maintenance needs

~96% P3 occupancy



Deferred Maintenance:

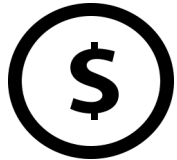
\$132 million FY22-26 capital plan

\$649 million deferred maintenance

- (44% of replacement value FY21 (24% University))

Capital:

- No new borrowing planned
- State investment in SENG & LARTS



Dartmouth: Revenue & Expenses

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY24-28	
	FY2018	FY2019	FY2020	FY2021	FY2022		FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Avg. Annual
Gross Tuition & Fees	116,766	121,340	120,535	116,562	112,674	115,739	115,739	125,141	131,890	136,636	141,949	147,514	17.9%	5.0%
Tuition Discounts	(38,795)	(42,762)	(39,858)	(34,440)	(38,704)	(40,494)	(40,494)	(42,548)	(44,843)	(46,456)	(48,263)	(50,155)	17.9%	4.4%
Discount Rate	33.2%	35.2%	33.1%	29.5%	34.4%	35.0%	35.0%	34.0%	34.0%	34.0%	34.0%	34.0%	0.0%	-0.6%
Net Tuition & Fees	77,971	78,578	80,677	82,122	73,970	75,245	75,245	82,593	87,047	90,180	93,686	97,359	17.9%	5.3%
Grants	18,925	18,918	18,677	19,674	22,855	21,573	21,573	21,858	23,661	24,636	24,267	24,021	9.9%	2.2%
Sales & Service, Educational	96	164	154	40	647	75	75	75	75	75	75	75	0.0%	0.0%
Auxiliary Enterprises	47,666	49,451	35,932	10,282	32,695	33,508	33,508	33,794	33,868	34,526	35,425	36,604	8.3%	1.8%
Other Operating	4,438	2,955	2,312	2,041	3,208	3,142	3,142	3,100	3,100	3,100	3,100	3,100	0.0%	-0.3%
State Appropriations	83,740	86,385	92,731	95,942	99,007	105,559	117,384	111,778	115,896	120,145	124,530	129,053	15.5%	4.1%
Other NonOperating	17,792	20,141	20,963	31,139	29,795	19,661	19,661	17,413	17,428	17,617	17,870	18,149	4.2%	-1.5%
Total Revenues	250,628	256,592	251,446	241,240	262,177	258,762	270,589	270,611	281,075	290,278	298,953	308,361	13.9%	3.6%
% Growth	0.9%	2.4%	-2.0%	-4.1%	8.7%	-1.3%	3.2%	4.6%	3.9%	3.3%	3.0%	3.1%		
Expenses														
Salaries & Fringe	150,061	151,746	152,040	142,296	150,681	156,713	162,559	168,204	173,310	179,360	185,834	192,525	14.5%	4.2%
Non-Personnel	65,795	66,939	62,457	55,867	68,750	64,463	67,763	65,100	67,725	72,371	75,199	78,755	21.0%	4.1%
Scholarships & Fellowships	5,023	5,302	5,641	11,395	14,412	7,285	7,285	5,000	5,250	5,513	5,788	6,078	21.6%	-2.3%
Depreciation	20,481	21,665	22,187	21,963	22,105	22,693	22,693	22,366	21,742	20,812	20,051	18,924	-15.4%	-3.6%
Interest	8,910	9,466	9,125	8,665	7,002	7,608	7,608	7,348	7,548	6,560	6,247	6,060	-17.5%	-4.3%
Total Expenses	250,270	255,118	251,450	240,186	262,950	258,762	267,908	268,018	275,575	284,616	293,119	302,341	12.8%	3.2%
% Growth	4.8%	1.9%	-1.4%	-4.5%	9.5%	-1.6%	1.9%	3.6%	2.8%	3.3%	3.0%	3.1%		
Operating Margin														
UMass OM Calc Revenues	253,071	258,776	251,531	241,849	264,819	258,762	270,589	270,611	281,075	290,278	298,953	308,361		
Total Expenses	250,270	255,118	251,450	240,186	262,950	258,762	267,908	268,018	275,575	284,616	293,119	302,341		
Surplus / (Deficit)	2,801	3,658	81	1,663	1,869	0	2,681	2,594	5,500	5,663	5,834	6,020		
UMass OM Calc	1.1%	1.4%	0.0%	0.7%	0.7%	0.0%	1.0%	1.0%	2.0%	2.0%	2.0%	2.0%		

Dartmouth: Enrollment Trend

<u>AAGR:</u>	<u>Total:</u>	<u>Undergraduate:</u>	<u>Graduate:</u>	<u>CE:</u>
FY24-28:	1.6	0.0	8.2	4.0
FY21-23:	-3.2	-5.6	9.6	-2.0
FY18-20:	-2.1	-2.9	-12.3	6.5

Students (FTEs)	Actual					Budget Actual		Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Undergraduate	5,582	5,600	5,261	4,993	4,635	4,512	4,422	4,374	4,321	4,322	4,360	4,418
% Change		0.3%	-6.1%	-5.1%	-7.2%	-2.7%	-4.6%	-1.1%	-1.2%	0.0%	0.9%	1.3%
Graduate	698	594	536	580	566	595	697	809	1,009	1,009	1,009	1,009
% Change		-14.9%	-9.8%	8.2%	-2.4%	5.1%	23.1%	16.1%	24.7%	0.0%	0.0%	0.0%
Continuing Ed	822	937	928	809	931	976	853	885	921	958	997	1,039
% Change		14.0%	-1.0%	-12.8%	15.1%	4.9%	-8.4%	3.8%	4.1%	4.0%	4.1%	4.2%
Law	184	199	246	328	326	325	341	343	348	353	358	363
% Change		8.4%	23.6%	33.2%	-0.5%	-0.3%	4.6%	0.6%	1.5%	1.4%	1.4%	1.4%
Total	7,285	7,330	6,971	6,710	6,458	6,408	6,314	6,411	6,599	6,642	6,724	6,829
% Change		0.6%	-4.9%	-3.7%	-3.8%	-0.8%	-2.2%	1.5%	2.9%	0.7%	1.2%	1.6%

Source: Actuals from student profile.

Dartmouth: Enrollment by Residency

Students (FTEs)	Actual					Budget Actual		Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
In State	6,211	6,188	5,814	5,603	5,316	5,207	5,014	5,010	4,988	4,936	4,935	4,970
% Change		-0.4%	-6.0%	-3.6%	-5.1%	-2.1%	-5.7%	-0.1%	-0.4%	-1.0%	-0.0%	0.7%
Out of State	928	991	1,030	1,029	1,084	1,186	911	960	1,010	1,105	1,188	1,258
% Change		6.8%	3.9%	-0.2%	5.3%	9.5%	-15.9%	5.4%	5.2%	9.4%	7.5%	5.9%
International	147	151	127	79	59	15	389	441	601	601	601	601
% Change		3.1%	-15.8%	-37.9%	-25.6%	-74.5%	562.3%	13.4%	36.3%	0.0%	0.0%	0.0%
Total	7,285	7,330	6,971	6,710	6,458	6,408	6,314	6,411	6,599	6,642	6,724	6,829
% Change		0.6%	-4.9%	-3.7%	-3.8%	-0.8%	-2.2%	1.5%	2.9%	0.7%	1.2%	1.6%

Source: Actuals from student profile.

Dartmouth: Enrollment by New v Continuing

Undergraduate Enrollment (FTEs)	Actual					Budget Actual		Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
New	1,647	1,833	1,721	1,533	1,492	1,520	1,506	1,574	1,615	1,659	1,701	1,726
First-time Freshman	1,219	1,302	1,300	1,265	1,258	1,286	1,271	1,337	1,378	1,422	1,464	1,489
Transfer	428	531	421	268	234	234	235	237	237	237	237	237
<i>% Change</i>	<i>-1.0%</i>	<i>11.3%</i>	<i>-6.1%</i>	<i>-10.9%</i>	<i>-2.6%</i>	<i>1.9%</i>	<i>0.9%</i>	<i>4.5%</i>	<i>2.6%</i>	<i>2.7%</i>	<i>2.5%</i>	<i>1.5%</i>
Continuing	3,934	3,767	3,540	3,461	3,143	2,992	2,916	2,800	2,706	2,663	2,659	2,692
<i>% Change</i>	<i>-6.3%</i>	<i>-4.3%</i>	<i>-6.0%</i>	<i>-2.2%</i>	<i>-9.2%</i>	<i>-4.8%</i>	<i>-2.5%</i>	<i>-4.0%</i>	<i>-3.4%</i>	<i>-1.6%</i>	<i>-0.2%</i>	<i>1.2%</i>
Undergraduate Total	5,582	5,600	5,261	4,993	4,635	4,512	4,422	4,374	4,321	4,322	4,360	4,418
<i>% Change</i>	<i>-4.8%</i>	<i>0.3%</i>	<i>-6.1%</i>	<i>-5.1%</i>	<i>-7.2%</i>	<i>-2.7%</i>	<i>-1.8%</i>	<i>-1.1%</i>	<i>-1.2%</i>	<i>0.0%</i>	<i>0.9%</i>	<i>1.3%</i>

Source: Actuals from student profile.

Dartmouth: Online Only

Career

Online Only

Students (FTEs)	Actual					Budget Actual		Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Undergraduate	-	-	-	-	-	-	-	-	-	-	-	-
% Change												
Graduate	-	-	-	-	-	-	-	-	-	-	-	-
% Change												
Continuing Ed	315	546	649	690	804	856	675	709	745	782	821	863
% Change		73.3%	18.9%	6.3%	16.5%	6.5%	-16.0%	5.0%	5.1%	5.0%	5.0%	5.1%
Total	315	546	649	690	804	856	675	709	745	782	821	863
% Change		73.3%	18.9%	6.3%	16.5%	6.5%	-16.0%	5.0%	5.1%	5.0%	5.0%	5.1%

Residency

Online Only

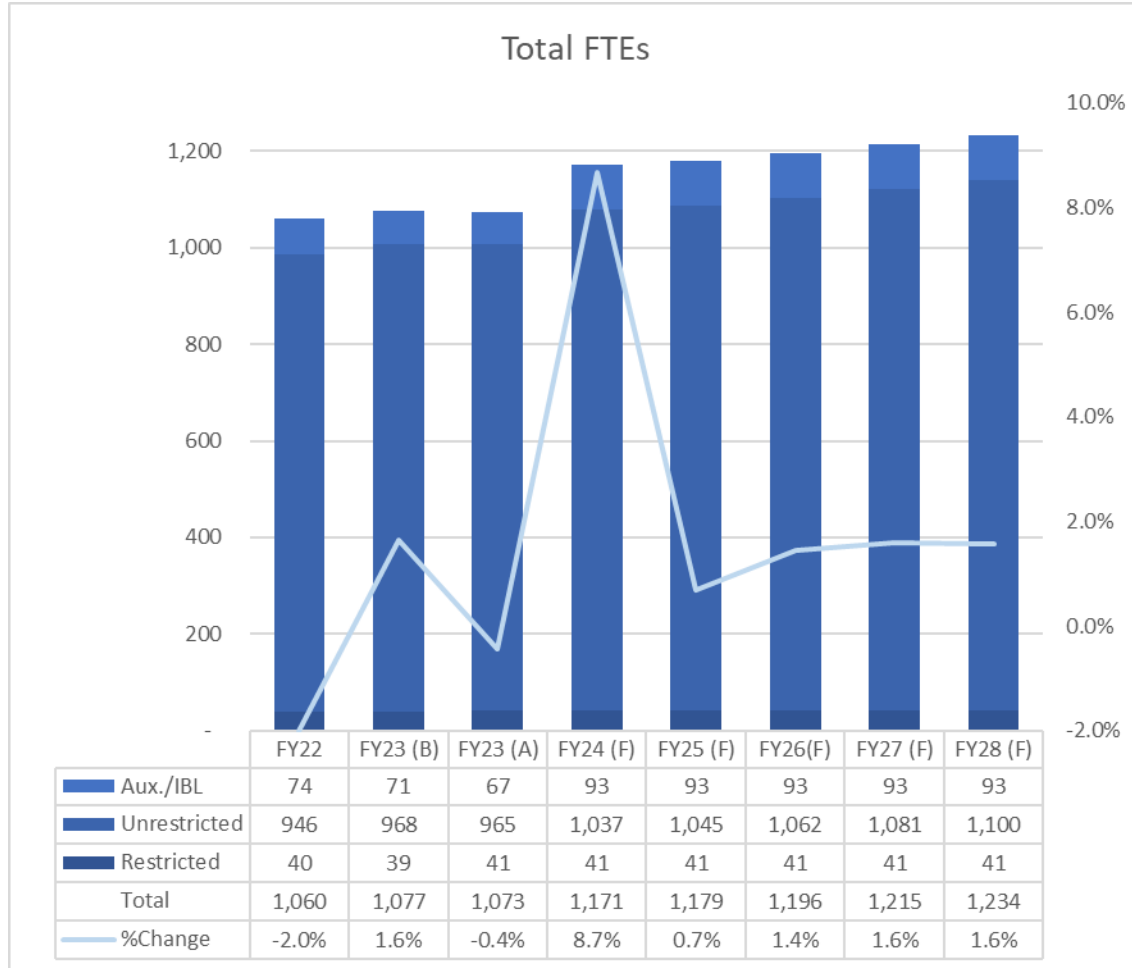
Students (FTEs)	Actual					Budget Actual		Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
In State	234	412	477	501	593	630	489	513	539	566	594	624
% Change		76.1%	15.8%	5.0%	18.4%	6.3%	-17.5%	4.9%	5.1%	5.0%	4.9%	5.1%
Out of State	81	134	172	189	211	226	174	184	194	204	215	227
% Change		65.4%	28.4%	9.9%	11.6%	7.1%	-17.5%	5.7%	5.4%	5.2%	5.4%	5.6%
International	-	-	-	-	-	-	12	12	12	12	12	12
% Change								0.0%	0.0%	0.0%	0.0%	0.0%
Total	315	546	649	690	804	856	675	709	745	782	821	863
% Change		73.3%	18.9%	6.3%	16.5%	6.5%	-16.0%	5.0%	5.1%	5.0%	5.0%	5.1%

Dartmouth: Staffing

	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Restricted												
Faculty	6	5	5	6	5	6	4	4	4	4	4	4
Staff	30	31	31	32	35	33	37	37	37	37	37	37
Total Restricted	36	36	36	38	40	39	41	41	41	41	41	41
# Change		-	-	2	2	1	2	-	-	-	-	-
% Change		0%	0%	5%	5%	2%	5%	0%	0%	0%	0%	0%
Unrestricted General University Ops												
Faculty	464	466	457	437	434	432	439	451	455	465	476	487
Staff	597	595	577	530	513	536	527	586	590	597	605	613
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	946	968	965	1,037	1,045	1,062	1,081	1,100
# Change			(27)	(67)	(21)	1	(2)	72	8	17	19	19
% Change		0%	-3%	-7%	-2%	0%	0%	7%	1%	2%	2%	2%
Unrestricted Aux./Independent Business												
Faculty	-	-	-	-	-	-	-	-	-	-	-	-
Staff	106	107	91	77	74	71	67	93	93	93	93	93
Total Aux./Independent Business	106	107	91	77	74	71	67	93	93	93	93	93
# Change		1	(16)	(14)	(3)	(6)	(5)	27	-	-	-	-
% Change		1%	-17%	-18%	-4%	-9%	-7%	28%	0%	0%	0%	0%
Total Faculty & Staff	1,203	1,204	1,161	1,082	1,060	1,077	1,073	1,171	1,179	1,196	1,215	1,234
# Change		1	(43)	(79)	(22)	(5)	(5)	98	8	17	19	19
% Change		0%	-4%	-7%	-2%	0%	0%	8%	1%	1%	2%	2%

Dartmouth: Staffing

Faculty & staff of 1,077 grows on average 3% over the forecast period.



Auxiliary / Independent

Business Lines: staff

including housing & dining

Unrestricted: faculty & staff

that support general university operations

Restricted: faculty & staff

funded by grant & endowed funds

FTEs:	71
% of Total FTEs:	6%
Faculty % / Staff %:	0% / 100%
Forecast AAGR:	6.2%

FTEs:	968
% of Total FTEs:	90%
Faculty % / Staff %:	45% / 55%
Forecast AAGR:	2.6%

FTEs:	39
% of Total FTEs:	4%
Faculty % / Staff %:	16% / 84%
Forecast AAGR:	1.1%

Dartmouth: Staffing Ratios

	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Student - Faculty												
Student (FTE)	7,285	7,330	6,971	6,710	6,458	6,408	6,314	6,411	6,599	6,642	6,724	6,829
Faculty (FTE)	470	471	462	443	439	438	443	455	459	469	480	491
Student-Faculty Ratio	15.5	15.6	15.1	15.2	14.7	14.6	14.3	14.1	14.4	14.2	14.0	13.9
Staff - Faculty (All)												
Staff (FTE)	733	733	699	639	622	639	630	716	720	727	735	743
Faculty (FTE)	470	471	462	443	439	438	443	455	459	469	480	491
Staff-Faculty Ratio	1.6	1.6	1.5	1.4	1.4	1.5	1.4	1.6	1.6	1.6	1.5	1.5
Staff - Faculty (E&G)												
Staff (FTE)	597	595	577	530	513	536	527	586	590	597	605	613
Faculty (FTE)	464	466	457	437	434	432	439	451	455	465	476	487
Staff-Faculty Ratio (E&G)	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3

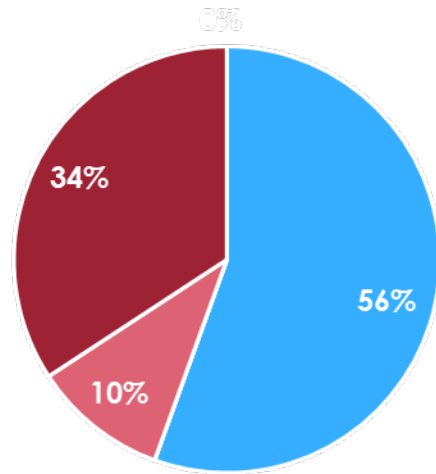
Dartmouth: Key Ratios

Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Operating Margin (%)	1.1%	1.4%	0.0%	0.7%	0.7%	0.0%	1.0%	1.0%	2.0%	2.0%	2.0%	2.0%
Operating Margin (\$)	2,801	3,658	81	1,663	1,869	0	2,681	2,594	5,500	5,663	5,834	6,020
Operating Cash Flow Margin (%)	10.6%	12.8%	12.2%	13.4%	12.6%	10.9%	11.7%	12.4%	12.9%	11.7%	11.0%	10.3%
Operating Cash Flow Margin (\$)	25,525	32,192	29,670	30,643	31,613	26,989	30,412	33,071	35,547	33,257	32,344	31,205
Debt Service Burden (%)	7.6%	7.8%	7.7%	4.1%	5.8%	5.9%	5.6%	6.0%	6.0%	5.6%	4.8%	4.7%
Debt Service Coverage (x)	1.3	1.6	1.5	3.1	2.1	1.8	2.0	2.0	2.2	2.1	2.3	2.2
Financial Leverage (x)	0.45	0.29	0.31	0.42	0.51	0.40	0.18	0.46	0.49	0.53	0.57	0.61
Total Debt (\$ in thousands)	205,513	351,883	338,643	346,740	342,167	338,643	315,110	305,301	295,155	284,332	274,666	264,420
Total Cash & Investments to Op Expenses (x)	0.38	0.42	0.42	0.64	0.70	0.54	0.22	0.53	0.54	0.54	0.54	0.55
Enrollment	7,285	7,330	6,971	6,710	6,458	6,408	6,314	6,411	6,599	6,642	6,724	6,829
Enrollment (% Change)	-3.6%	0.6%	-4.9%	-3.7%	-3.8%	-0.8%	-2.2%	1.5%	2.9%	0.7%	1.2%	1.6%

Dartmouth: 3 Projects; \$132M; 7% of Capital Plan

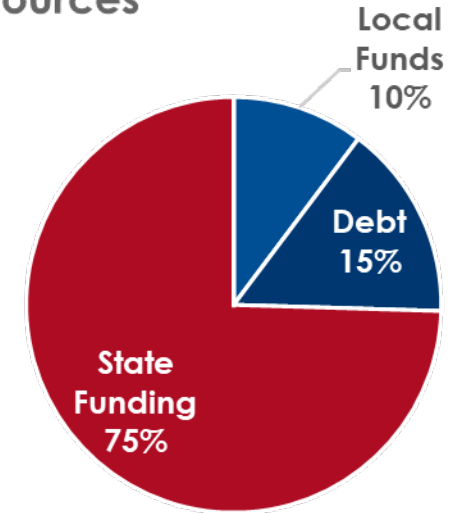
44% of Projects in Construction or Substantial Completion

Projects by Phase

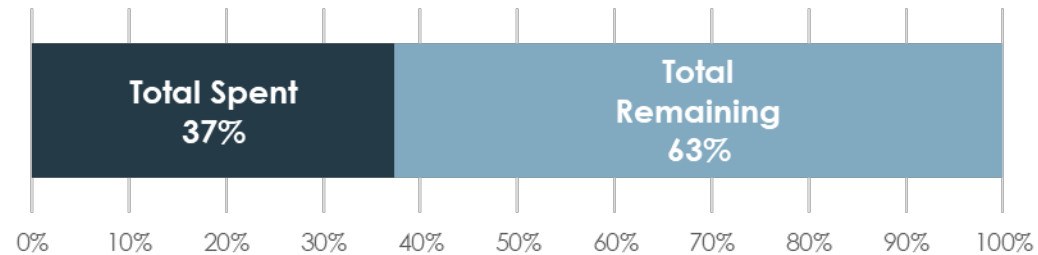


- 1 - Conceptual
- 2 - Feasibility Report
- 3 - OPM/Designer Procurement
- 4 - Study/Schematic Design
- 5 - Design
- 6 - Final Design/Early Constr. Pkgs.
- 7 - Construction
- 8 - Substantial Completion

Funding Sources



Project Spending



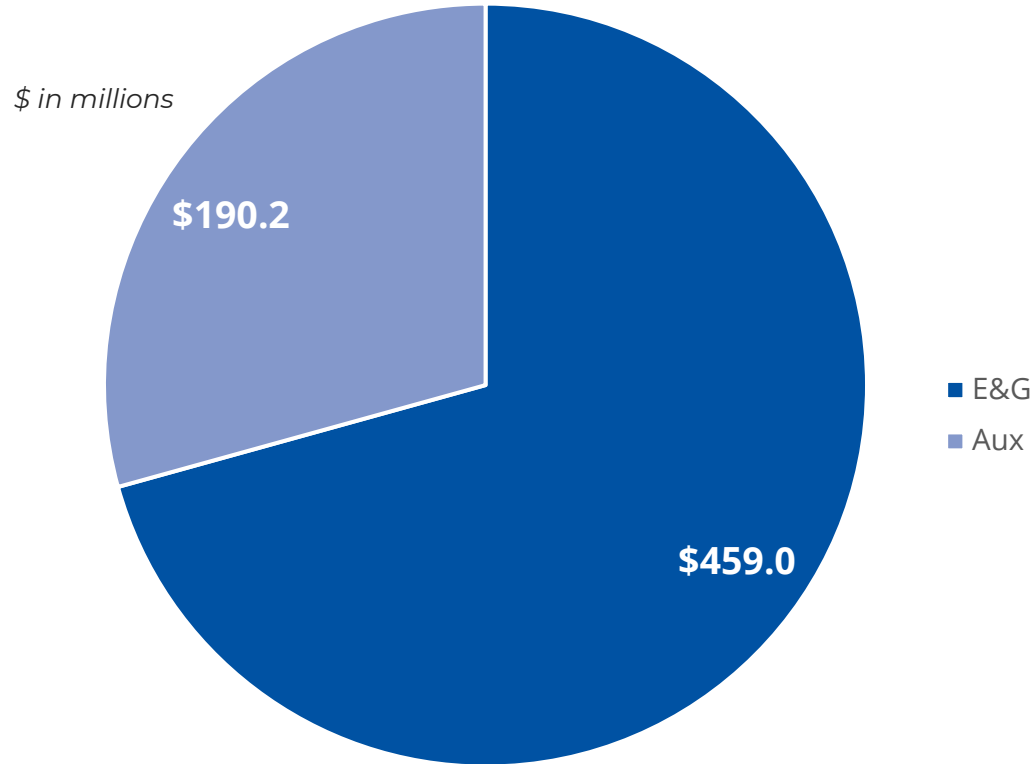
Dartmouth Projects

Traditional Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
LARTS HVAC Renovation/Upgrade	73,000,000	3 - Owner's Project Manager/Designer Procurement	Authorized
Traditional First Year Residence Hall Demolition	13,500,000	7 - Construction	Approved
SENG - Building System Project	45,000,000	8 - Substantial Completion	Approved
Total	131,500,000		

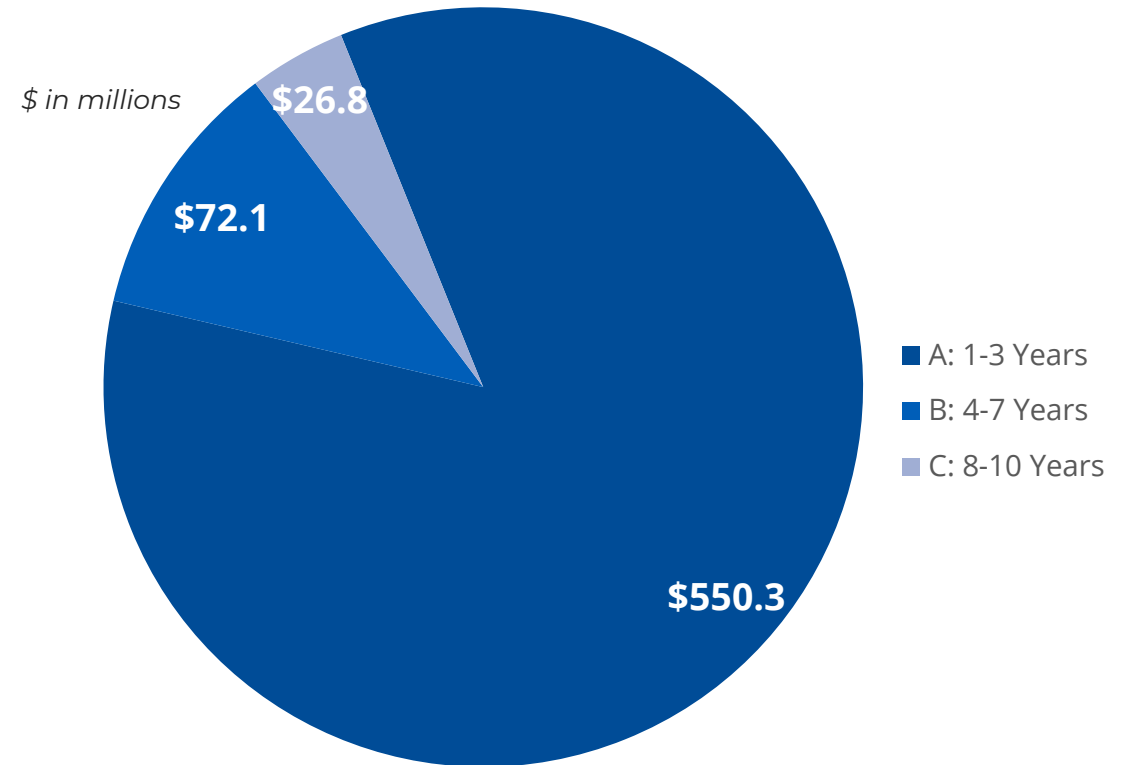
Dartmouth: Deferred Maintenance

\$649.2 Million Backlog Coming Due in the Next 10 Years

\$649.2M: E&G vs. AUX



\$649.2M: By Timeframe



Dartmouth: Deferred Maintenance

\$649.2 Million Backlog Coming Due in the Next 10 Years

- Capital plan addresses backlog at the SENG and LARTS buildings without additional debt issuance due to significant state investment

By Package

Building Package	Project Cost (\$ millions)
Building Systems	190.3
Space Improvement	124.3
Safety/Code	114.5
Infrastructure	113.0
Building Envelope	107.2
Total	649.2

By System

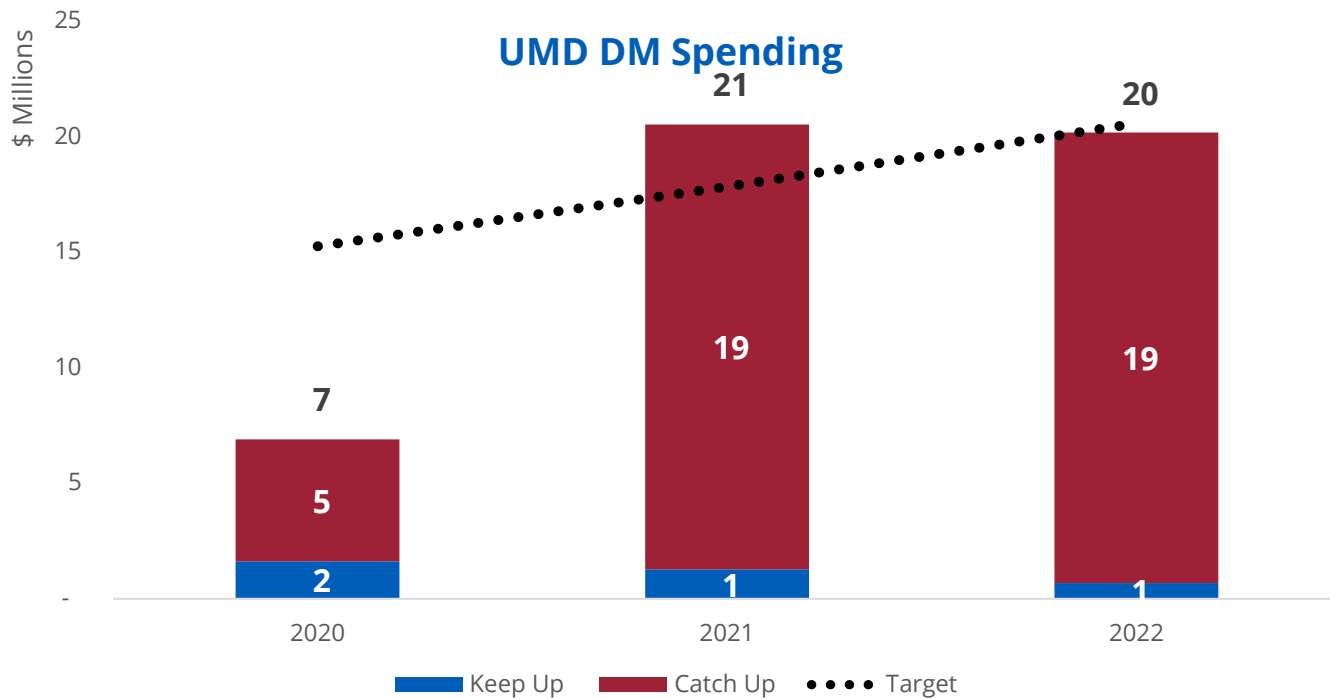
Building System	Project Cost (\$ millions)
Interior Shell	166.9
Exterior Shell	98.4
HVAC	92.1
Grounds	88.7
Safety/Code	83.2
Plumbing	59.1
Heating	32.3
Electrical	16.7
Cooling	7.6
Mechanical	4.1
Total	649.2

Top 10 Building Needs

Building	Project Cost (\$ millions)
Campus Grounds/infrastructure	100.1
Science and Engineering - Group II	83.5
Liberal Arts- Group 1	71.2
Tripp Athletic Center	46.2
Dion Science and Engineering	25.3
Central Utility Plant	22.3
Oak Glen Hall	20.7
Center for Visual and Performing Arts -Group VI	19.5
Ring Road	17.5
Foster Administration	15.7
Total	422.1

Dartmouth: Deferred Maintenance Dashboard (v1.0)- Annual Investment

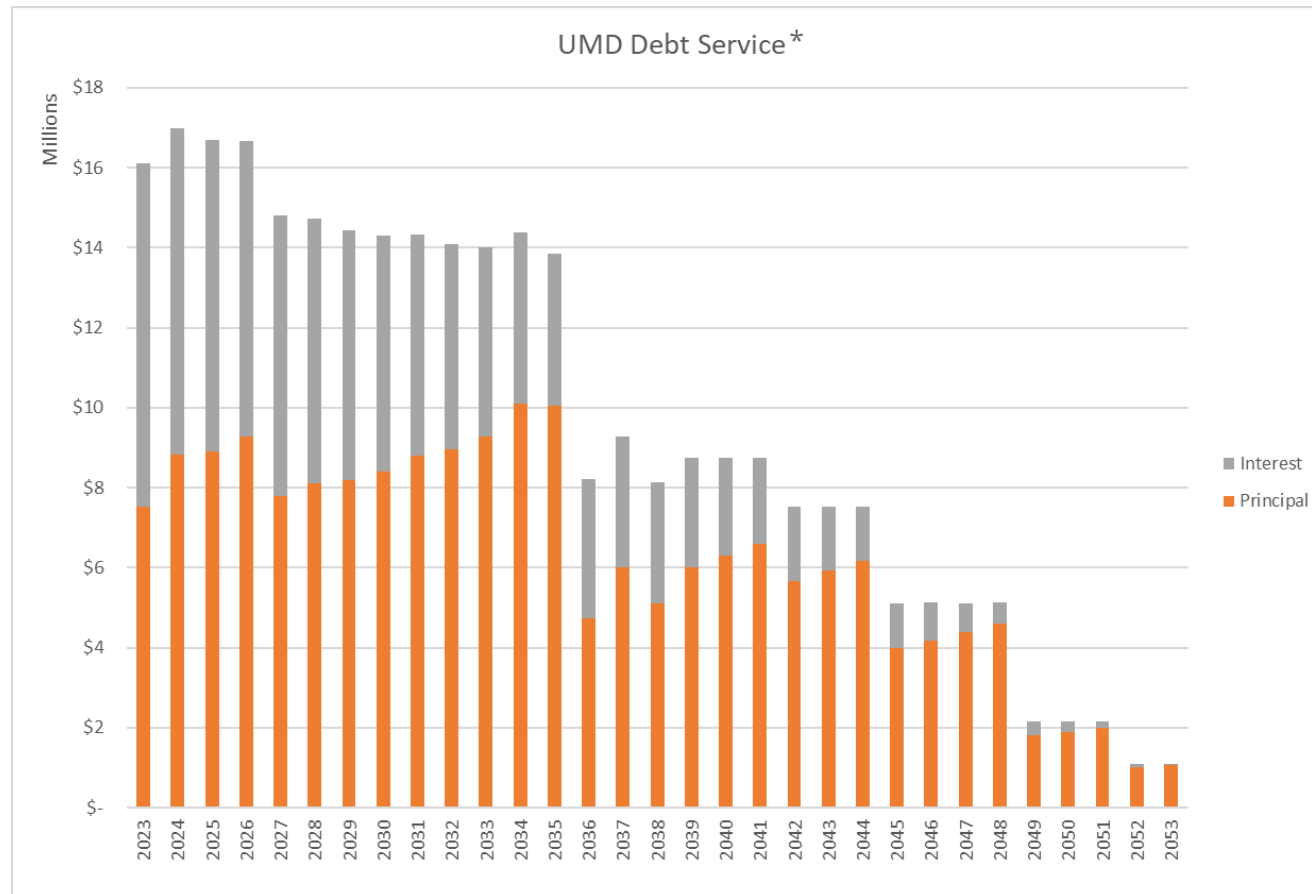
<u>FY22 Keep Up</u> \$684 k	<u>FY22 Keep Up</u> \$20.6 M	<u>FY22 % Target</u> 3.3%
<u>FY22 Catch Up</u> \$19.5 M	<u>FY22 Catch Up</u> TBD	<u>FY22 % Target</u> N/A



Dartmouth: Deferred Maintenance - Annual Investment

<i>\$ in thousands</i>	FY24	FY25	FY26	FY27	FY28
Keep Up					
Target	20,536	21,249	21,735	22,207	22,506
Depreciation	20,580	19,986	19,602	18,939	17,794
- Principal Payment	8,834	8,896	9,277	7,801	8,101
= Available Keep Up	11,746	11,090	10,325	10,588	9,693
Forecast Spend	2,200	2,300	4,255	4,325	4,850
% of Target	11%	11%	20%	19%	22%
Catch Up					
Target (15 yrs)	43,280	43,280	43,280	43,280	43,280
Forecast Spend	29,500	47,500	30,000	9,500	-
% of Target	68%	110%	69%	22%	0%
Debt Service Burden	6.0%	6.0%	5.6%	4.8%	4.7%

- **Keep-Up:** targets established by Gordian meant to ensure investments sufficient to prevent backlog from growing
- **Depreciation:** (non-cash expenses) budgeted as a proxy to cover debt service; additional amount beyond debt payment available for keep up
- **Catch Up:** estimated 15 years to address backlog through major capital projects and one-time sources like State grants and borrowing



Key Ratio

	Actual					Budget	Q1 Projection	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Debt Service Burden (%)	7.6%	7.8%	7.7%	4.1%	5.8%	5.9%	5.6%	6.0%	6.0%	5.6%	4.8%	4.7%
Debt Service Coverage (x)	1.3	1.6	1.5	3.1	2.1	1.8	2.0	2.0	2.2	2.1	2.3	2.2
Financial Leverage (x)	0.45	0.29	0.31	0.42	0.51	0.40	0.18	0.46	0.49	0.53	0.57	0.61
Total Debt (\$ in thousands)	205,513	351,883	338,643	346,740	342,167	338,643	315,110	305,301	295,155	284,332	274,666	264,420

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: Overview

Revenue & Expenses:

<u>FY23 Budget:</u>	<u>AAGR:</u>	<u>Rev</u>	<u>Exp</u>
	FY24-28: 4.5%	4.1%	
Total: \$529.2M	FY21-23: 3.5%	3.4%	
	FY18-20: 3.0%	4.1%	

Operating Margin:

<u>FY23 Budget:</u>	<u>Average:</u>	
0.0%	FY24-28: 1.9%	
	FY21-23: 1.3%	
	FY18-20: 0.7%	

Enrollment:

<u>FY23 Actual:</u>	<u>AAGR:</u>	
	FY24-28: 1.4%	
FTEs: 13,925	FY21-23: -2.0%	
	FY18-20: 1.3%	

Employees:

<u>FY23 Budget:</u>	<u>AAGR:</u>	
	FY24-28: 0.9%	
Total: 1,986	FY21-23: 0.1%	
	FY18-20: 1.9%	



Tuition Annual Increases:

- Undergraduate: 2.5%
- Graduate: 2.5%

Auxiliary Annual Increases:

- Housing: 2.5%
- Dining: 3.0%



~92% Occupancy

- 4,600 available beds
- 4,232 forecasted



Deferred Maintenance:

\$203 million FY22-26 capital plan

\$854.9 million deferred maintenance

- (39% of replacement value FY21 (24% University))

Capital:

- \$72M in new borrowing planned in FY26
 - Olney & Weed Hall & Ball Hall

Lowell: Revenue & Expenses Trend

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY24-28	
	FY2018	FY2019	FY2020	FY2021	FY2022		FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Avg. Annual
Gross Tuition & Fees	256,002	259,130	263,115	267,559	254,039	254,039	255,782	263,193	273,856	284,024	291,081	298,315	13.3%	3.3%
Tuition Discounts	(61,218)	(65,369)	(67,631)	(61,850)	(66,040)	(67,000)	(67,000)	(68,169)	(70,177)	(72,089)	(73,374)	(74,697)	9.6%	2.2%
Discount Rate	23.9%	25.2%	25.7%	23.1%	26.0%	26.4%	26.2%	25.9%	25.6%	25.4%	25.2%	25.0%	-3.3%	-1.0%
Net Tuition & Fees	194,784	193,761	195,484	205,709	187,999	187,039	188,782	195,024	203,679	211,935	217,707	223,618	14.7%	3.6%
Grants	44,875	53,613	57,639	66,027	80,543	82,446	86,081	92,861	100,737	106,935	113,204	118,767	27.9%	7.6%
Sales & Service, Educational	925	1,436	1,481	2,224	2,474	2,223	2,768	3,356	3,691	4,060	4,466	4,913	46.4%	18.2%
Auxiliary Enterprises	65,030	68,923	55,461	14,473	57,875	68,024	61,718	68,257	70,169	72,075	75,057	78,329	14.8%	2.9%
Other Operating	7,438	8,129	6,629	5,023	6,322	4,915	5,642	6,342	5,504	5,786	6,087	6,339	0.0%	6.1%
State Appropriations	117,668	122,802	127,688	133,768	140,053	152,134	163,606	157,945	165,144	171,725	179,381	187,299	18.6%	4.2%
Other NonOperating	28,322	36,106	35,738	47,702	58,424	32,377	33,015	37,163	38,582	38,477	39,451	39,723	6.9%	4.3%
Total Revenues	459,042	484,770	480,120	474,927	533,690	529,157	541,612	560,949	587,506	610,993	635,353	658,989	17.5%	4.5%
% Growth	4.4%	5.6%	-1.0%	-1.1%	12.4%	-0.8%	1.5%	6.0%	4.7%	4.0%	4.0%	3.7%		
Expenses														
Salaries & Fringe	262,133	274,695	284,516	275,253	295,290	300,745	310,422	324,338	336,146	359,499	371,424	383,298	18.2%	5.0%
Non-personnel	121,734	128,938	123,928	107,933	132,945	135,508	131,874	132,213	142,014	137,915	146,822	158,567	19.9%	3.3%
Scholarships & Fellowships	9,983	9,641	11,439	14,024	24,612	14,081	16,153	18,238	19,672	20,930	22,241	22,541	23.6%	10.3%
Depreciation	37,806	42,147	44,482	47,873	59,075	58,522	58,902	57,260	55,339	56,905	59,212	59,057	3.1%	0.2%
Interest	19,896	21,231	18,879	18,800	21,536	20,301	20,329	20,485	22,587	23,517	22,942	22,343	9.1%	2.0%
Total Expenses	451,552	476,652	483,244	463,883	533,458	529,157	537,680	552,534	575,758	598,766	622,641	645,806	16.9%	4.1%
% Growth	5.4%	5.6%	1.4%	-4.0%	15.0%	-0.8%	0.8%	4.4%	4.2%	4.0%	4.0%	3.7%		
Operating Margin														
UMass OM Calc Revenues	458,337	482,786	480,544	477,589	538,248	529,157	541,612	560,949	587,506	610,993	635,353	658,989		
Total Expenses	451,552	476,652	483,244	463,883	533,458	529,157	537,680	552,534	575,758	598,766	622,641	645,806		
Surplus / (Deficit)	6,785	6,134	(2,700)	13,706	4,790	0	3,933	8,414	11,748	12,227	12,711	13,182		
UMass OM Calc	1.5%	1.3%	-0.6%	2.9%	0.9%	0.0%	0.7%	1.5%	2.0%	2.0%	2.0%	2.0%		

Lowell: Enrollment Trend

<u>AAGR:</u>	<u>Total:</u>	<u>Undergraduate:</u>	<u>Graduate:</u>	<u>CE:</u>
FY24-28:	1.4	1.8	1.0	0.8
FY21-23:	-2.0	-4.8	9.2	13.6
FY18-20:	1.3	2.4	-0.9	1.4

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Undergraduate	10,488	10,767	10,995	10,739	10,010	9,405	9,469	9,573	9,887	10,154	10,239	10,325
% Change		2.7%	2.1%	-2.3%	-6.8%	-6.0%	-5.4%	1.1%	3.3%	2.7%	0.8%	0.8%
Graduate	2,692	2,674	2,642	2,942	3,292	3,480	3,432	3,466	3,501	3,536	3,571	3,607
% Change		-0.7%	-1.2%	11.4%	11.9%	5.7%	4.2%	1.0%	1.0%	1.0%	1.0%	1.0%
Continuing Ed	1,243	1,160	1,152	1,173	1,019	1,034	1,024	1,024	1,024	1,024	1,024	1,024
% Change		-6.6%	-0.7%	1.8%	-13.1%	1.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	14,423	14,601	14,788	14,855	14,321	13,919	13,925	14,063	14,412	14,714	14,834	14,956
% Change		1.2%	1.3%	0.4%	-3.6%	-2.8%	-2.8%	1.0%	2.5%	2.1%	0.8%	0.8%

Source: Actuals from student profile.

Lowell: Enrollment by Residency

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
In State	11,501	11,835	12,127	12,170	11,554	11,138	11,004	11,115	11,411	11,666	11,760	11,856
% Change		2.9%	2.5%	0.4%	-5.1%	-3.6%	-4.8%	1.0%	2.7%	2.2%	0.8%	0.8%
Out of State	1,612	1,583	1,573	1,648	1,660	1,656	1,637	1,651	1,684	1,714	1,727	1,740
% Change		-1.8%	-0.6%	4.7%	0.8%	-0.3%	-1.4%	0.9%	2.0%	1.7%	0.8%	0.8%
International	1,310	1,183	1,088	1,037	1,107	1,125	1,284	1,297	1,316	1,334	1,347	1,360
% Change		-9.7%	-8.0%	-4.7%	6.8%	1.7%	16.1%	1.0%	1.5%	1.3%	1.0%	1.0%
Total	14,423	14,601	14,788	14,855	14,321	13,919	13,925	14,063	14,412	14,714	14,834	14,956
% Change		1.2%	1.3%	0.4%	-3.6%	-2.8%	-2.8%	1.0%	2.5%	2.1%	0.8%	0.8%

Source: Actuals from student profile.

Lowell: Enrollment by New v Continuing

Undergraduate Enrollment (FTEs)	Actual					Budget	Actual	Forecast					
	FY2018	FY2019	FY2020	FY2021	FY2022		FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	
New	2,884	3,029	3,223	2,845	2,515		2,413	2,502	2,579	2,716	2,804	2,893	2,981
% Change	7.9%	5.0%	6.4%	-11.7%	-11.6%		-4.1%	-0.5%	3.1%	5.3%	3.2%	3.2%	3.0%
Continuing	7,604	7,738	7,772	7,894	7,495		6,992	6,966	6,994	7,171	7,350	7,346	7,344
% Change	7.6%	1.8%	0.4%	1.6%	-5.1%		-6.7%	-7.0%	0.4%	2.5%	2.5%	-0.1%	0.0%
Undergraduate Total	10,488	10,767	10,995	10,739	10,010		9,405	9,469	9,573	9,887	10,154	10,239	10,325
% Change	7.7%	2.7%	2.1%	-2.3%	-6.8%		-6.0%	-5.4%	1.1%	3.3%	2.7%	0.8%	0.8%

Source: Actuals from student profile.

Lowell: Online Only

Career	Actual					Budget	Actual	Forecast				
	Students (FTEs)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Undergraduate	131	121	120	171	330	317	289	292	302	310	312	315
% Change		-7.5%	-1.1%	42.5%	93.1%	-3.9%	-12.5%	1.1%	3.3%	2.7%	0.8%	0.8%
Graduate	856	938	949	1,208	1,605	1,657	1,588	1,603	1,619	1,636	1,652	1,668
% Change		9.6%	1.2%	27.3%	32.8%	3.2%	-1.1%	1.0%	1.0%	1.0%	1.0%	1.0%
Continuing Ed	903	878	873	976	911	926	935	935	935	935	935	935
% Change		-2.7%	-0.6%	11.8%	-6.7%	1.6%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	1,890	1,937	1,942	2,356	2,846	2,900	2,811	2,830	2,856	2,880	2,899	2,918
% Change		2.5%	0.2%	21.3%	20.8%	1.9%	-1.2%	0.7%	0.9%	0.9%	0.7%	0.7%

Residency	Actual					Budget	Actual	Forecast				
	Students (FTEs)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
In State	1,200	1,235	1,254	1,493	1,794	1,828	1,821	1,832	1,849	1,866	1,877	1,888
% Change		2.9%	1.5%	19.1%	20.1%	1.9%	1.5%	0.6%	0.9%	0.9%	0.6%	0.6%
Out of State	543	541	521	614	685	698	629	633	638	642	646	651
% Change		-0.5%	-3.6%	17.9%	11.4%	1.9%	-8.1%	0.7%	0.7%	0.7%	0.7%	0.7%
International	147	162	167	248	367	374	362	365	369	372	376	380
% Change		10.1%	3.3%	48.1%	48.2%	2.0%	-1.5%	1.0%	1.0%	1.0%	1.0%	1.0%
Total	1,890	1,937	1,942	2,356	2,846	2,900	2,811	2,830	2,856	2,880	2,899	2,918
% Change		2.5%	0.2%	21.3%	20.8%	1.9%	-1.2%	0.7%	0.9%	0.9%	0.7%	0.7%

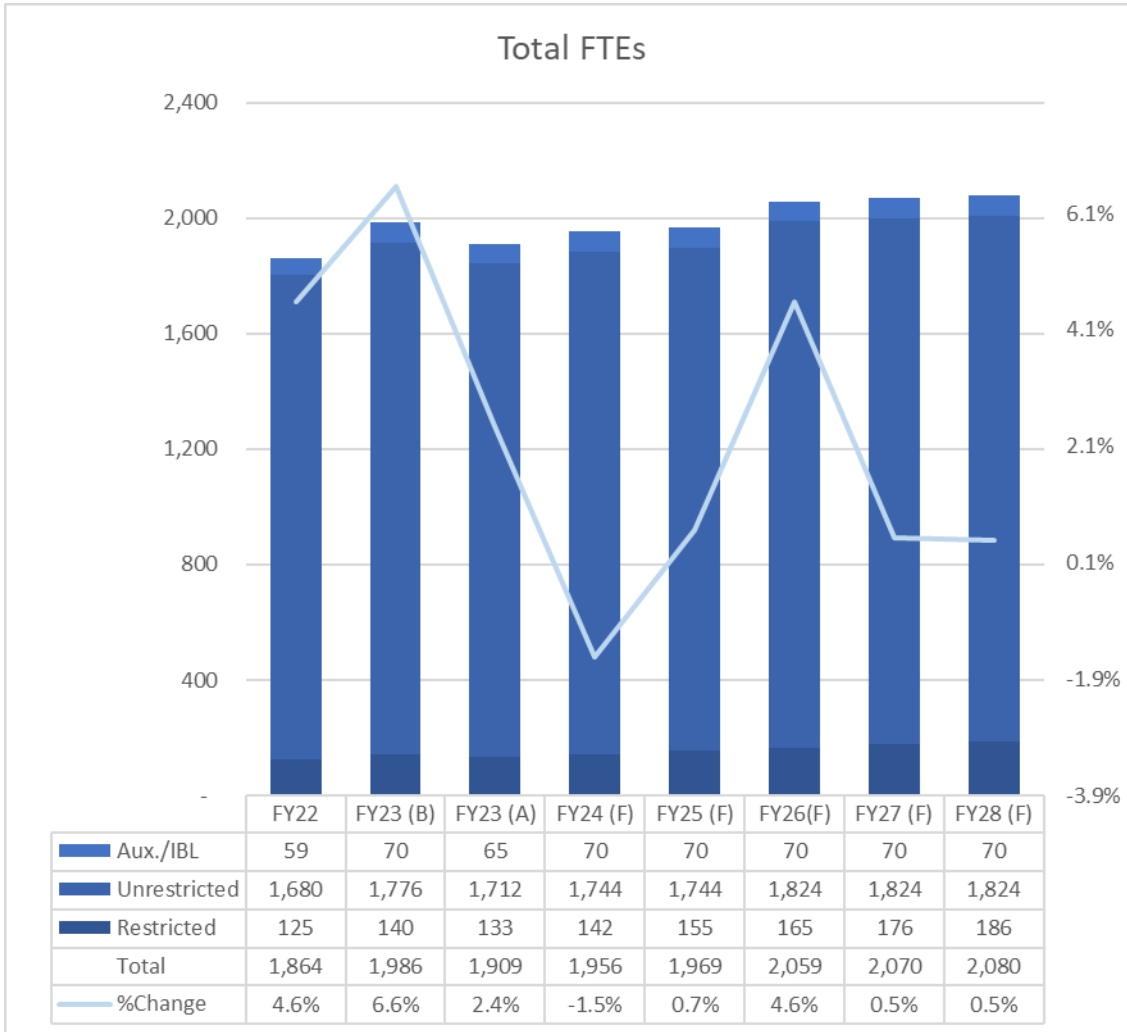
Source: Actuals from student profile.

Lowell: Staffing

Employee FTEs	Actual					Budget	Actual	Forecast					
	FY2018	FY2019	FY2020	FY2021	FY2022		FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	
Restricted													
Faculty	7	8	15	16	17		16	16	12	13	14	15	16
Staff	74	82	88	98	108		124	117	130	142	151	161	170
Total Restricted	81	91	102	114	125		140	133	142	155	165	176	186
# Change		9	11	12	11		15	8	2	13	10	11	10
% Change		11.4%	12.5%	11.8%	9.6%		12.1%	6.4%	1.4%	9.2%	6.5%	6.7%	5.7%
Unrestricted General University Ops													
Faculty	825	837	839	767	793		801	797	793	793	813	813	813
Staff	979	974	988	841	887		975	914	951	951	1,011	1,011	1,011
Executive/Admin/Managerial	63	70	74	68	69		-	149	-	-	-	-	-
Professional Nonfaculty	658	678	687	576	629		-	537	-	-	-	-	-
Secretarial/Clerical	52	50	51	35	41		-	77	-	-	-	-	-
Technical/Paraprofessional	68	67	67	62	59		-	55	-	-	-	-	-
Skilled Crafts	52	43	43	38	35		-	40	-	-	-	-	-
Service Maintenance Workers	86	65	66	62	54		-	55	-	-	-	-	-
Unspecified													
Total General University Ops	1,804	1,811	1,827	1,608	1,680		1,776	1,712	1,744	1,744	1,824	1,824	1,824
# Change		7	16	(218)	72		96	32	(32)	-	80	-	-
% Change		0.4%	0.9%	-12.0%	4.4%		5.7%	1.9%	-1.8%	0.0%	4.6%	0.0%	0.0%
Unrestricted Aux./Independent Business													
Faculty	-	-	-	-	-		-	-	-	-	-	-	-
Staff	40	75	71	60	59		70	65	70	70	70	70	70
Total Aux./Independent Business	40	75	71	60	59		70	65	70	70	70	70	70
# Change		35	(4)	(11)	(1)		11	6	-	-	-	-	-
% Change		87%	-5%	-15%	-2%		19%	10%	0%	0%	0%	0%	0%
Total Faculty & Staff	1,925	1,976	1,999	1,782	1,864		1,986	1,909	1,956	1,969	2,059	2,070	2,080
# Change		51	23	(217)	81		122	46	(30)	13	90	11	10
% Change		2.7%	1.2%	-10.9%	4.6%		6.6%	2%	-1.5%	0.7%	4.6%	0.5%	0.5%

Lowell: Staffing

Faculty & staff of 1,909 grows on average 0.9% over the forecast period.



Auxiliary / Independent

Business Lines: staff including housing & dining

Unrestricted: faculty & staff that support general university operations

Restricted: faculty & staff funded by grant & endowed funds

FTEs:	65
% of Total FTEs:	3%
Faculty % / Staff %:	0% / 100%
Forecast AAGR:	0.0%

FTEs:	1,712
% of Total FTEs:	90%
Faculty % / Staff %:	47% / 53%
Forecast AAGR:	0.6%

FTEs:	133
% of Total FTEs:	7%
Faculty % / Staff %:	12% / 88%
Forecast AAGR:	5.9%

Lowell: Staffing Ratios

	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Student - Faculty												
Student (FTE)	14,423	14,601	14,788	14,855	14,321	13,919	13,925	14,063	14,412	14,714	14,834	14,956
Faculty (FTE)	832	845	853	783	810	817	813	805	806	827	828	829
Student-Faculty Ratio	17.3	17.3	17.3	19.0	17.7	17.0	17.1	17.5	17.9	17.8	17.9	18.0
Staff - Faculty (All)												
Staff (FTE)	1,093	1,131	1,146	999	1,054	1,169	1,096	1,151	1,163	1,232	1,242	1,251
Faculty (FTE)	832	845	853	783	810	817	813	805	806	827	828	829
Staff-Faculty Ratio	1.3	1.3	1.3	1.3	1.3	1.4	1.3	1.4	1.4	1.5	1.5	1.5
Staff - Faculty (E&G)												
Staff (FTE)	979	974	988	841	887	975	914	951	951	1,011	1,011	1,011
Faculty (FTE)	825	837	839	767	793	801	797	793	793	813	813	813
Staff-Faculty Ratio (E&G)	1.2	1.2	1.2	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.2	1.2

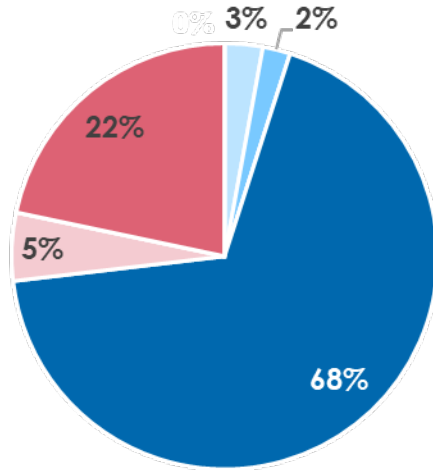
Lowell: Key Ratios

Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Operating Margin (%)	1.5%	1.3%	-0.6%	2.9%	0.9%	0.0%	0.7%	1.5%	2.0%	2.0%	2.0%	2.0%
Operating Margin (\$)	6,785	6,134	(2,700)	13,706	4,790	0	3,933	8,414	11,748	12,227	12,711	13,182
Operating Cash Flow Margin (%)	14.3%	14.7%	13.1%	16.9%	17.0%	15.7%	20.7%	15.3%	15.9%	15.8%	15.5%	15.0%
Operating Cash Flow Margin (\$)	64,009	69,416	61,776	78,130	87,461	81,098	115,475	82,716	90,216	93,186	95,342	95,736
Debt Service Burden (%)	7.4%	7.7%	6.8%	4.9%	6.6%	6.6%	9.0%	7.1%	6.4%	6.8%	6.4%	6.0%
Debt Service Coverage (x)	1.9	1.9	1.9	3.4	2.5	2.3	2.4	2.1	2.5	2.3	2.4	2.5
Financial Leverage (x)	0.37	0.36	0.38	0.52	0.45	0.62	0.58	0.60	0.56	0.56	0.58	0.60
Total Debt (\$ in thousands)	500,656	556,087	552,657	557,367	642,343	489,943	497,706	486,244	515,070	516,537	500,255	483,105
Total Cash & Investments to Op Expenses (x)	184,293	197,616	209,322	290,584	290,572	302,746	290,189	290,189	290,189	290,189	290,189	290,190
Enrollment	14,423	14,601	14,788	14,855	14,321	13,919	13,925	14,063	14,412	14,714	14,834	14,956
Enrollment (% Change)	3.7%	1.2%	1.3%	0.4%	-3.6%	-2.8%	-2.8%	1.0%	2.5%	2.1%	0.8%	0.8%

Lowell: 15 Projects; \$203M; 11% of Capital Plan

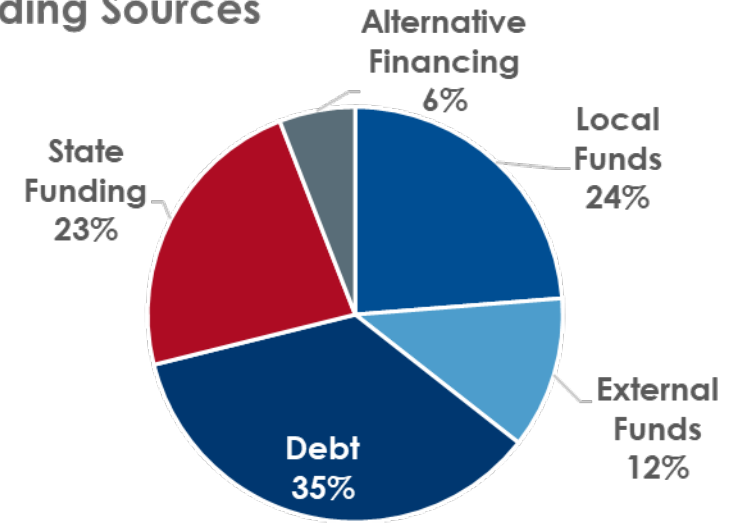
22% of Projects in Construction or Substantial Completion

Projects by Phase

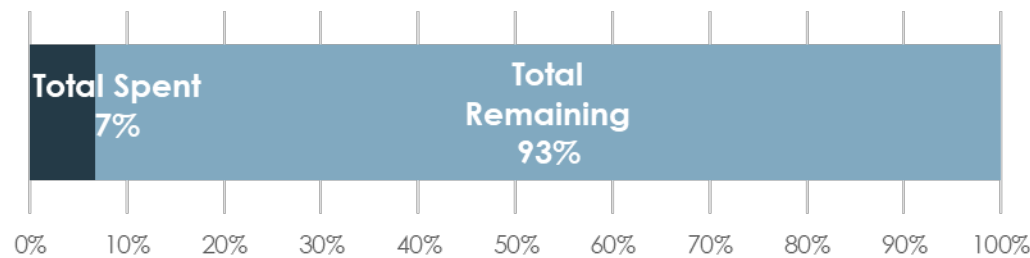


- 1 - Conceptual
- 2 - Feasibility Report
- 3 - OPM/Designer Procurement
- 4 - Study/Schematic Design
- 5 - Design
- 6 - Final Design/Early Constr. Pkgs.
- 7 - Construction
- 8 - Substantial Completion

Funding Sources



Project Spending



Lowell Projects: Board & President

Traditional Projects				
Project	Adjusted Cost (\$)	Project Phase	Status	
Ball Hall Comprehensive Renewal Phase I	30,000,000	4 - Study / Schematic Design	Authorized	
Olney Project A - Instructional Modernization	75,000,000	4 - Study / Schematic Design	Authorized	
Weed Hall Renewal Phase I	25,000,000	4 - Study / Schematic Design	Authorized	
Critical Repair - Olsen Strategic Renovations, Repairs and Replacements	22,745,756	7 - Construction	Approved	
Total	152,745,756			

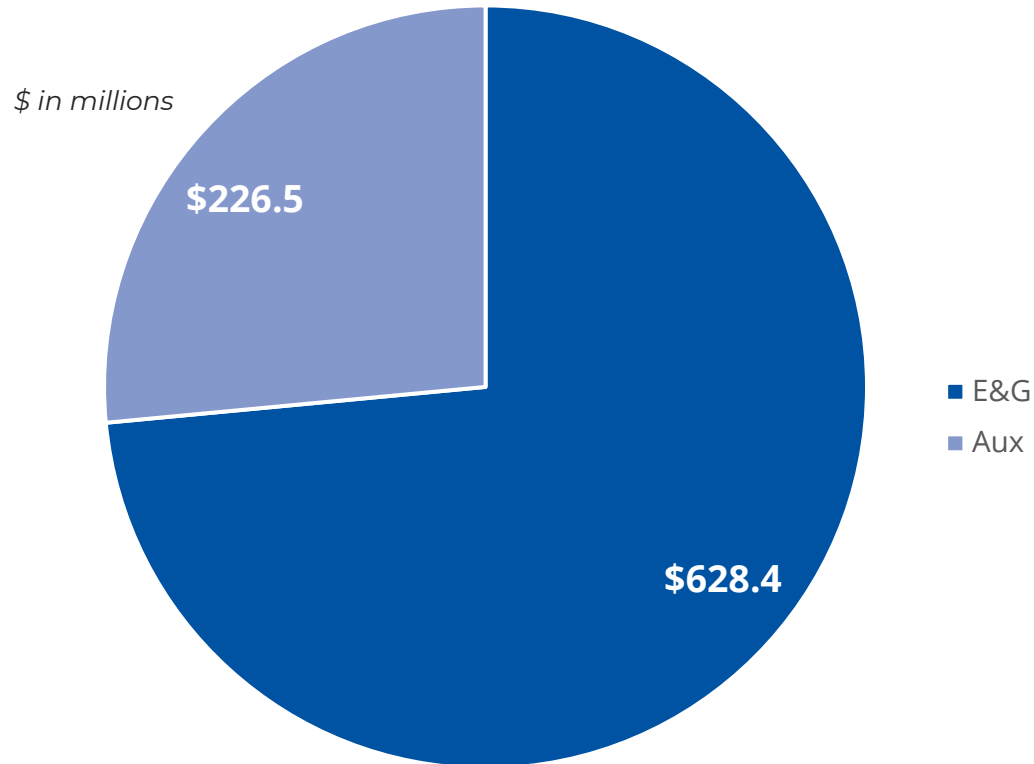
Alternative Finance & Delivery Projects	
Project	Adjusted Cost (\$)
Tsongas Center Annex	12,000,000
Total	12,000,000

President Projects				
Project	Adjusted Cost (\$)	Project Phase	Status	
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	
Dugan - Art & Design 3D Studio Renovation	3,000,000	5 - Design	Approved	
Durgin Concert Hall	2,000,000	5 - Design	Approved	
Olney Laser Lab	2,200,000	5 - Design	Approved	
Riverhawk Village Centralize Water Heaters	2,650,000	5 - Design	Approved	
Critical Repair Tsongas HVAC	9,500,000	7 - Construction	Approved	
Pinanski Radiation Physics Lab	2,000,000	7 - Construction	Approved	
Southwick Lowell Advanced Robotics Initiative (LARI), Math & Chem E	7,125,000	7 - Construction	Approved	
Total	37,975,000			

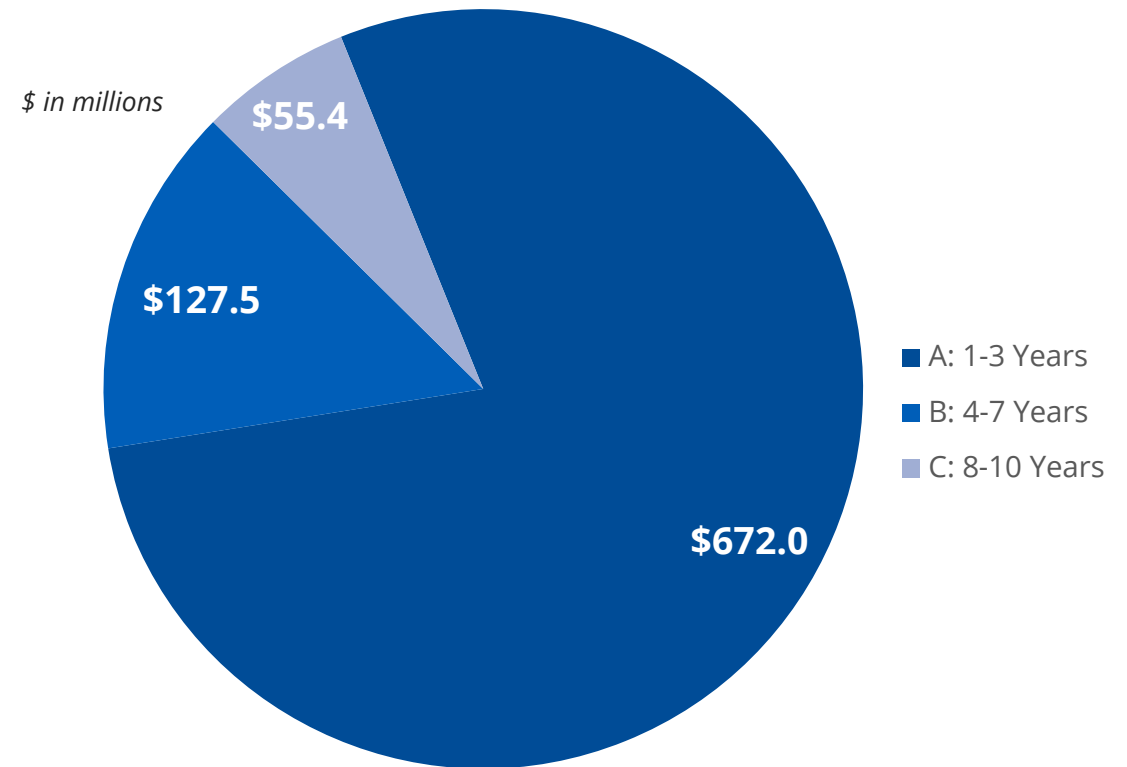
Lowell: Deferred Maintenance

\$854.9 Million Backlog Coming Due in the Next 10 Years

\$854.9M: E&G vs. AUX



\$854.9M: By Timeframe



Lowell: Deferred Maintenance

\$854.9 Million Backlog Coming Due in the Next 10 Years

By Package

Building Package	Project Cost (\$ millions)
Building Systems	411.4
Space Improvement	196.4
Building Envelope	118.4
Infrastructure	68.1
Safety/Code	60.5
Total	854.9

By System

Building System	Project Cost (\$ millions)
Interior Shell	190.9
Plumbing	153.0
Exterior Shell	120.0
HVAC	119.5
Electrical	95.9
Safety/Code	58.9
Heating	42.1
Grounds	40.8
Cooling	22.9
Mechanical	11.0
Total	854.9

Top 10 Building Needs

Building	Project Cost (\$ millions)
Olney	124.7
Ball Hall	75.0
Fox Hall	69.5
Olsen	47.7
Campus	41.8
Tsongas Center	29.4
Weed Hall	26.5
Costello Gymnasium	26.5
River Hawk Village	25.7
Concordia	25.5
Total	492.3

Lowell: Deferred Maintenance Dashboard (v1.0)- Annual Investment

FY22 Keep Up
\$6.4 M

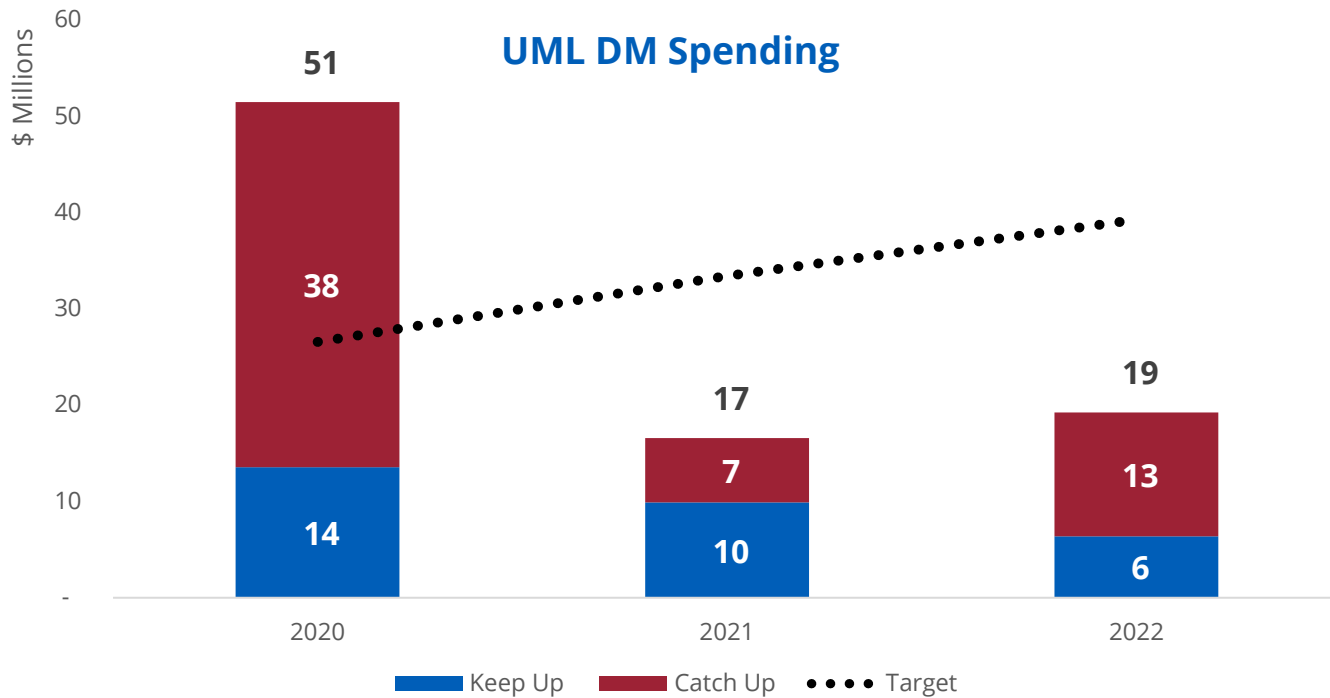
FY22 Keep Up
\$39.3 M

FY22 % Target
16.3%

FY22 Catch Up
\$12.9 M

FY22 Catch Up
TBD

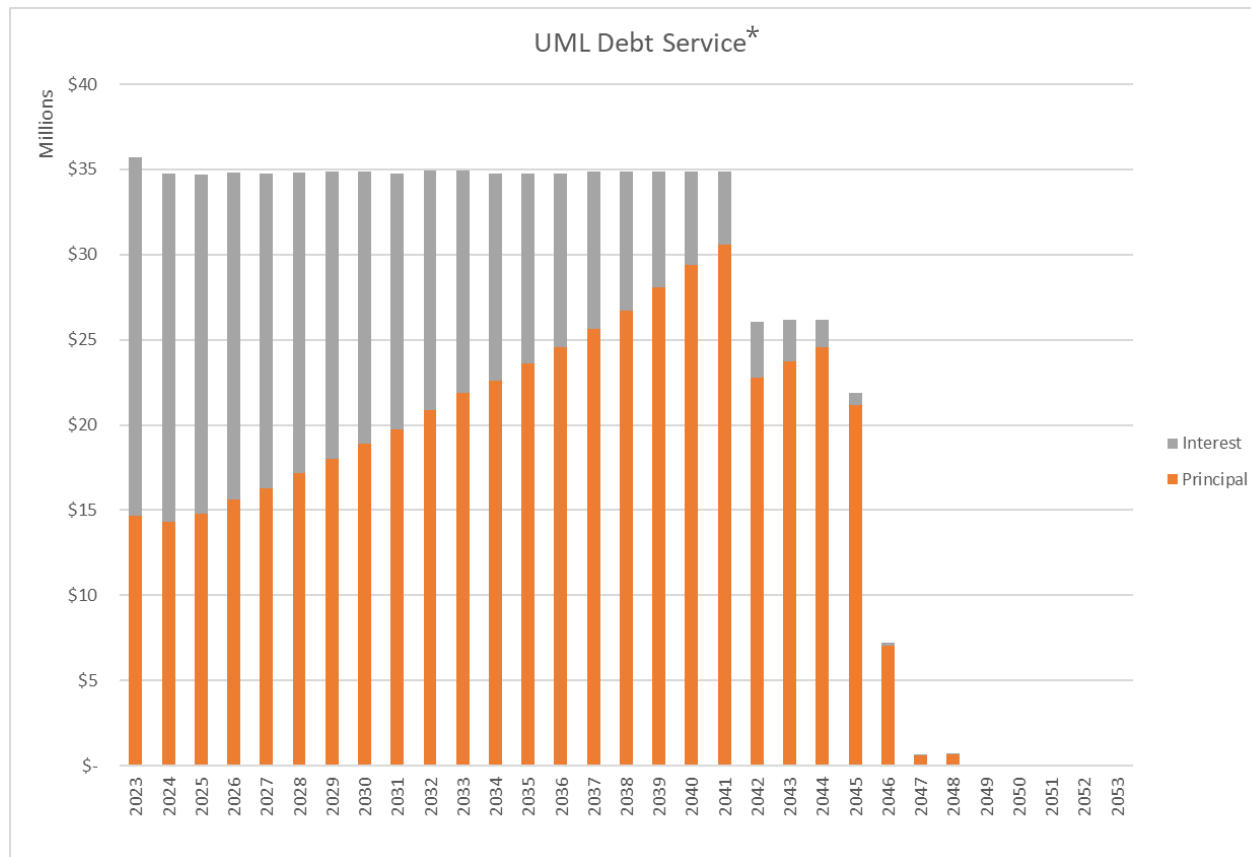
FY22 % Target
N/A



Lowell: Deferred Maintenance - Annual Investment

<i>\$ in thousands</i>	FY24	FY25	FY26	FY27	FY28
Keep Up					
Target	41,138	42,230	43,402	44,704	45,958
Depreciation	57,260	55,339	56,905	59,212	59,057
- Principal Payment	14,287	14,802	15,617	16,282	17,150
= Available Keep Up	42,973	40,537	41,288	42,930	41,907
Forecast Spend	27,000	30,000	45,000	46,000	50,000
% of Target	63%	71%	104%	103%	109%
Catch Up					
Target (15 yrs)	56,992	56,992	56,992	56,992	56,992
Forecast Spend	30,000	71,000	31,000	35,000	35,000
% of Target	53%	125%	55%	61%	61%
Debt Service Burden	7.1%	6.4%	6.8%	6.4%	6.0%

- **Keep-Up:** targets established by Gordian meant to ensure investments sufficient to prevent backlog from growing
- **Depreciation:** (non-cash expenses) budgeted as a proxy to cover debt service; additional amount beyond debt payment available for keep up
- **Catch Up:** estimated 15 years to address backlog through major capital projects and one-time sources like State grants and borrowing



Key Ratio	Actual					Budget Q1 Projection		Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Debt Service Burden (%)	7.4%	7.7%	6.8%	4.9%	6.6%	6.6%	9.0%	7.1%	6.4%	6.8%	6.4%	6.0%
Debt Service Coverage (x)	1.9	1.9	1.9	3.4	2.5	2.2	2.4	2.1	2.5	2.3	2.4	2.5
Financial Leverage (x)	0.37	0.36	0.38	0.52	0.45	0.62	0.58	0.60	0.56	0.56	0.58	0.60
Total Debt (\$ in thousands)	500,656	556,087	552,657	557,367	642,343	489,943	497,706	486,244	515,070	516,537	500,255	483,105

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.



Chan Medical School FY24-28 Forecast: By the Numbers

Revenue & Expenses:



FY23 Budget:	AAGR:	Rev	Exp
Total: \$986.8M	FY24-28: 5.5%	5.6%	
	FY21-23: 2.4%	2.7%	
	FY18-20: -2.4%	-1.7%	



Tuition Annual Increases:

- All Rates: 2.5%

Salary Annual Increases:

- 2.5% consistent with all campuses

Operating Margin:

FY23 Budget:	Average:
2.0%	FY24-28: 2.0%
	FY21-23: 2.3%
	FY18-20: 2.9%



Independent Business Lines:

No restructuring to MassBiologics or Commonwealth Medicine

Enrollment:

FY23 Actual:	AAGR:
FTEs: 1,301	FY24-28: 2.7%
	FY21-23: 2.9%
	FY18-20: 3.8%



Employees:

FY23 Budget:	AAGR:
Total: 3,812	FY24-28: 3.7%
	FY21-23: 1.2%
	FY18-20: 1.4%



Capital and Deferred Maintenance:

No new borrowing/reserves

\$503 million FY22-26 capital plan

\$660 million deferred maintenance

- (13% of replacement value FY21 (24% University))

Chan Medical School: Revenue & Expenses

(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY24-28		
	FY2018	FY2019	FY2020	FY2021	FY2022		FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Annual	
Gross Tuition & Fees	28,609	34,681	37,769	38,823	39,826		42,071	42,890	47,076	50,747	55,380	60,212	63,485	34.9%	8.6%
Tuition Discounts	(3,320)	(4,235)	(5,139)	(4,204)	(4,664)		(6,409)	(7,051)	(7,877)	(8,491)	(9,267)	(10,075)	(10,623)	34.9%	10.8%
Discount Rate	11.6%	12.2%	13.6%	29.2%	11.7%		15.2%	16.4%	16.7%	16.7%	16.7%	16.7%	16.7%	0.0%	2.0%
Net Tuition & Fees	25,289	30,446	32,630	34,619	35,162		35,662	35,839	39,199	42,256	46,113	50,137	52,862	34.9%	8.2%
Grants	269,721	286,603	280,279	348,461	355,915		329,031	331,031	385,528	425,125	466,384	490,591	516,986	34.1%	9.5%
Sales & Service, Educational	14,023	15,023	17,190	17,574	26,781		21,692	23,448	24,034	24,635	25,251	25,882	26,529	10.4%	4.2%
Auxiliary Enterprises	30,797	31,561	32,675	31,249	36,301		39,850	40,544	43,937	45,004	46,098	47,220	48,370	10.1%	4.0%
Other Operating	268,909	183,268	194,723	166,678	221,582		179,470	209,205	198,491	204,599	205,566	206,174	206,377	4.0%	2.9%
State Appropriations	54,560	57,959	57,396	57,686	60,392		59,297	66,737	64,898	67,127	69,417	71,767	74,180	14.3%	4.6%
Other NonOperating	27,800	32,008	26,059	23,793	29,229		32,602	35,913	38,634	40,348	40,716	43,345	45,923	18.9%	7.3%
Independent Business Lines	274,555	266,509	280,620	311,262	251,782		289,220	288,067	299,164	294,007	300,298	307,838	315,533	5.5%	1.8%
Total Revenues	965,654	903,377	921,572	991,322	1,017,143		986,824	1,030,784	1,093,885	1,143,101	1,199,843	1,242,954	1,286,760	17.6%	5.5%
% Growth	-2.7%	-6.4%	2.0%	7.6%	2.6%		-3.0%	1.3%	10.8%	4.5%	5.0%	3.6%	3.5%		
Expenses															
Salaries & Fringe	416,112	433,752	438,008	431,173	503,785		522,583	548,470	580,206	604,613	637,146	662,671	689,778	18.9%	5.7%
Non-personnel	435,266	343,729	369,200	451,230	414,033		335,078	356,891	380,543	396,133	417,272	432,553	447,375	17.6%	6.0%
Scholarships & Fellowships	-	-	-	-	-		-	-	-	-	-	-	-		
Depreciation	65,013	64,722	65,478	67,213	66,226		68,380	69,794	77,269	86,792	89,329	91,867	94,305	22.0%	6.7%
Interest	26,753	24,830	19,256	18,108	23,632		34,835	35,207	32,407	31,359	30,428	29,373	28,225	-12.9%	-4.1%
Total Expenses	943,144	867,033	891,942	967,724	1,007,677		960,876	1,010,362	1,070,425	1,118,897	1,174,175	1,216,464	1,259,683	17.7%	5.6%
% Growth	0.1%	-8.1%	2.9%	8.5%	4.1%		-4.6%	0.3%	11.4%	4.5%	4.9%	3.6%	3.6%		
Operating Margin															
UMass OM Calc Revenues	964,299	898,882	919,648	995,455	1,029,573		980,427	1,030,784	1,091,736	1,141,176	1,198,019	1,241,114	1,284,880		
Total Expenses	943,144	867,033	891,942	967,724	1,007,677		960,876	1,010,362	1,070,425	1,118,897	1,174,175	1,216,464	1,259,683		
Surplus / (Deficit)	21,155	31,849	27,706	27,731	21,896		19,551	20,422	21,311	22,279	23,844	24,650	25,197		
UMass OM Calc	2.2%	3.5%	3.0%	2.8%	2.1%		2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%		

Commonwealth Medicine: Revenue & Expenses

(\$ in Thousands)

Revenues	Actual	Budget	Q1 Projection	Forecast					% Change FY24-28	
	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Annual
Total Revenues	199,651	205,950	207,684	213,139	218,510	224,029	229,670	235,369	10.4%	2.7%
% Growth		3.2%	4.0%	3.5%	2.5%	2.5%	2.5%	2.5%		
Expenses										
Total Expenses	185,075	195,183	196,682	201,598	206,638	211,804	217,098	222,527	10.4%	2.7%
% Growth		5.5%	6.3%	3.3%	2.5%	2.5%	2.5%	2.5%		
Operating Margin										
UMass OM Calc Revenues	199,651	205,950	207,684	213,139	218,510	224,029	229,670	235,369		
Total Expenses	185,075	195,183	196,682	201,598	206,638	211,804	217,098	222,527		
Surplus / (Deficit)	14,576	10,767	11,002	11,541	11,872	12,225	12,572	12,842		
UMass OM Calc	7.3%	5.2%	5.3%	5.4%	5.4%	5.5%	5.5%	5.5%		

MassBiologics: Revenue & Expenses

(\$ in Thousands)

Revenues	Actual	Budget	Q1 Projection	Forecast					% Change FY24-28	
	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Annual
Total Revenues	61,240	63,327	62,445	61,646	58,138	58,899	60,438	61,985	0.5%	-0.4%
% Growth		3.4%	2.0%	-2.7%	-5.7%	1.3%	2.6%	2.6%		
Expenses										
Total Expenses	70,369	76,327	69,862	68,555	58,021	58,771	60,280	61,797	-9.9%	-3.8%
% Growth		8.5%	-0.7%	-10.2%	-15.4%	1.3%	2.6%	2.5%		
Operating Margin										
UMass OM Calc Revenues	61,240	63,327	62,445	61,646	58,138	58,899	60,438	61,985		
Total Expenses	70,369	76,327	69,862	68,555	58,021	58,771	60,280	61,797		
Surplus / (Deficit)	(9,129)	(13,000)	(7,417)	(6,909)	117	128	158	188		
UMass OM Calc		-20.5%	-11.9%	-11.2%	0.2%	0.2%	0.3%	0.3%		

Chan Medical School: Enrollment by Career

<u>AAGR:</u>	<u>Total:</u>
FY24-28:	2.7
FY21-23:	2.9
FY18-20:	3.8

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Graduate	1,074	1,153	1,195	1,242	1,246	1,257	1,301	1,325	1,363	1,413	1,463	1,488
% Change		7.3%	3.7%	3.9%	0.3%	0.9%	4.4%	1.8%	2.9%	3.7%	3.5%	1.7%
Total	1,074	1,153	1,195	1,242	1,246	1,257	1,301	1,325	1,363	1,413	1,463	1,488
% Change		7.3%	3.7%	3.9%	0.3%	0.9%	4.4%	1.8%	2.9%	3.7%	3.5%	1.7%

Source: Actuals from student profile.

Chan Medical School: Enrollment by Residency

Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022			FY2023	FY2024	FY2025	FY2026	FY2027
In State	768	788	791	813	788	795	822	807	807	807	807	807
% Change		2.6%	0.3%	2.8%	-3.1%	0.9%	4.3%	-1.8%	0.0%	0.0%	0.0%	0.0%
Out of State	172	239	282	319	340	344	367	400	438	488	538	563
% Change		39.1%	17.9%	13.3%	6.6%	1.3%	7.9%	9.0%	9.5%	11.4%	10.2%	4.6%
International	134	125	123	110	118	118	112	118	118	118	118	118
% Change		-6.6%	-1.9%	-10.6%	7.0%	0.0%	-4.8%	5.4%	0.0%	0.0%	0.0%	0.0%
Total	1,074	1,153	1,195	1,242	1,246	1,257	1,301	1,325	1,363	1,413	1,463	1,488
% Change		7.3%	3.7%	3.9%	0.3%	0.9%	4.4%	1.8%	2.9%	3.7%	3.5%	1.7%

Source: Actuals from student profile.

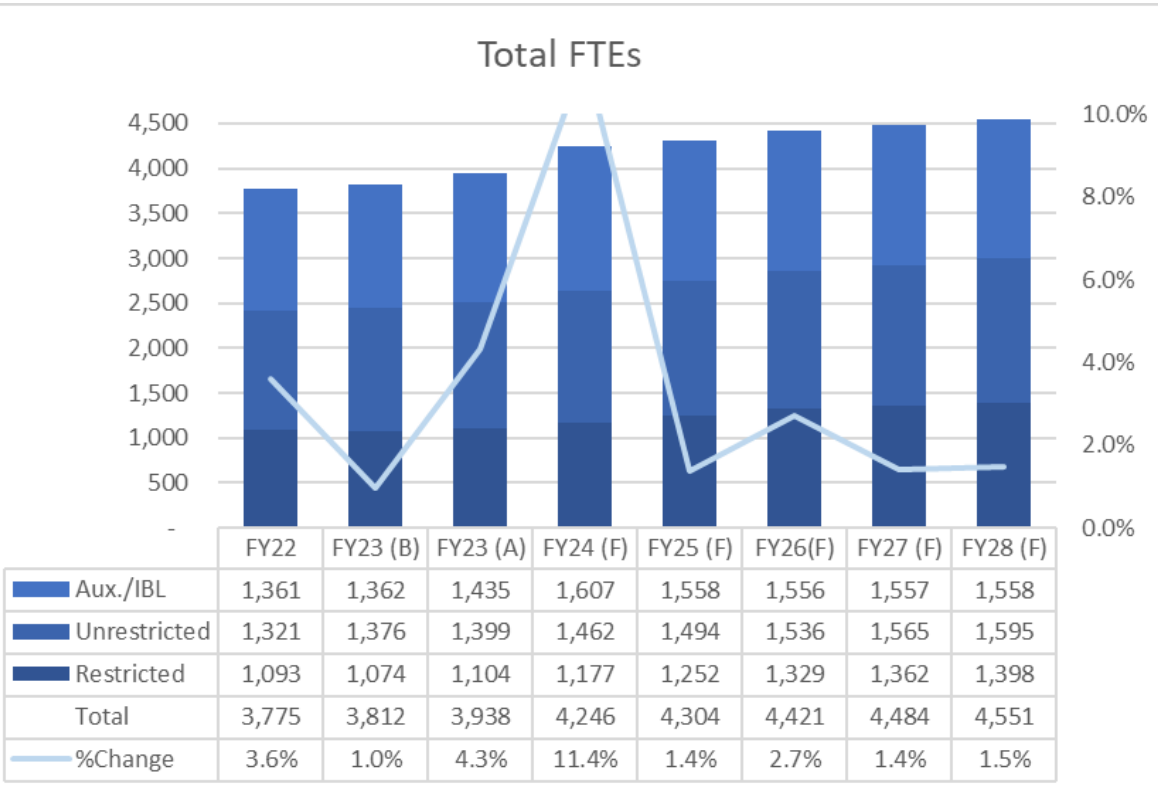
Chan Medical School: Staffing

Employee FTEs	Actual					Budget Actual		Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Restricted												
Faculty	239	250	243	241	252	247	248	271	288	306	314	322
Staff	852	854	876	855	842	827	856	906	964	1,023	1,048	1,076
Total Restricted	1,091	1,104	1,118	1,096	1,093	1,074	1,104	1,177	1,252	1,329	1,362	1,398
# change		13	14	(23)	(2)	(19)	11	103	75	77	33	36
% change		1.2%	1.3%	-2.0%	-0.2%	-1.8%	1.0%	9.6%	6.4%	6.2%	2.5%	2.6%
Unrestricted General University Ops												
Faculty	220	216	211	221	237	271	271	288	294	302	308	314
Staff	1,009	1,018	1,024	996	1,084	1,105	1,128	1,174	1,200	1,234	1,257	1,281
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	1,321	1,376	1,399	1,462	1,494	1,536	1,565	1,595
# change		5	1	(17)	104	55	78	86	32	42	29	30
% change		0.4%	0.0%	-1.4%	8.5%	4.2%	5.9%	6.3%	2.2%	2.8%	1.9%	1.9%
*Unrestricted Aux./Independent Business												
Faculty	15	13	10	11	12	12	10	14	14	14	14	14
Staff	1,241	1,302	1,316	1,320	1,349	1,350	1,425	1,593	1,544	1,542	1,543	1,544
Total Aux./Independent Business	1,256	1,315	1,326	1,331	1,361	1,362	1,435	1,607	1,558	1,556	1,557	1,558
# change		58	11	5	30	1	74	245	(49)	(2)	1	1
% change		4.7%	0.8%	0.4%	2.2%	0.1%	5.5%	18.0%	-3.0%	-0.1%	0.1%	0.1%
Total Faculty & Staff	3,576	3,653	3,679	3,644	3,775	3,812	3,938	4,246	4,304	4,421	4,484	4,551
# change		76	26	(35)	131	37	163	434	58	117	63	67
% change		2.1%	0.7%	-0.9%	3.6%	1.0%	4.3%	11.4%	1.4%	2.7%	1.4%	1.5%

*FTE increase in Independent Business Lines is due to correction between payroll and non-payroll for Commonwealth Medicine, based on accounting of certain contracts that was incorrect in the budget

Chan Medical School: Staffing

Faculty & staff of 3,938 grows on average 3.7% over the forecast period.



Auxiliary / Independent

Business Lines: staff

including housing & dining

Unrestricted: faculty & staff

that support general university operations

Restricted: faculty & staff funded by grant & endowed funds

FTEs:	1,435
% of Total FTEs:	36%
Faculty % / Staff %:	1% / 99%
Forecast AAGR:	3.0%

FTEs:	1,399
% of Total FTEs:	36%
Faculty % / Staff %:	19% / 81%
Forecast AAGR:	3.0%

FTEs:	1,104
% of Total FTEs:	28%
Faculty % / Staff %:	22% / 78%
Forecast AAGR:	5.4%

Chan Medical School: Staffing Ratios

	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Student - Faculty												
Student (FTE)	1,074	1,153	1,195	1,242	1,246	1,257	1,301	1,325	1,363	1,413	1,463	1,488
Faculty (FTE)	473	479	463	473	501	530	529	573	596	622	636	650
Student-Faculty Ratio	2.3	2.4	2.6	2.6	2.5	2.4	2.5	2.3	2.3	2.3	2.3	2.3
Staff - Faculty (All)												
Staff (FTE)	3,103	3,174	3,215	3,170	3,275	3,282	3,409	3,673	3,708	3,799	3,848	3,901
Faculty (FTE)	473	479	463	473	501	530	529	573	596	622	636	650
Staff-Faculty Ratio	6.6	6.6	6.9	6.7	6.5	6.2	6.4	6.4	6.2	6.1	6.1	6.0
Staff - Faculty (E&G)												
Staff (FTE)	1,009	1,018	1,024	996	1,084	1,105	1,128	1,174	1,200	1,234	1,257	1,281
Faculty (FTE)	220	216	211	221	237	271	271	288	294	302	308	314
Staff-Faculty Ratio (E&G)	4.6	4.7	4.9	4.5	4.6	4.1	4.2	4.1	4.1	4.1	4.1	4.1

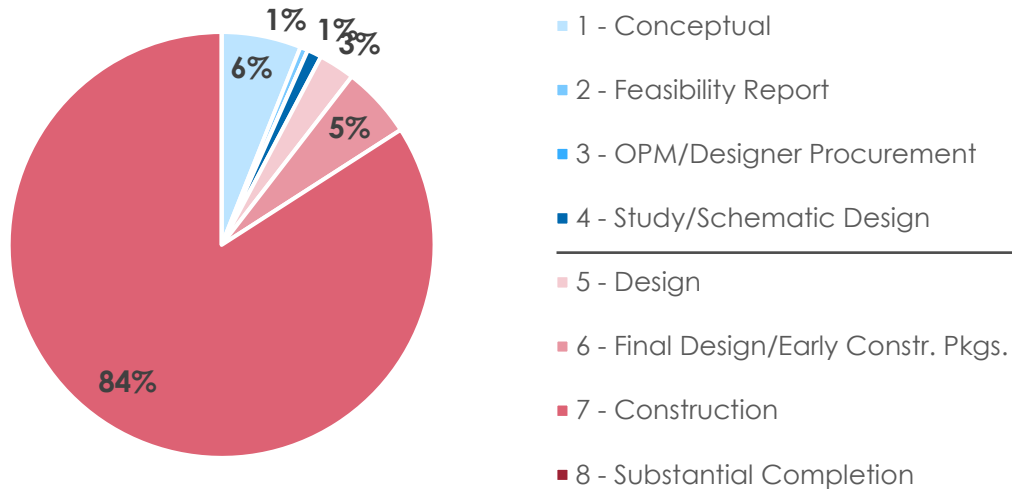
Chan Medical School: Key Ratios

Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Operating Margin (%)	2.2%	3.5%	3.0%	2.8%	2.1%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Operating Margin (\$)	21,155	31,849	27,706	27,731	21,896	19,551	20,422	21,311	22,279	23,844	24,650	25,197
Operating Cash Flow Margin (%)	11.5%	13.7%	12.6%	11.3%	11.5%	13.5%	11.6%	12.5%	12.6%	12.0%	11.5%	11.1%
Operating Cash Flow Margin (\$)	110,201	123,144	116,120	112,825	119,654	133,920	118,651	137,193	144,311	143,215	142,868	142,630
Debt Service Burden (%)	5.1%	5.5%	4.9%	2.0%	5.1%	7.0%	7.1%	7.1%	6.8%	5.7%	5.5%	5.4%
Debt Service Coverage (x)	2.3	2.6	2.7	5.8	2.3	2.0	1.6	1.8	1.9	2.1	2.1	2.1
Financial Leverage (x)	0.83	0.98	0.84	1.15	0.95	0.91	0.82	0.84	0.95	1.07	1.17	1.30
Total Debt (\$ in thousands)	590,265	536,644	603,933	639,298	924,853	856,423	889,075	844,683	799,778	763,238	725,178	685,763
Total Cash & Investments to Op Expenses (x)	0.52	0.61	0.57	0.76	0.87	0.81	0.73	0.66	0.68	0.70	0.70	0.71
Enrollment	1,074	1,153	1,195	1,242	1,246	1,257	1,301	1,325	1,363	1,413	1,463	1,488
Enrollment (% Change)	0.4%	7.3%	3.7%	3.9%	0.3%	0.9%	4.4%	1.8%	2.9%	3.7%	3.5%	1.7%

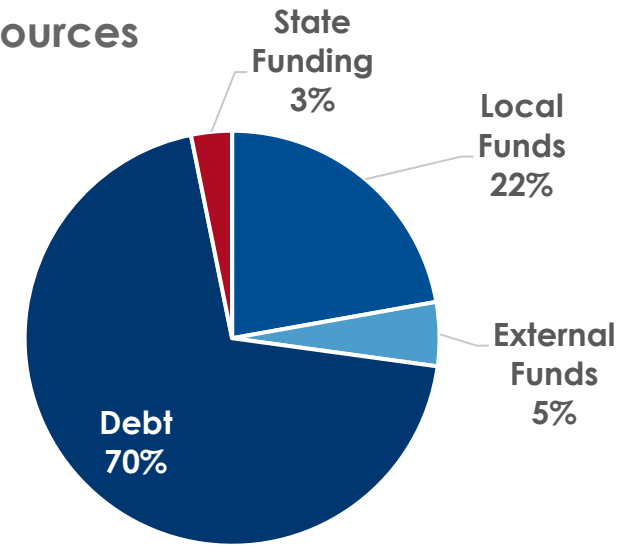
Chan Medical School: 19 Projects; \$503M; 26% of Capital Plan

83% of Projects in Construction or Substantial Completion

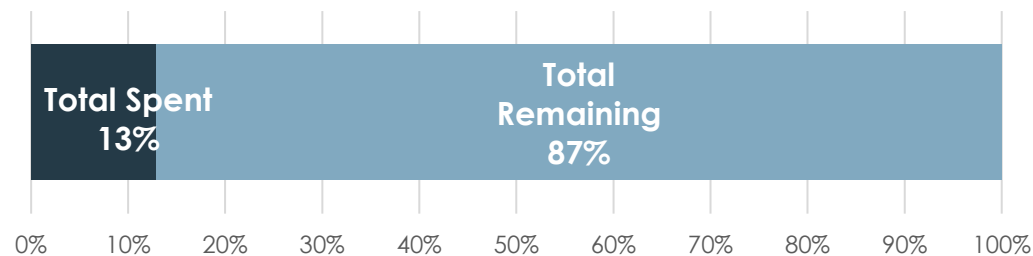
Projects by Phase



Funding Sources



Project Spending



Chan Medical School Projects: Board & President

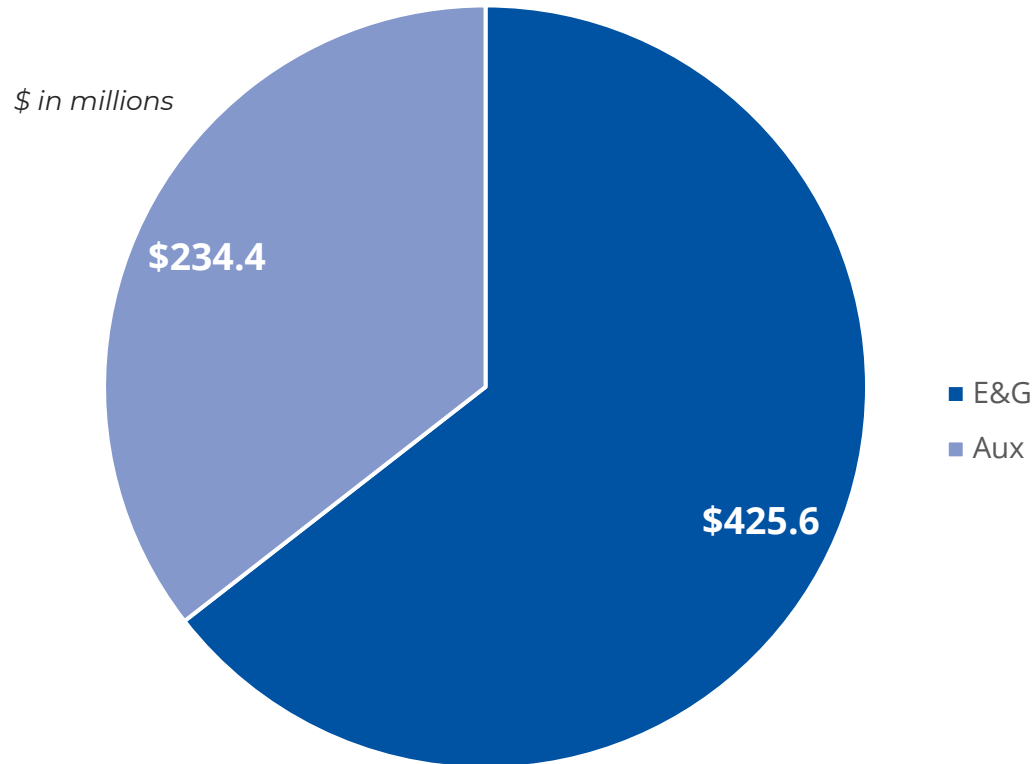
Traditional Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
Departmental equipment purchases	10,000,000	1 - Conceptual	Authorized
Parking Lot Maintenance - Main Campus	10,840,000	1 - Conceptual	Authorized
Library repurposing and renovations	5,500,000	4 - Study / Schematic Design	Authorized
New Education and Research Facility	350,000,000	7 - Construction	Approved
Power Plant Expansion	50,000,000	7 - Construction	Approved
Total	426,340,000		

President Projects			
Project	Adjusted Cost (\$)	Project Phase	Status
Fall River MBL CGMP Upgrades	9,500,000	1 - Conceptual	Authorized
Enhance chilled water loop pump/controls	3,000,000	2 - Feasibility Report	Authorized
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
Gnotobiotics Core (LRB)	3,000,000	5 - Design	Approved
Basic Wing Restroom Upgrade (14 Rooms)	3,000,000	6 - Final Design / Early Construction Packages	Approved
Clinical Wing Renovation - 4th Phase (2nd Floor)	7,000,000	6 - Final Design / Early Construction Packages	Approved
Clinical Wing Restroom Upgrades (14 Rooms)	3,000,000	6 - Final Design / Early Construction Packages	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
Basic Wing Substations, Risers and Electrical Room Replacements	8,300,000	7 - Construction	Approved
Clinical Wing Substations, Risers and Electrical Room Replacements	8,300,000	7 - Construction	Approved
Install Chiller 6	6,000,000	7 - Construction	Approved
Total	76,200,000		

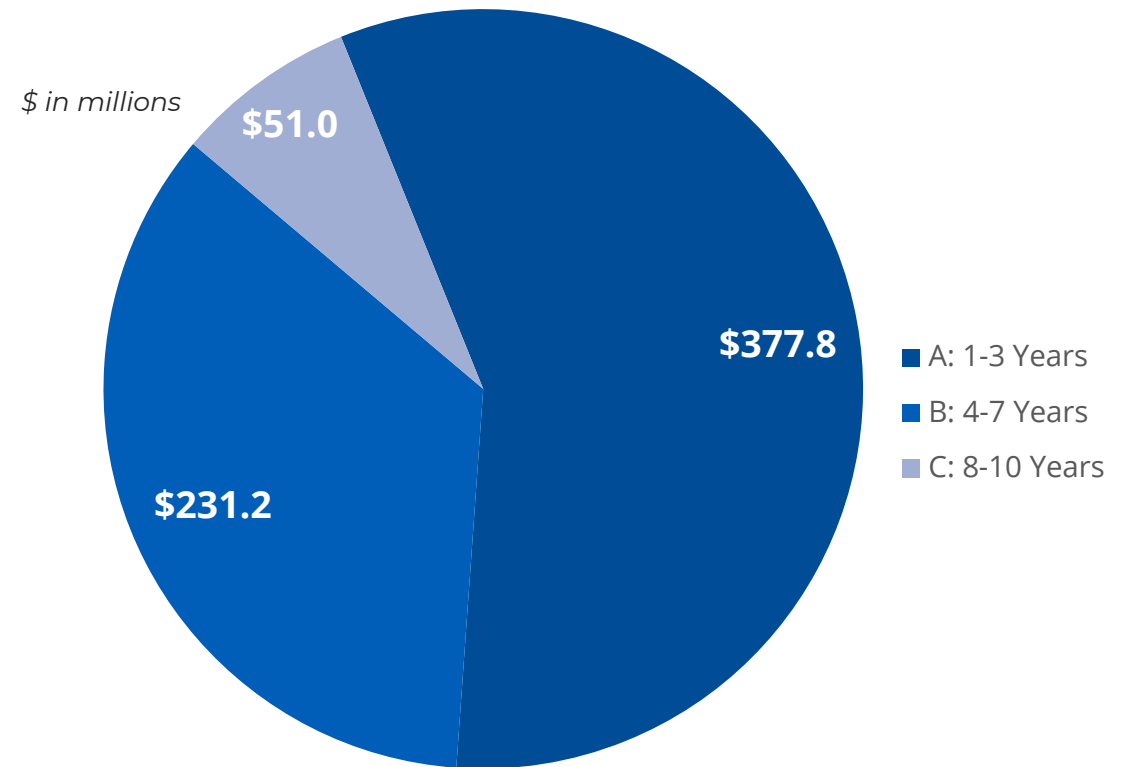
Chan Medical School: Deferred Maintenance

\$660.0 Million Backlog Coming Due in the Next 10 Years

\$660.0M: E&G vs. AUX



\$660.0M: By Timeframe



Chan Medical School: Deferred Maintenance

\$660.0 Million Backlog Coming Due in the Next 10 Years

By Package

Building Package	Project Cost (\$ millions)
Building Systems	350.4
Infrastructure	142.9
Space Improvement	87.1
Safety/Code	46.1
Building Envelope	33.5
Total	660.0

By System

Building System	Project Cost (\$ millions)
HVAC	152.6
Electrical	120.2
Heating	68.3
Cooling	68.0
Safety/Code	49.5
Renovation	44.4
Plumbing	40.2
Mechanical	33.7
Exterior Shell	33.4
Grounds	26.2
Total	660.0

Top 10 Building Needs

Building	Project Cost (\$ millions)
Medical School	235.7
Power Plant	123.5
Teaching Hospital	98.1
Lazare Research Building	30.6
South Street	25.6
Biotech Two	23.9
Biotech Five	16.4
Biotech Three	16.0
Grounds	14.6
Lakeside Addition	13.0
Total	597.4

Chan Medical School: Deferred Maintenance Dashboard (v1.0)- Annual Investment*

FY21 Keep Up
\$17.5 M

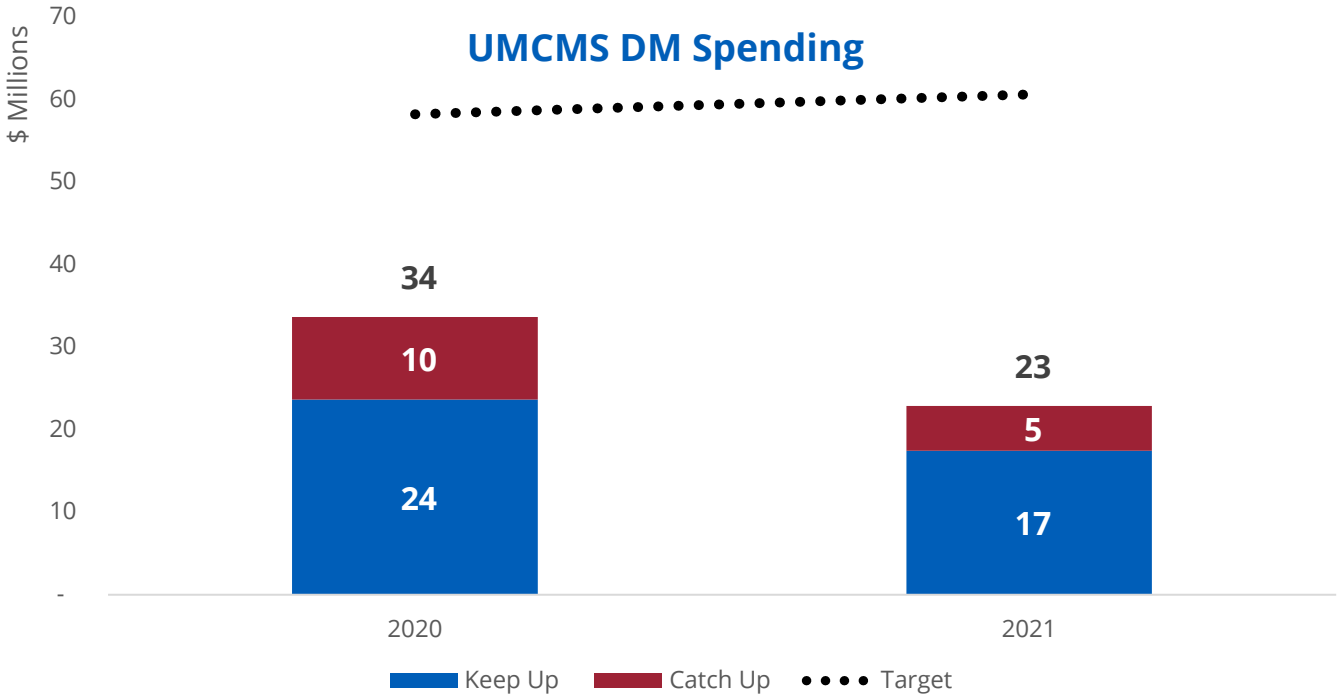
FY21 Keep Up
\$60.6 M

FY21 % Target
28.9%

FY21 Catch Up
\$5.4 M

FY21 Catch Up
TBD

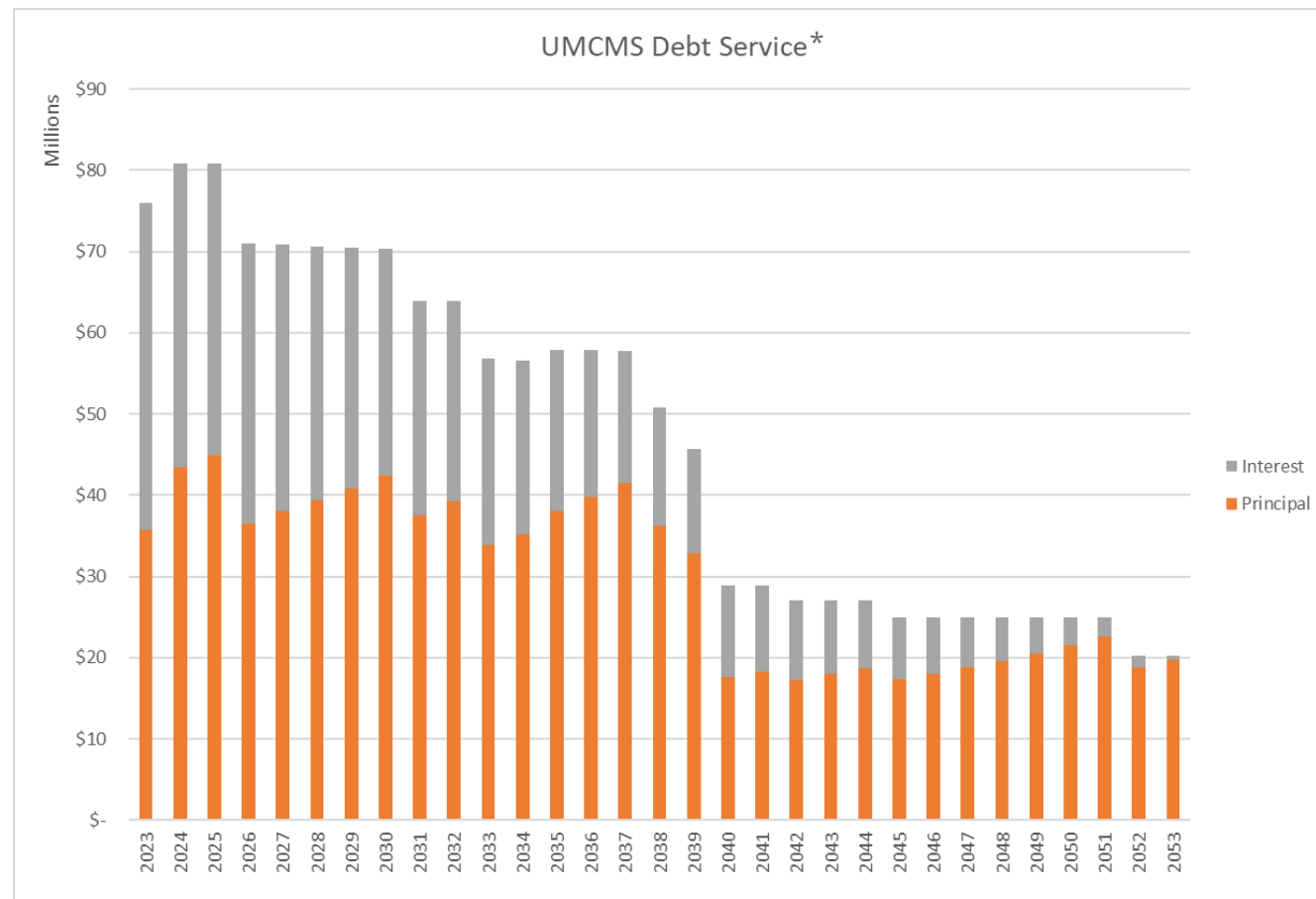
FY21 % Target
N/A



Chan Medical School: Deferred Maintenance - Annual Investment

<i>\$ in thousands</i>	FY24	FY25	FY26	FY27	FY28
Keep Up					
Target	70,728	71,866	73,445	75,634	76,054
Depreciation	77,269	86,792	89,329	91,867	94,305
- Principal Payment	43,425	44,905	36,540	38,059	39,415
= Available Keep Up	33,844	41,887	52,789	53,808	54,890
Forecast Spend	48,300	48,300	48,300	48,300	48,300
% of Target	68%	67%	66%	64%	64%
Catch Up					
Target (15 yrs)	44,000	44,000	44,000	44,000	44,000
Forecast Spend	12,000	12,240	12,485	12,734	12,989
% of Target	27%	28%	28%	29%	30%
Debt Service Burden	7.1%	6.8%	5.7%	5.5%	5.4%

- **Keep-Up:** targets established by Gordian meant to ensure investments sufficient to prevent backlog from growing
- **Depreciation:** (non-cash expenses) budgeted as a proxy to cover debt service; additional amount beyond debt payment available for keep up
- **Catch Up:** estimated 15 years to address backlog through major capital projects and one-time sources like State grants and borrowing



Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Debt Service Burden (%)	5.1%	5.5%	4.9%	2.0%	5.1%	7.0%	7.1%	7.1%	6.8%	5.7%	5.5%	5.4%
Debt Service Coverage (x)	2.3	2.6	2.7	5.8	2.3	2.0	1.6	1.8	1.9	2.1	2.1	2.1
Financial Leverage (x)	0.83	0.98	0.84	1.15	0.95	0.91	0.83	0.84	0.95	1.07	1.17	1.30
Total Debt (\$ in thousands)	590,265	536,644	603,933	639,298	924,853	856,423	886,470	844,683	799,778	763,238	725,178	685,763

University



University: Revenue & Expenses

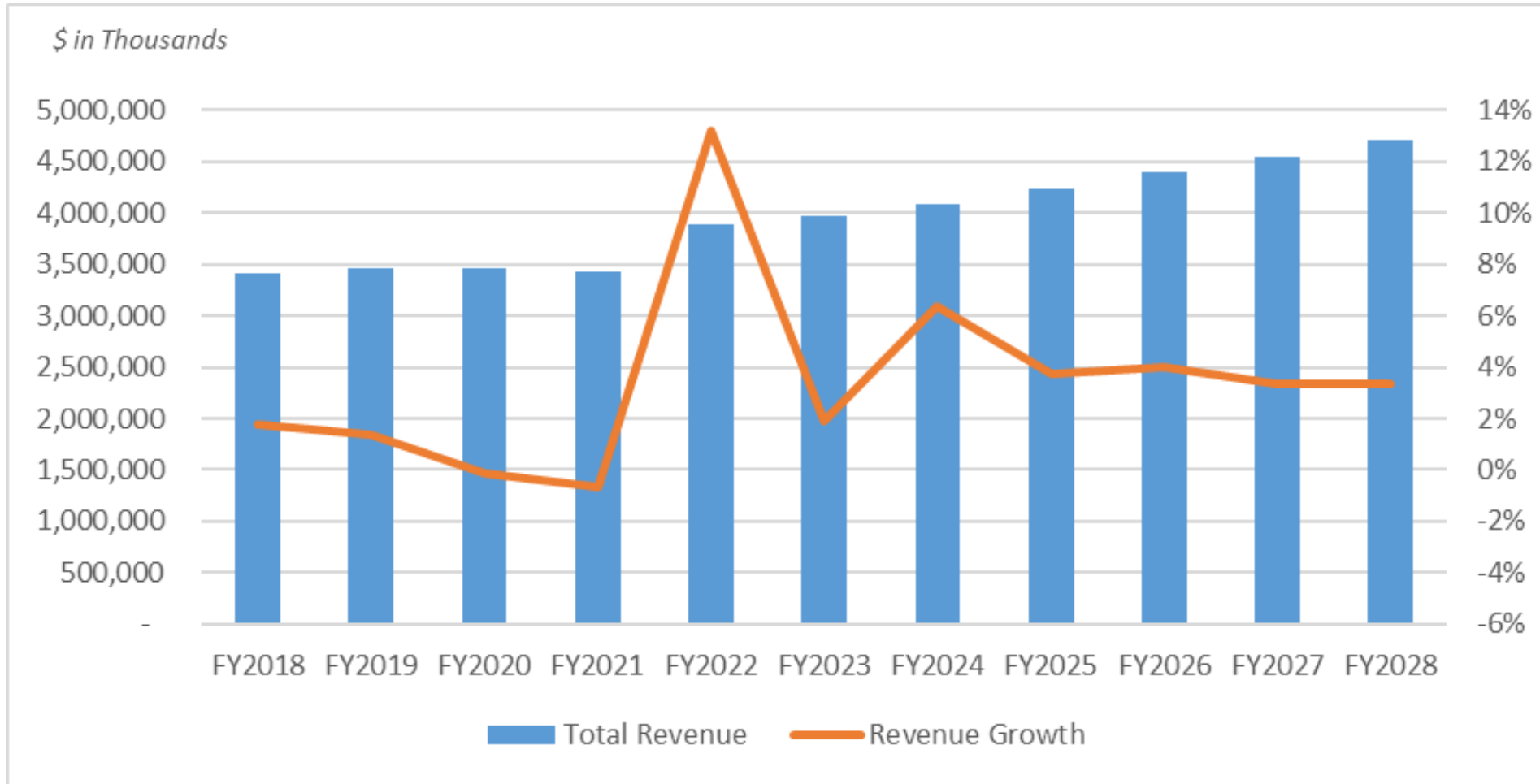
(\$ in Thousands)

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY24-28	
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Avg. Annual
Gross Tuition & Fees	1,186,773	1,223,734	1,260,327	1,275,742	1,268,347	1,306,872	1,331,922	1,376,891	1,430,727	1,485,097	1,523,282	1,565,233	13.7%	3.7%
Tuition Discounts	(311,947)	(328,830)	(343,030)	(345,128)	(364,746)	(372,754)	(379,317)	(391,224)	(407,281)	(421,441)	(429,539)	(439,984)	12.5%	3.4%
Discount Rate	26.3%	26.9%	27.2%	27.1%	28.8%	28.5%	28.5%	28.4%	28.5%	28.4%	28.2%	28.1%	-1.1%	-0.3%
Net Tuition & Fees	874,826	894,904	917,297	930,614	903,601	934,119	952,605	985,667	1,023,446	1,063,656	1,093,743	1,125,249	14.2%	3.8%
Grants	560,990	593,086	581,372	667,148	716,333	687,541	714,435	784,996	842,874	902,426	943,138	985,475	25.5%	7.5%
Sales & Service, Educational	30,591	34,985	31,248	30,253	40,906	37,094	40,901	42,392	43,654	44,972	46,350	47,794	12.7%	5.3%
Auxiliary Enterprises	416,733	441,795	378,314	163,811	432,970	465,347	474,315	487,829	500,597	514,129	529,300	545,354	11.8%	3.2%
Other Operating	311,119	222,074	238,188	199,854	267,881	224,835	254,243	247,028	253,295	255,273	257,117	258,336	4.6%	2.9%
State Appropriations	751,894	780,222	810,518	845,482	880,002	986,826	1,018,814	1,002,995	1,034,430	1,076,764	1,120,392	1,166,064	16.3%	3.4%
Other NonOperating	197,142	231,504	222,129	288,591	311,393	211,409	222,343	229,579	240,300	245,252	253,205	260,957	13.7%	4.3%
Independent Business	274,555	266,509	280,620	311,262	251,782	289,220	288,067	299,164	294,007	300,298	307,838	315,533	5.5%	1.8%
Total Revenues	3,417,850	3,465,079	3,459,686	3,437,015	3,804,868	3,836,389	3,965,724	4,079,650	4,232,605	4,402,769	4,551,082	4,704,762	15.3%	4.2%
% Growth	1.8%	1.4%	-0.2%	-0.7%	10.7%	0.8%	4.2%	6.3%	3.7%	4.0%	3.4%	3.4%		
Expenses													Cumulative	Avg. Annual
Salaries & Fringe	1,901,896	1,970,869	2,012,669	2,008,909	2,119,274	2,208,061	2,274,277	2,360,318	2,447,326	2,557,965	2,647,185	2,738,532	16.0%	4.4%
Non-Personnel	1,007,943	943,685	949,638	897,115	1,030,011	1,067,663	1,068,790	1,112,027	1,145,665	1,188,417	1,240,045	1,300,794	17.0%	4.0%
Scholarships & Fellowships	50,402	49,507	65,464	80,024	118,302	64,129	61,566	62,162	64,976	67,423	69,253	70,425	13.3%	1.9%
Depreciation	261,417	276,638	288,667	300,201	323,702	328,366	328,182	343,293	360,479	367,510	371,829	369,968	7.8%	2.4%
Interest	115,851	116,217	109,186	105,468	114,541	125,947	126,339	119,922	127,190	130,613	129,357	127,259	6.1%	0.3%
Total Expenses	3,336,260	3,356,916	3,424,616	3,391,718	3,705,830	3,794,166	3,859,154	3,997,722	4,145,636	4,311,929	4,457,669	4,606,978	15.2%	4.0%
% Growth	3.1%	0.6%	2.0%	-1.0%	9.3%	2.4%	4.1%	5.4%	3.7%	4.0%	3.4%	3.3%		
UMass OM Calc Revenues	3,416,188	3,449,697	3,462,090	3,459,992	3,852,950	3,824,341	3,965,724	4,077,501	4,230,680	4,400,945	4,549,242	4,702,882		
Total Expenses	3,336,260	3,356,916	3,424,616	3,391,716	3,705,830	3,795,798	3,859,154	3,997,722	4,145,636	4,311,929	4,457,669	4,606,978		
Surplus / (Deficit)	79,928	92,781	37,474	68,276	147,120	28,543	106,570	79,779	85,044	89,016	91,573	95,904		
UMass OM Calc	2.3%	2.7%	1.1%	2.0%	3.8%	0.7%	2.7%	2.0%	2.0%	2.0%	2.0%	2.0%		

Note: excludes UMass Global

University Revenue: Trend

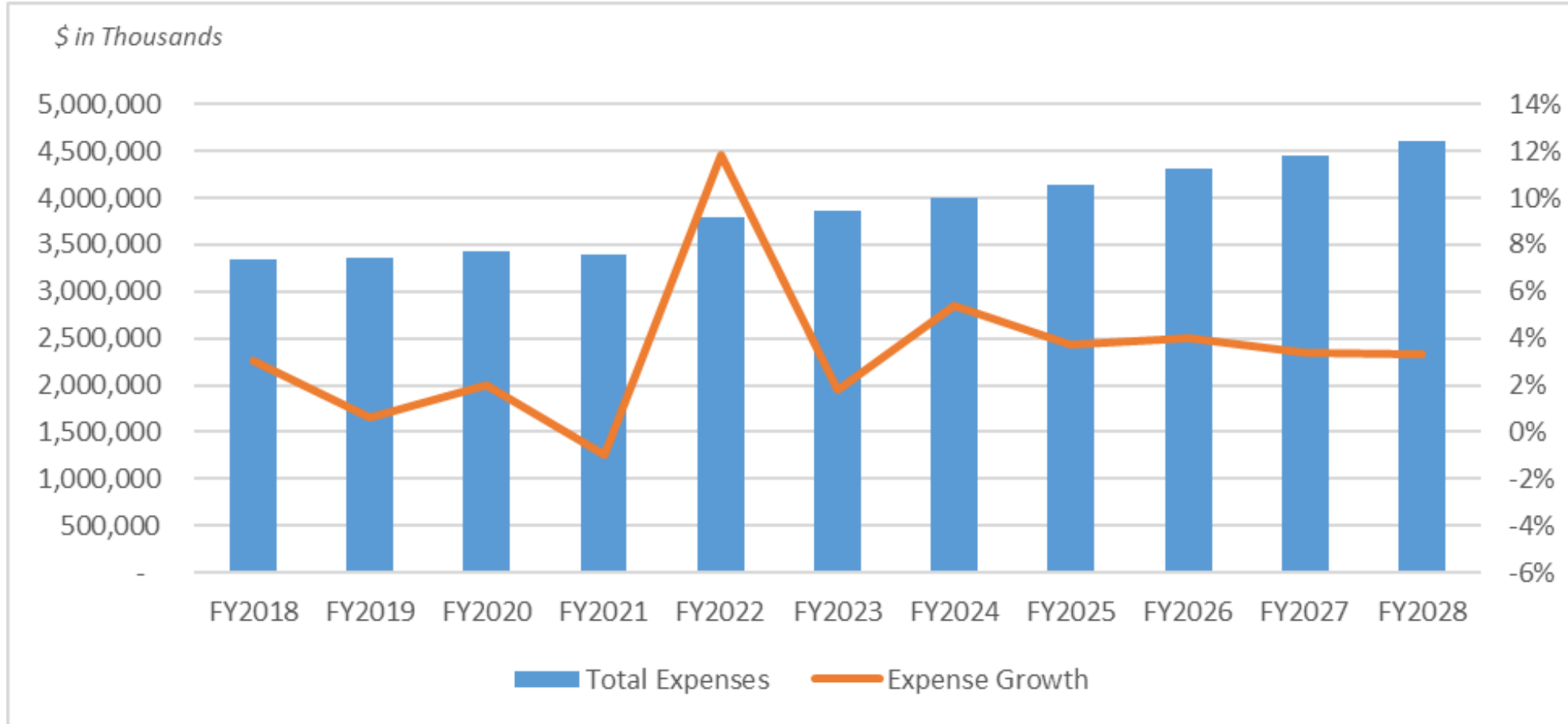
Revenue grows on average 4.2% over the forecast period.



Note: excludes UMass Global

University Expenses: Annual Changes

Expenses grow on average 4.0% over the forecast period.



Excludes impact of GASB 68 & 75

University Revenue: by Revenue Category

\$ in Thousands	Actual					Budget	Q1 Projection	Forecast					Change FY24-28	
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Avg. Annual
Gross Tuition & Fees	1,185,826	1,223,734	1,260,906	1,275,742	1,268,347	1,306,872	1,331,922	1,376,891	1,430,727	1,485,097	1,523,282	1,565,233	188,342	
Gross Tuition & Fees Growth	4.3%	3.2%	3.0%	1.2%	-0.6%	3.0%	5.0%	5.4%	3.9%	3.8%	2.6%	2.8%	13.7%	3.7%
Tuition Discounts	(311,000)	(328,830)	(343,030)	(345,128)	(364,746)	(372,754)	(379,317)	(391,224)	(407,281)	(421,441)	(429,539)	(439,984)	(48,759)	
Tuition Discounts Growth	7.7%	5.7%	4.3%	0.6%	5.7%	2.2%	4.0%	5.0%	4.1%	3.5%	1.9%	2.4%	12.5%	3.4%
Net Tuition & Fees	874,825	894,904	917,876	930,614	903,601	934,119	952,605	985,667	1,023,446	1,063,656	1,093,743	1,125,249	139,582	
Net Tuition & Fees Growth	3.2%	2.3%	2.6%	1.4%	-2.9%	3.4%	5.4%	5.5%	3.8%	3.9%	2.8%	2.9%	14.2%	3.8%
Grants	560,990	593,086	581,849	667,148	716,333	687,541	714,435	784,996	842,874	902,426	943,138	985,475	200,479	
Grants Growth	0.2%	5.7%	-1.9%	14.7%	7.4%	-4.0%	-0.3%	14.2%	7.4%	7.1%	4.5%	4.5%	25.5%	7.5%
Sales & Service, Educational	30,591	34,984	31,248	30,253	40,906	37,094	40,901	42,392	43,654	44,972	46,350	47,794	5,402	
Sales & Service, Educational Growth	5.8%	14.4%	-10.7%	-3.2%	35.2%	-9.3%	-0.0%	14.3%	3.0%	3.0%	3.1%	3.1%	12.7%	5.3%
Auxiliary Enterprises	416,733	441,795	378,314	163,811	432,970	465,347	474,315	487,829	500,597	514,129	529,300	545,354	57,525	
Auxiliary Growth	4.0%	6.0%	-14.4%	-56.7%	164.3%	7.5%	9.5%	4.8%	2.6%	2.7%	3.0%	3.0%	11.8%	3.2%
Other Operating	311,119	222,076	179,034	199,854	267,881	224,835	254,243	247,028	253,295	255,273	257,117	258,336	11,308	
Other Operating Growth	33.1%	-28.6%	-19.4%	11.6%	34.0%	-16.1%	-5.1%	9.9%	2.5%	0.8%	0.7%	0.5%	4.6%	2.9%
State	751,894	780,222	810,518	845,482	880,002	986,826	1,018,814	1,002,995	1,034,430	1,076,764	1,120,392	1,166,064	163,069	
State Growth	4.3%	3.8%	3.9%	4.3%	4.1%	12.1%	15.8%	1.6%	3.1%	4.1%	4.1%	4.1%	16.3%	3.4%
Other Non Operating	197,142	231,504	222,128	288,591	311,393	211,409	222,343	229,579	240,300	245,252	253,205	260,957	31,378	
Other Non-Operating Growth	1.1%	17.4%	-4.1%	29.9%	7.9%	-32.1%	-28.6%	8.6%	4.7%	2.1%	3.2%	3.1%	13.7%	4.3%
Independent Business Lines (Med)	274,555	266,509	337,709	311,262	251,782	289,220	288,067	299,164	294,007	300,298	307,838	315,533	16,369	
Independent Business Lines Growth	-26.1%	-2.9%	26.7%	-7.8%	-19.1%	14.9%	14.4%	3.4%	-1.7%	2.1%	2.5%	2.5%	5.5%	1.8%
University	3,417,849	3,465,080	3,458,676	3,437,015	3,804,868	3,836,389	3,965,724	4,079,650	4,232,605	4,402,769	4,551,082	4,704,762	625,112	
University Growth	1.8%	1.4%	-0.2%	-0.6%	10.7%	0.8%	4.2%	6.3%	3.7%	4.0%	3.4%	3.4%	15.3%	4.2%

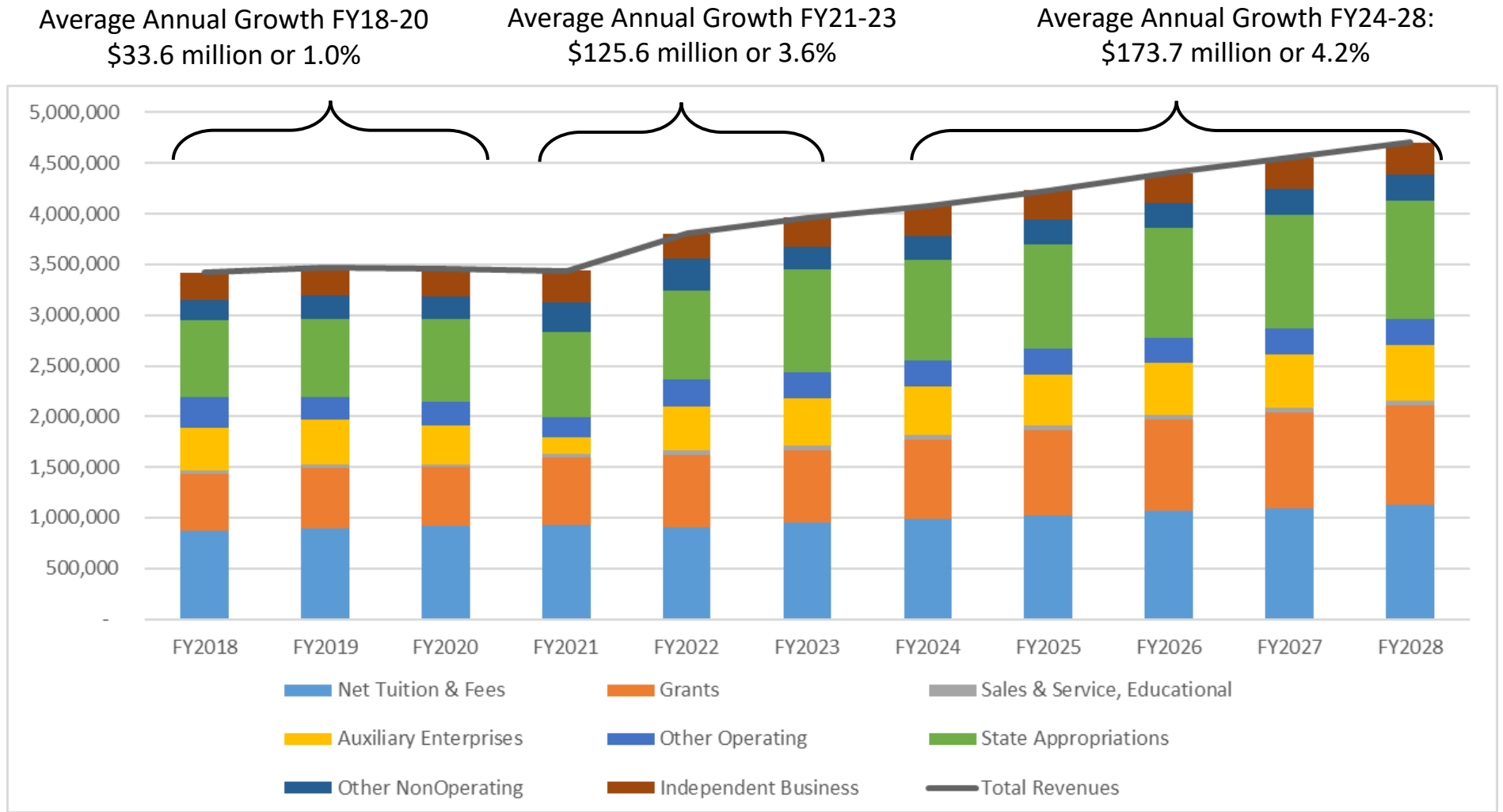
Note: excludes UMass Global; includes unrealized gains

Revenue: by Campus

\$ in Thousands	Actual					Budget	Q1 Projection	Forecast					Change FY24-28	
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Avg. Annual
Amherst	1,276,643	1,341,052	1,328,911	1,242,326	1,495,879	1,522,969	1,615,270	1,638,338	1,688,165	1,751,200	1,806,333	1,866,000	227,662	
Amherst Growth	5.0%	5.0%	-0.9%	-6.5%	20.4%	1.8%	8.0%	7.6%	3.0%	3.7%	3.1%	3.3%	13.9%	4.2%
Boston	426,589	436,467	443,615	468,123	482,363	470,496	488,005	497,122	513,800	531,388	548,127	565,218	68,095	
Boston Growth	0.8%	2.3%	1.6%	5.5%	3.0%	-2.5%	1.2%	5.7%	3.4%	3.4%	3.1%	3.1%	13.7%	3.7%
Dartmouth	250,628	256,592	251,446	241,240	262,177	258,762	270,589	270,611	281,075	290,278	298,953	308,361	37,750	
Dartmouth Growth	0.9%	2.4%	-2.0%	-4.1%	8.7%	-1.3%	3.2%	4.6%	3.9%	3.3%	3.0%	3.1%	13.9%	3.6%
Lowell	459,042	484,770	480,120	474,927	533,690	529,157	541,612	560,949	587,506	610,993	635,353	658,989	98,040	
Lowell Growth	4.4%	5.6%	-1.0%	-1.1%	12.4%	-0.8%	1.5%	6.0%	4.7%	4.0%	4.0%	3.7%	17.5%	4.5%
President's Office	119,219	124,478	115,679	99,273	100,136	99,837	101,121	102,035	103,914	105,722	107,750	109,591	7,556	
President's Office Growth	1.3%	4.4%	-7.1%	-14.2%	0.9%	-0.3%	1.0%	2.2%	1.8%	1.7%	1.9%	1.7%	7.4%	1.9%
Subtotal	2,532,121	2,643,359	2,619,771	2,525,889	2,874,245	2,881,221	3,016,597	3,069,055	3,174,460	3,289,581	3,396,516	3,508,158	439,103	
Subtotal Growth	3.4%	4.2%	-0.9%	-3.7%	13.8%	0.2%	5.0%	6.5%	3.3%	3.5%	3.1%	3.2%	14.3%	3.9%
Chan Medical School	965,654	903,377	921,572	991,322	1,017,143	986,824	1,030,784	1,093,885	1,143,101	1,199,843	1,242,954	1,286,760	192,875	
Medical School Growth	-2.7%	-6.4%	2.0%	7.6%	2.6%	-3.0%	1.3%	10.8%	4.5%	5.0%	3.6%	3.5%	17.6%	5.5%
University	3,417,850	3,465,079	3,459,686	3,437,015	3,804,868	3,836,388	3,965,724	4,079,650	4,232,605	4,402,769	4,551,082	4,704,762	631,978	
University Growth	-0.6%	1.4%	-0.2%	-0.7%	10.7%	0.8%	4.2%	6.3%	3.7%	4.0%	3.4%	3.4%	15.3%	4.2%

Note: excludes UMass Global; includes unrealized gains

University Revenue: Diverse Sources



Note: excludes UMass Global; includes unrealized gains

University Expenses: by Expense Category

\$ in Thousands	Actual						Budget	Q1 Projection	Forecast					Change FY24-28	
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Avg. Annual
Salaries & Fringe	1,847,346	1,901,896	1,970,869	2,096,087	2,008,909	2,119,274	2,208,061	2,274,277	2,360,318	2,447,326	2,557,965	2,647,185	2,738,532	378,214	
<i>Salaries & Fringe Growth</i>	3.3%	3.0%	3.6%	6.4%	-4.2%	5.5%	4.2%	7.3%	6.9%	3.7%	4.5%	3.5%	3.5%	16.0%	4.4%
Non-Personnel	1,018,600	1,088,019	943,685	987,219	897,115	1,030,011	1,067,663	1,068,790	1,112,027	1,145,665	1,188,417	1,240,045	1,300,794	188,767	
<i>Non-personnel Growth</i>	-4.6%	6.8%	-13.3%	4.6%	-9.1%	14.8%	3.7%	3.8%	4.2%	3.0%	3.7%	4.3%	4.9%	17.0%	4.0%
Scholarships & Fellowships	47,706	50,402	49,507	65,469	80,024	118,302	64,129	61,566	62,162	64,976	67,423	69,253	70,425	8,264	
<i>Scholarships & fellowships Growth</i>	6.9%	5.7%	-1.8%	32.2%	22.2%	47.8%	-45.8%	-48.0%	-3.1%	4.5%	3.8%	2.7%	1.7%	13.3%	1.9%
Depreciation	249,669	261,417	276,638	288,667	300,201	323,702	328,366	328,182	343,293	360,479	367,510	371,829	369,968	26,675	
<i>Depreciation Growth</i>	3.7%	4.7%	5.8%	4.3%	4.0%	7.8%	1.4%	1.4%	4.5%	5.0%	2.0%	1.2%	-0.5%	7.8%	2.4%
Interest	110,069	115,851	116,217	109,186	105,468	114,541	125,947	126,339	119,922	127,190	130,613	129,357	127,259	7,337	
<i>Interest Growth</i>	4.6%	5.3%	0.3%	-6.0%	-3.4%	8.6%	10.0%	10.3%	-4.8%	6.1%	2.7%	-1.0%	-1.6%	6.1%	0.3%
University	3,237,351	3,336,260	3,356,916	3,424,616	3,391,718	3,705,830	3,794,166	3,859,154	3,997,722	4,145,636	4,311,929	4,457,669	4,606,978	609,256	
<i>University Growth</i>	0.8%	3.1%	0.6%	2.0%	-1.0%	9.3%	2.4%	4.1%	5.4%	3.7%	4.0%	3.4%	3.3%	15.2%	4.0%

Note: excludes UMass Global; excludes impact of GASB 68 & 75

Expenses: by Campus

\$ in Thousands	Actual					Budget	Q1 Projection	Forecast					Change FY24-28	
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Cumulative	Avg. Annual
Amherst	1,241,490	1,296,841	1,329,105	1,265,323	1,409,590	1,510,333	1,547,122	1,602,737	1,655,004	1,716,659	1,771,075	1,827,990	225,253	
Amherst Growth	5.8%	4.5%	2.5%	-4.8%	11.4%	7.1%	9.8%	6.1%	3.3%	3.7%	3.2%	3.2%	14.1%	3.9%
Boston	424,202	430,967	438,957	442,992	481,706	470,497	481,408	487,304	503,524	520,761	537,164	553,913	66,609	
Boston Growth	-0.1%	1.6%	1.9%	0.9%	8.7%	-2.3%	-0.1%	3.6%	3.3%	3.4%	3.1%	3.1%	13.7%	3.3%
Dartmouth	250,270	255,118	251,450	240,186	262,950	258,762	267,908	268,018	275,575	284,616	293,119	302,341	34,324	
Dartmouth Growth	4.8%	1.9%	-1.4%	-4.5%	9.5%	-1.6%	1.9%	3.6%	2.8%	3.3%	3.0%	3.1%	12.8%	3.2%
Lowell	451,552	476,652	483,244	463,883	533,458	529,157	537,680	552,534	575,758	598,766	622,641	645,806	93,272	
Lowell Growth	5.4%	5.6%	1.4%	-4.0%	15.0%	-0.8%	0.8%	4.4%	4.2%	4.0%	4.0%	3.7%	16.9%	4.1%
President's Office	106,776	111,963	112,583	91,806	96,969	97,830	96,331	99,994	101,835	103,608	105,594	107,400	7,406	
President's Office Growth	-2.0%	4.9%	0.6%	-18.5%	5.6%	0.9%	-0.7%	2.2%	1.8%	1.7%	1.9%	1.7%	7.4%	1.9%
Chan Medical School	943,144	867,033	891,942	967,724	1,007,677	960,876	1,010,362	1,070,425	1,118,897	1,174,175	1,216,464	1,259,683	189,258	
Medical School Growth	0.1%	-8.1%	2.9%	8.5%	4.1%	-4.6%	0.3%	11.4%	4.5%	4.9%	3.6%	3.6%	17.7%	5.6%
University	3,336,260	3,356,916	3,424,616	3,391,718	3,705,830	3,794,166	3,859,154	3,997,722	4,145,636	4,311,929	4,457,669	4,606,978	609,256	
University Growth	3.1%	0.6%	2.0%	-1.0%	9.3%	2.4%	4.1%	5.4%	3.7%	4.0%	3.4%	3.3%	15.2%	4.0%

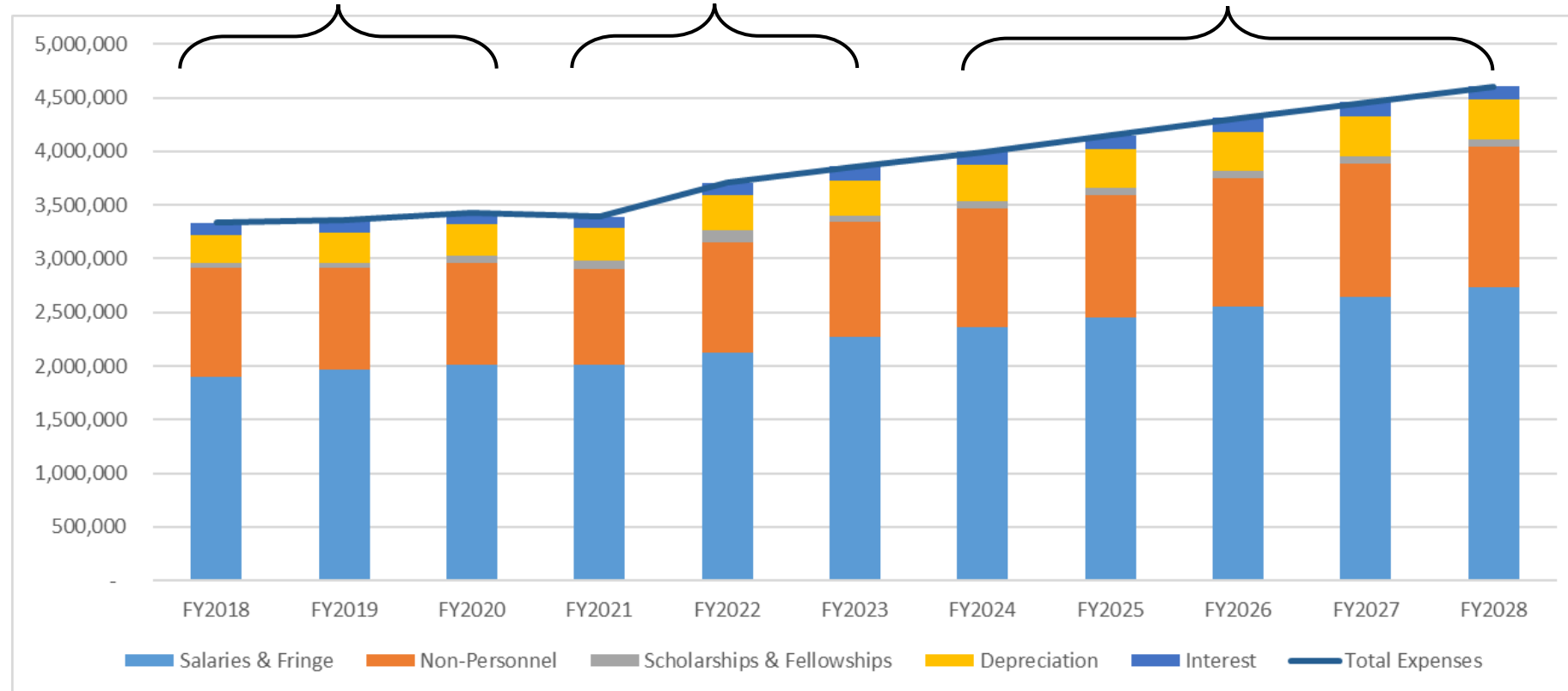
Note: excludes UMass Global; excludes impact of GASB 68 & 75

University Expenses: Expense Drivers

Average Annual Growth FY18-20:
\$62.4 million or 1.9%

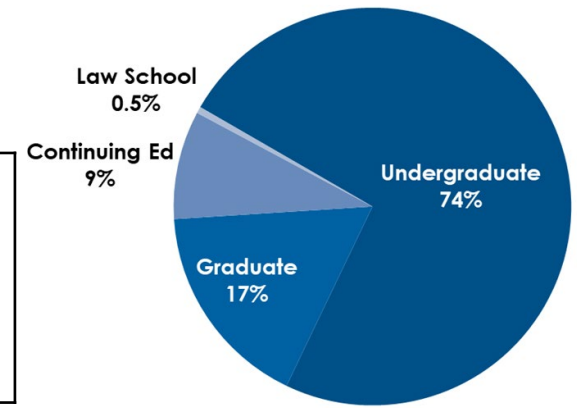
Average Annual Growth FY21-23:
\$123.2 million or 3.6%

Average Annual Growth FY24-28:
\$162.6 million or 4.0%



Note: excludes UMass Global; excludes impact of GASB 68 & 75

Enrollment



AAGR	Total	Undergraduate	Graduate
FY24-28:	0.7	0.5	1.5
FY21-23:	-0.7	-1.8	3.9
FY18-20:	1.1	1.7	-0.4

Students <i>FTEs</i>	Actual		Forecast					Average Growth		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY18-20	FY21-23	FY24-28
Amherst	29,804	30,188	29,882	30,086	30,443	30,355	30,355			
% Change	0.4%	1.3%	-1.0%	0.7%	1.2%	-0.3%	0.0%	1.9%	0.4%	0.1%
Boston	12,959	12,876	13,000	13,185	13,245	13,302	13,307			
% Change	-4.5%	-0.6%	1.0%	1.4%	0.5%	0.4%	0.0%	0.8%	-0.9%	0.7%
Dartmouth	6,459	6,314	6,411	6,599	6,642	6,724	6,829			
% Change	-3.7%	-2.3%	1.5%	2.9%	0.7%	1.2%	1.6%	-2.1%	-3.2%	1.6%
Lowell	14,321	13,925	14,063	14,412	14,714	14,834	14,956			
% Change	-3.6%	-2.8%	1.0%	2.5%	2.1%	0.8%	0.8%	1.3%	-2.0%	1.4%
Chan Medical School	1,246	1,301	1,325	1,363	1,413	1,463	1,488			
% Change	0.3%	4.4%	1.8%	2.9%	3.7%	3.5%	1.7%	5.5%	2.9%	2.7%
University	64,789	64,603	64,682	65,644	66,457	66,678	66,935			
% Change	-1.9%	-0.3%	0.1%	1.5%	1.2%	0.3%	0.4%	1.1%	-0.7%	0.7%

Note: excludes UMass Global

Undergraduate

AAGR
 FY24-28: 0.5
 FY21-23: -1.8
 FY18-20: 1.7

Students <i>FTEs</i>	Actual		Forecast					Average Growth		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY18-20	FY21-23	FY24-28
Amherst	23,292	23,722	23,416	23,620	23,977	23,889	23,889			
% Change	-0.6%	1.8%	-1.3%	0.9%	1.5%	-0.4%	0.0%	1.6%	0.1%	0.1%
Boston	9,810	9,997	10,064	10,123	10,176	10,231	10,236			
% Change	-5.4%	1.9%	0.7%	0.6%	0.5%	0.5%	0.0%	2.7%	-0.9%	0.5%
Dartmouth	4,635	4,422	4,374	4,321	4,322	4,360	4,418			
% Change	-7.2%	-4.6%	-1.1%	-1.2%	0.0%	0.9%	1.3%	-3.5%	-5.6%	-0.0%
Lowell	10,010	9,469	9,573	9,887	10,154	10,239	10,325			
% Change	-6.8%	-5.4%	1.1%	3.3%	2.7%	0.8%	0.8%	4.1%	-4.8%	1.8%
University	47,746	47,610	47,427	47,951	48,628	48,719	48,867			
	-3.6%	-0.3%	-0.4%	1.1%	1.4%	0.2%	0.3%	1.7%	-1.8%	0.5%

Note: excludes UMass Global

Graduate

AAGR

FY24-28: 1.5

FY21-23: 3.9

FY18-20: -0.4

Students <i>FTEs</i>	Actual		Forecast					Average Growth		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY18-20	FY21-23	FY24-28
Amherst	3,735	3,840	3,840	3,840	3,840	3,840	3,840			
<i>% Change</i>	2.5%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	1.0%	0.0%
Boston	1,556	1,829	1,872	1,992	1,996	1,996	1,996			
<i>% Change</i>	-13.2%	17.5%	2.3%	6.4%	0.2%	0.0%	0.0%	-0.5%	1.6%	1.8%
Dartmouth	566	697	809	1,009	1,009	1,009	1,009			
<i>% Change</i>	-2.4%	23.1%	16.1%	24.7%	0.0%	0.0%	0.0%	-12.3%	9.6%	8.2%
Lowell	3,292	3,432	3,466	3,501	3,536	3,571	3,607			
<i>% Change</i>	11.9%	4.2%	1.0%	1.0%	1.0%	1.0%	1.0%	-0.9%	9.2%	1.0%
Chan Medical School	1,246	1,301	1,325	1,363	1,413	1,463	1,488			
<i>% Change</i>	0.3%	4.4%	1.8%	2.9%	3.7%	3.5%	1.7%	5.5%	2.9%	2.7%
University	10,395	11,099	11,312	11,704	11,794	11,879	11,940			
	1.9%	6.8%	1.9%	3.5%	0.8%	0.7%	0.5%	-0.4%	3.9%	1.5%

Note: excludes UMass Global

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		
	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY18-20	FY21-23	FY24-28
Amherst	2,190	2,005	2,005	2,005	2,005	2,005	2,005			
% Change	10.8%	-8.4%	0.0%	0.0%	0.0%	0.0%	0.0%	-2.3%	7.2%	0.0%
Boston	1,310	999	1,002	1,008	1,012	1,014	1,014			
% Change	54.7%	-23.7%	0.3%	0.6%	0.4%	0.2%	0.0%	5.6%	13.6%	0.3%
Dartmouth	804	675	709	745	782	821	863			
% Change	16.5%	-16.0%	5.0%	5.1%	5.0%	5.0%	5.1%	46.1%	2.3%	5.0%
Lowell	2,846	2,811	2,830	2,856	2,880	2,899	2,918			
% Change	20.8%	-1.2%	0.7%	0.9%	0.9%	0.7%	0.7%	1.4%	13.6%	0.8%
University	7,150	6,490	6,546	6,614	6,679	6,739	6,801			
	21.8%	-9.2%	0.9%	1.0%	1.0%	0.9%	0.9%	3.9%	9.8%	0.9%
Global	6,617	5,352	5,887	6,902	7,602	8,152	8,638			
% Change		-19.1%	10.0%	17.2%	10.1%	7.2%	6.0%			10.1%

University: Enrollment Trend

University Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
Undergraduate	48,557	49,571	50,241	49,532	47,746	47,574	47,610	47,427	47,951	48,628	48,719	48,867
% Change		2.1%	1.4%	-1.4%	-3.6%	-0.4%	-0.3%	-0.4%	1.1%	1.4%	0.2%	0.3%
Graduate	9,976	9,920	9,893	10,199	10,395	10,760	11,099	11,312	11,704	11,794	11,879	11,940
% Change		-0.6%	-0.3%	3.1%	1.9%	3.5%	6.8%	1.9%	3.5%	0.8%	0.7%	0.5%
Continuing Ed	5,814	5,658	5,634	6,012	6,321	6,431	5,552	5,600	5,641	5,682	5,722	5,765
% Change		-2.7%	-0.4%	6.7%	5.1%	1.7%	-12.2%	0.9%	0.7%	0.7%	0.7%	0.7%
Law	184	199	246	328	326	325	341	343	348	353	358	363
% Change		8.4%	23.6%	33.2%	-0.5%	-0.3%	4.6%	0.6%	1.5%	1.4%	1.4%	1.4%
Total	64,530	65,348	66,013	66,071	64,789	65,090	64,602	64,682	65,644	66,457	66,678	66,935
% Change		1.3%	1.0%	0.1%	-1.9%	0.5%	-0.3%	0.1%	1.5%	1.2%	0.3%	0.4%

Source: Actuals from student profile; excludes UMass Global.

University: Enrollment by Residency

University Students (FTEs)	Actual					Budget	Actual	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
In State	48,556	49,461	50,117	50,476	48,752	48,676	47,009	46,605	46,949	47,489	47,718	47,858
% Change		1.9%	1.3%	0.7%	-3.4%	-0.2%	-3.4%	-0.9%	0.7%	1.2%	0.5%	0.3%
Out of State	9,415	9,451	9,491	9,668	10,178	10,382	10,726	11,017	11,337	11,615	11,640	11,744
% Change		0.4%	0.4%	1.9%	5.3%	2.0%	3.3%	2.7%	2.9%	2.5%	0.2%	0.9%
International	6,559	6,436	6,405	5,928	5,858	6,032	6,866	7,060	7,358	7,352	7,320	7,333
% Change		-1.9%	-0.5%	-7.5%	-1.2%	3.0%	13.8%	2.8%	4.2%	-0.1%	-0.4%	0.2%
Total	64,530	65,348	66,013	66,071	64,789	65,090	64,602	64,682	65,644	66,457	66,678	66,935
% Change		1.3%	1.0%	0.1%	-1.9%	0.5%	-0.8%	0.1%	1.5%	1.2%	0.3%	0.4%

Source: Actuals from student profile; excludes UMass Global.

University: Enrollment by New v Continuing

University Enrollment (FTEs)	Actual						Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023		FY2024	FY2025	FY2026	FY2027	FY2028
New	13,230	13,793	14,876	15,479	13,881	13,373	13,849	14,245	14,168	14,383	14,537	14,683	14,753
First-time Freshman							10,757	11,472	11,424	11,636	11,786	11,932	12,002
Transfer							3,092	2,773	2,744	2,747	2,751	2,751	2,751
% Change	645.8%	4.2%	7.9%	4.1%	-10.3%	-3.7%	3.6%	2.9%	-0.5%	1.5%	1.1%	1.0%	0.5%
Continuing	34,490	34,763	34,694	34,760	35,651	34,373	33,725	33,364	33,258	33,568	34,092	34,036	34,115
% Change	688.4%	0.8%	-0.2%	0.2%	2.6%	-3.6%	-1.9%	-1.1%	-0.3%	0.1%	0.1%	0.0%	0.0%
Undergraduate Total	47,720	48,555	49,570	50,239	49,531	47,746	47,574	47,609	47,426	47,951	48,629	48,718	48,868
% Change	676.1%	1.7%	2.1%	1.3%	-1.4%	-3.6%	-0.4%	0.1%	-0.4%	0.9%	1.6%	-0.2%	0.2%

Source: Actuals from student profile; excludes UMass Global.

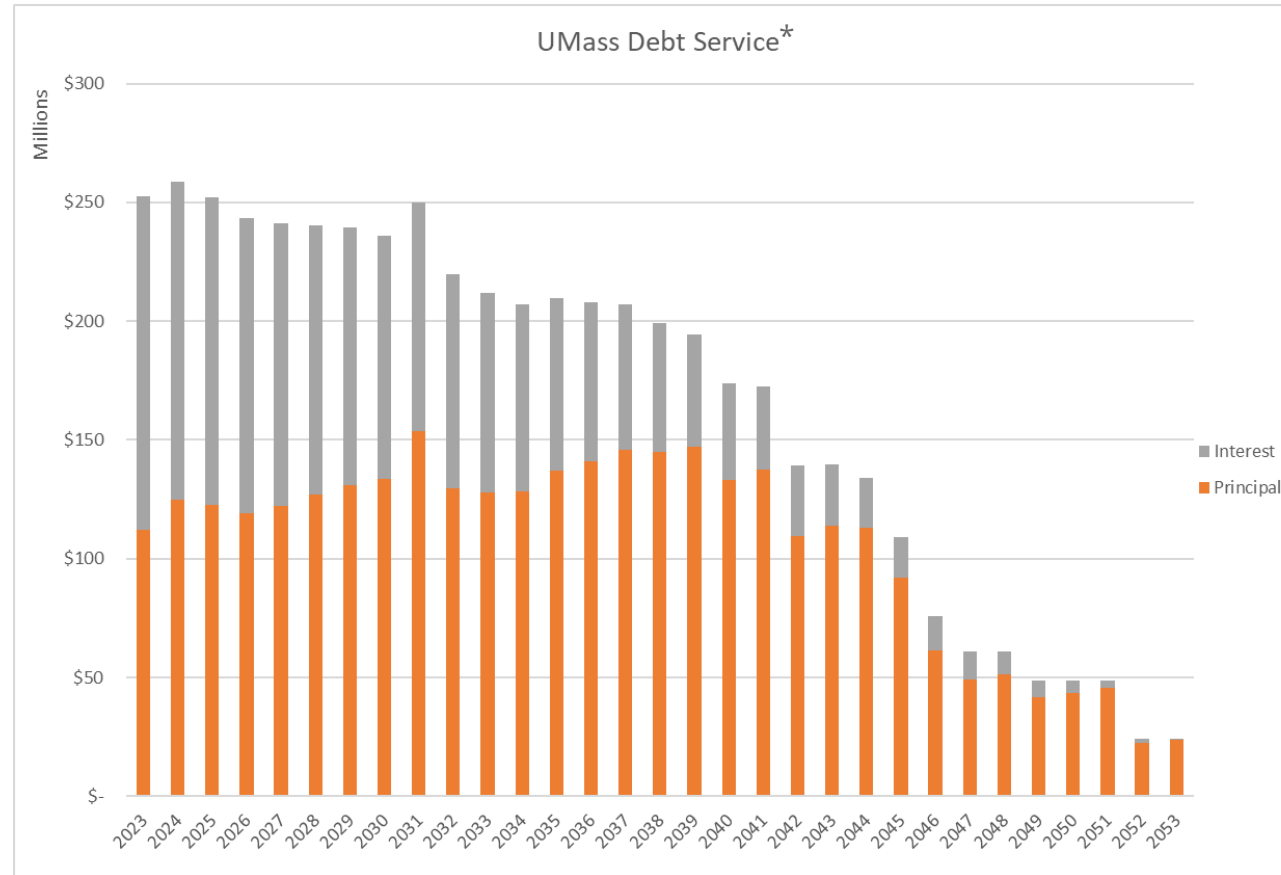
University: Staffing

Employee FTEs	Actual					UNIVERSITY		Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	Budget FY2023	Actual FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Restricted												
Faculty	313	318	315	312	325	324	322	341	360	380	390	399
Staff	1,553	1,537	1,597	1,543	1,532	1,571	1,618	1,684	1,757	1,828	1,866	1,906
Total Restricted	1,866	1,854	1,911	1,854	1,858	1,895	1,940	2,025	2,117	2,208	2,256	2,305
# Change	245	(12)	57	(57)	(54)	37	82	130	92	91	48	49
% Change	15.1%	-0.7%	3.1%	-3.0%	-2.8%	2.0%	4.4%	6.9%	4.5%	4.3%	2.2%	2.2%
Unrestricted General University Ops												
Faculty	3,878	3,961	3,990	3,874	3,928	3,975	3,970	4,024	4,064	4,137	4,174	4,207
Staff	6,566	6,539	6,588	6,209	6,380	6,633	6,472	6,707	6,794	6,928	7,001	7,118
Executive/Admin/Managerial	458	469	483	490	-	-	317	-	-	-	-	-
Professional Nonfaculty	3,581	3,630	3,718	3,609	-	-	1,298	-	-	-	-	-
Secretarial/Clerical	1,119	1,087	1,050	923	-	-	228	-	-	-	-	-
Technical/Paraprofessional	619	614	600	567	-	-	155	-	-	-	-	-
Skilled Crafts	268	261	257	218	-	-	51	-	-	-	-	-
Service Maintenance Workers	521	479	479	402	-	-	66	-	-	-	-	-
Unspecified			1				-					
Total General University Ops	10,444	10,500	10,578	10,083	10,308	10,608	10,442	10,731	10,858	11,065	11,175	11,325
# Change	198	56	77	(495)	(269)	300	134	123	127	207	110	150
% Change	1.9%	0.5%	0.7%	-4.7%	-2.5%	2.9%	1.3%	1.2%	1.2%	1.9%	1.0%	1.3%
Unrestricted Aux./Independent Business												
Faculty	15	13	10	11	12	12	10	14	14	14	14	14
Staff	2,466	2,751	3,020	2,291	2,830	2,959	2,955	3,223	3,174	3,172	3,173	3,174
Total Aux./Independent Business	2,481	2,764	3,030	2,302	2,841	2,971	2,965	3,237	3,188	3,186	3,187	3,188
# Change	(86)	283	266	(728)	539	129	124	272	(49)	(2)	1	1
% Change	-3.4%	11.4%	9.6%	-24.0%	23.4%	4.6%	4.4%	9.2%	-1.5%	-0.1%	0.0%	0.0%
Total Faculty & Staff	14,792	15,118	15,519	14,239	15,008	15,773	15,347	15,993	16,163	16,459	16,618	16,818
# Change	357	327	401	(1,280)	(512)	765	339	220	170	296	159	200
% Change	2.5%	2.2%	2.7%	-8.2%	-3.3%	5.1%	2.3%	1.4%	1.1%	1.8%	1.0%	1.2%

Note: excludes UMass Global

University: Key Ratios

Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Operating Margin (%)	2.3%	2.7%	1.1%	2.0%	3.8%	0.7%	2.7%	2.0%	2.0%	2.0%	2.0%	2.0%
Operating Margin (\$)	79,928	92,781	37,474	68,276	147,120	28,543	106,570	79,779	85,044	89,016	91,573	95,904
Operating Cash Flow Margin (%)	13.2%	14.0%	13.1%	13.7%	16.3%	13.6%	15.3%	14.1%	14.2%	13.9%	13.5%	13.0%
Operating Cash Flow Margin (\$)	443,102	553,001	523,405	459,974	614,706	517,583	605,118	570,198	593,785	603,703	605,877	603,767
Debt Service Burden (%)	6.5%	6.6%	6.4%	3.6%	5.8%	6.3%	6.7%	6.3%	6.1%	5.9%	5.7%	5.6%
Debt Service Coverage (x)	2.1	2.1	2.0	3.8	2.8	2.2	2.3	2.3	2.4	2.4	2.4	2.4
Financial Leverage (x)	0.46	0.46	0.46	0.61	0.57	0.61	0.54	0.58	0.59	0.61	0.64	0.67
Total Debt (\$ in thousands)	4,111,154	4,382,824	4,446,124	4,459,378	5,153,157	4,781,114	5,028,451	4,936,807	5,027,664	4,958,220	4,866,168	4,716,922
Total Cash & Investments to Op Expenses (x)	0.57	0.61	0.61	0.82	0.82	0.79	0.72	0.73	0.72	0.72	0.71	0.70
Enrollment	64,530	65,348	66,013	66,071	64,789	65,090	64,602	64,682	65,644	66,457	66,678	66,935
Enrollment (% Change)	0.9%	1.3%	1.0%	0.1%	-1.9%	-1.5%	-0.3%	0.1%	1.5%	1.2%	0.3%	0.4%



Key Ratio	Actual					Budget	Q1 Projection	Forecast				
	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Debt Service Burden (%)	6.5%	6.6%	6.4%	3.6%	5.8%	6.3%	6.7%	6.3%	6.1%	5.9%	5.7%	5.6%
Debt Service Coverage (x)	2.1	2.1	2.0	3.8	2.8	2.2	2.3	2.3	2.4	2.4	2.4	2.4
Financial Leverage (x)	0.46	0.46	0.46	0.61	0.57	0.61	0.54	0.58	0.59	0.61	0.64	0.67
Total Adjusted Debt (\$ in thousands)	4,111,154	4,382,824	4,446,124	4,459,378	5,153,157	4,781,114	5,028,451	4,936,807	5,027,664	4,958,220	4,866,168	4,716,922

#14. 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 the FY2023 Enacted Budget:

Line item 7100-0200: *For the operation of the University of Massachusetts; provided, that not later than February 1, 2023, 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) the 5-year projected spending plan for academic years 2022 through 2027, 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; and (i) average financial aid award per financial aid recipient...*

Table of Legislative Requirements

Requirement	Page Numbers
<i>(i)</i> 5-Year Financial Forecast	74-168
<i>(i)</i> Cost savings initiatives and efforts to reduce tuition and fees	185-207
<i>(ii, a)</i> Personnel costs, delineated by staff type and type of pay, including, but not limited to base pay and bonus pay	108-120
<i>(ii, b)</i> Number of full-time equivalent employees by staff type	120
<i>(ii, c)</i> Non-instructional administrative costs	105-107
<i>(ii, d)</i> Costs related to asset management and acquisition	129-151
<i>(ii, e)</i> Annual enrollment growth	28-44
<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	45-55
<i>(ii, i)</i> Average financial aid award per financial aid recipient	45-55

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

Appendix B: Tuition & Fees



Tuition

After a two-year freeze, in state undergraduate tuition increase of 2.5% proposed.

Undergraduate:

In State	FY22	FY23	\$ Change	% Change
Amherst	15,791	16,186	395	2.5%
Boston	14,187	14,542	355	2.5%
Dartmouth	13,833	14,179	346	2.5%
Lowell	15,078	15,462	384	2.5%

Out of State	FY22	FY23	\$ Change	% Change
Amherst	36,316	37,405	1,089	3.0%
Boston	34,649	35,515	866	2.5%
Dartmouth	29,578	30,317	739	2.5%
Lowell	33,004	33,830	826	2.5%

Graduate:

In State	FY22	FY23	\$ Change	% Change
Amherst	14,778	15,148	370	2.5%
Boston	18,433	18,894	461	2.5%
Dartmouth	16,390	16,390	0	0.0%
Lowell	14,590	14,956	366	2.5%

Out of State	FY22	FY23	\$ Change	% Change
Amherst	33,536	34,542	1,006	3.0%
Boston	35,980	36,879	899	2.5%
Dartmouth	29,578	29,578	0	0.0%
Lowell	26,370	27,030	660	2.5%

Mandatory Fees

Undergraduate:

Technology Fee

Campus	FY22	FY23	\$ Change
Amherst	400	500	100
Boston	400	500	100
Dartmouth	400	500	100
Lowell	400	500	100

Student Activities Fee¹

Campus	FY22	FY23	\$ Change
Amherst	248	266	18
Boston	130	130	0
Dartmouth	175	175	0
Lowell	220	220	0

Graduate:

Technology, Student Activities¹, and Other Fees

Campus	FY22	FY23	\$ Change
Amherst ²	2,236.70	2,260.50	23.80
Boston	505	605	100
Dartmouth	575	675	100
Lowell	620	720	100

¹Student Activities Fee: varies by campus with changes voted/supported by students

²Amherst includes Student Senate, Service, and Health Fees

Tuition & Mandatory Fees

Undergraduate:

In State	FY22	FY23	\$ Change	% Change
Amherst	16,439	16,952	513	3.1%
Boston	14,717	15,172	455	3.1%
Dartmouth	14,408	14,854	446	3.1%
Lowell	15,698	16,182	484	3.1%

Out of State	FY22	FY23	\$ Change	% Change
Amherst	36,964	38,171	1,207	3.3%
Boston	35,179	36,145	966	2.7%
Dartmouth	30,153	30,992	839	2.8%
Lowell	33,624	34,550	926	2.8%

Graduate:

In State	FY22	FY23	\$ Change	% Change
Amherst	17,015.14	17,408.50	393.36	2.3%
Boston	18,938	19,499	561	3.0%
Dartmouth	16,965	17,065	100	0.6%
Lowell	15,210	15,676	466	3.1%

Out of State	FY22	FY23	\$ Change	% Change
Amherst	35,772.70	36,802.50	1,030	2.9%
Boston	36,485	37,484	999	2.7%
Dartmouth	30,153	30,253	100	0.3%
Lowell	26,990	27,750	760	2.8%

Tuition & Mandatory Fees: UMass Law

In State	FY22	FY23	\$ Change	% Change
Tuition	28,661	29,500	839	2.9%
Mandatory Fees	575	675	100	
Tuition & Mandatory Fees	29,236	30,175	939	3.2%

Out of State	FY22	FY23	\$ Change	% Change
Tuition	37,569	38,600	1,031	2.7%
Mandatory Fees	575	675	100	
Tuition & Mandatory Fees	38,144	39,275	1,131	3.0%

Tuition & Mandatory Fees: Chan Medical School

	In State				Out of State			
	FY22	FY23	\$ Change	% Change	FY22	FY23	\$ Change	% Change
<i>T.H. Chan School of Medicine</i>								
Tuition	37,120	38,048	928	2.5%	63,832	65,428	1,596	2.5%
Mandatory Fees	2,130	2,180	50	2.3%	2,130	2,180	50	2.3%
<i>Tan Chingfen Graduate School of Nursing</i>								
Tuition	14,490	14,852	362	2.5%	19,812	20,308	496	2.5%
Graduate Entry Program Tuition	45,180	46,310	1,130	2.5%	58,106	59,559	1,453	2.5%
Mandatory Fees	1,410	1,444	34	2.4%	1,410	1,444	34	2.4%
<i>Morningside Graduate School of Biomedical Sciences</i>								
Tuition	14,946	15,320	374	2.5%	32,826	33,648	822	2.5%
Mandatory Fees	1,072	1,098	26	2.4%	1,072	1,098	26	2.4%

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

Room Campus Owned	FY22	FY23	\$ Change	% Change	Room P3 ²	FY22	FY23	\$ Change	% Change
Amherst	7,611	7,840	229	3.0%	Boston	10,528	10,896	368	3.5%
Dartmouth	10,397	10,543	146	1.4%	Dartmouth	10,107	10,410	303	3.0%
Lowell	8,500	8,710	210	2.5%					
Board ³	FY22	FY23	\$ Change	% Change	Board ³	FY22	FY23	\$ Change	% Change
Amherst ¹	6,606	6,936	330	5.0%	Boston	5,830	6,000	170	2.9%
Dartmouth	5,428	5,591	163	3.0%	Dartmouth	5,428	5,591	163	3.0%
Lowell	5,070	5,220	150	3.0%					
Total	FY22	FY23	\$ Change	% Change	Total	FY22	FY23	\$ Change	% Change
Amherst	14,217	14,776	559	3.9%	Boston	16,358	16,896	538	3.3%
Dartmouth	15,825	16,134	309	1.9%	Dartmouth	15,535	16,001	466	3.0%
Lowell	13,570	13,930	360	2.7%					

¹ In prior years, the board rate presented was the Basic Meal Plan, formerly the default meal plan for student billing. The FY22 and FY23 board rate shows the Unlimited 250 Meal Plan, which is now the default meal plan and the meal plan used in the total cost of attendance used for packaging student financial aid.

² Room rates set by P3 Governing Board and are not subject to University Board approval.

³ Dining rates set by the University.

UNIVERSITY OF MASSACHUSETTS, AMHERST

STUDENT TUITION & FEE SCHEDULES

FY 2023 TUITION & MANDATORY FEES

FY 2023 NON-MANDATORY FEES

FY 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2023 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

**FY 2023 TUITION & MANDATORY FEES
SUMMARY TABLE**

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (resident)	\$15,791	\$15,791	\$16,186	\$395	2.5%
Undergraduate (regional)	\$28,842	\$29,379	\$30,468	\$1,089	3.7%
Undergraduate (non-resident)	\$35,779	\$36,316	\$37,405	\$1,089	3.0%
MANDATORY FEES					
Shared Infrastructure Technology Fee	\$400	\$400	\$500	\$100	25.0%
Student Activities	\$248	\$248	\$266	\$18	7.3%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (resident)	\$16,439	\$16,439	\$16,952	\$513	3.1%
Undergraduate (regional)	\$29,490	\$30,027	\$31,234	\$1,207	4.0%
Undergraduate (non-resident)	\$36,427	\$36,964	\$38,171	\$1,207	3.3%
RESIDENTS ONLY					
Rent and Residential Telecommunications	\$7,462	\$7,611	\$7,840	\$229	3.0%
Board (Default Unlimited Plan)*	\$6,476	\$6,606	\$6,936	\$330	5.0%
TOTAL RENT, TELCOM, BOARD	\$13,329	\$14,217	\$14,776	\$559	3.9%
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (resident)	\$29,768	\$30,656	\$31,728	\$1,072	3.5%
Undergraduate (regional)	\$42,819	\$44,244	\$46,010	\$1,766	4.0%
Undergraduate (non-resident)	\$49,756	\$51,181	\$52,947	\$1,766	3.5%
<u>GRADUATE</u>					
TUITION					
Graduate (resident)	\$14,778	\$14,778	\$15,148	\$370	2.5%
Graduate (regional)	\$27,723	\$28,219	\$29,225	\$1,006	3.6%
Graduate (non-resident)	\$33,040	\$33,536	\$34,542	\$1,006	3.0%
MANDATORY FEES					
Graduate Service Fee	\$1,270	\$1,270	\$1,270	\$0	0.0%
Graduate Health Fee	\$803	\$815	\$835	\$20	2.5%
Graduate Student Senate Fee	\$148	\$151.70	\$155.50	\$3.80	2.5%
TOTAL MANDATORY FEES & TUITION					
Graduate (resident)	\$16,999	\$17,015	\$17,409	\$393	2.3%
Graduate (regional)	\$29,944	\$30,456	\$31,486	\$1,030	3.4%
Graduate (non-resident)	\$35,261	\$35,773	\$36,803	\$1,030	2.9%

FY 2023 NON-MANDATORY FEES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
Commonwealth College Welcome Weekend Orientation (in AIA Fund)	\$90	\$90	\$90	\$0	0.0%
Campus Fee Fund :					
Continuing Ed Campus Fee / per credit	\$230	\$233	\$239	\$6	2.6%
Graduate Entering	\$507	\$507	\$507	\$0	0.0%
Undergraduate Senior Status	\$110	\$110	\$140	\$30	27.3%
Commonwealth College Fee (annual)	\$600	\$600	\$600	\$0	0.0%
New Student Enrollment Fee:					
Undergraduate	\$485	\$485	\$500	\$15	3.1%
Undergraduate - Stockbridge	\$377	\$377	\$400	\$23	6.1%
Undergraduate - Transfer	\$385	\$385	\$400	\$15	3.9%
Career Services:					
Credentials Packet (Undergraduate)	\$2	N/A	N/A	<i>Fee Eliminated</i>	
Credentials Packet (Graduate)	\$3	N/A	N/A	<i>Fee Eliminated</i>	
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	\$890	\$60	7.2%
6-11 credits	\$570	\$570	\$610	\$40	7.0%
1-5 Credits	\$310	\$310	\$332	\$22	7.1%
Graduate:					
5+ Credits	\$830	\$830	\$890	\$60	7.2%
1-4 Credits	\$440	\$440	\$470	\$30	6.8%
Graduate Registrar Fees:					
Continuous Enrollment Fee (was Program Fee)	\$285	\$285	\$285	\$0	0.0%
Readmission Fee	\$125	\$125	\$125	\$0	0.0%
Doctoral Hoods	\$75	\$75	\$75	\$0	0.0%
Graduate Student Senate					
Graduate Student Senate Fee (Continuous Enrollment Students)	\$74	\$75.85	\$77.75	\$2	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 program	\$895	\$910	\$935	\$25	2.7%
Registration Fee (UMass & Non-UMass programs) / annual program			\$1,350	<i>New Fee</i>	<i>New Fee</i>
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%

FY 2023 NON-MANDATORY FEES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
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%
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	\$375	\$380	\$390	\$10	2.6%
Student Services Fee (per semester) *	\$200	\$200	\$205	\$5	2.5%
Study Abroad Contingency Fee	\$25	\$0	\$0	<i>Fee Eliminated</i>	
Incoming Study Abroad Fee	\$0	\$910	\$935	\$25	2.7%
Isenberg School of Management Fee (annual)					
Undergraduate					
12+ Credits	\$1,000	\$1,000	\$1,100	\$100	10.0%
6-11 credits	\$690	\$690	\$760	\$70	10.1%
1-5 Credits	\$375	\$375	\$412	\$37	9.9%
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	\$1,000	\$1,000	\$0	0.0%
Student Health					
BASICS I (first offense)	\$100	\$100	\$100	\$0	0.0%
BASICS II (second offense) and BASICS III	\$175	\$175	\$175	\$0	0.0%
Student Health Benefit Plan					
Undergraduate Student Per Semester Plan (6 months)	\$843	\$992.50	TBD	TBD	TBD
Graduate Student Per Semester Plan (6 months)	\$1,480	\$1,597.50	TBD	TBD	TBD
Family Per Semester Plan (6 months)	\$3,000	\$3,000	TBD	TBD	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	\$85	\$85	\$0	0.0%
Advising Fee	\$150	\$150	\$150	\$0	0.0%
Prior Learning Fee 1 (1-15 credits)		\$900	\$900	\$0	0.0%
Prior Learning Fee 2 (up to 30 credits)		\$1,600	\$1,600	\$0	0.0%
Special Transcript Fee	\$75	\$405	\$415	\$10	2.5%
Vet Tech Program Majors Fee (annual)	\$500	\$0	\$0	\$0	0.0%

FY 2023 NON-MANDATORY FEES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
Vet Tech Lab Fee (per course)	\$0	\$95	\$95	\$0	0.0%
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 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
Auxiliary Services					
Basic Plan (224 meals per semester/annual)	\$5,867	\$5,984	\$6,283	\$299	5.0%
DC Unlimited Plan, no Dining \$, no Guest (annual rate)	\$5,970	\$6,090	\$6,395	\$305	5.0%
Unlimited 250 Plan (annual rate)	\$6,476	\$6,606	\$6,936	\$330	5.0%
Platinum Plan (200 meals per semester)/annual	\$5,726	\$5,840	\$6,132	\$292	5.0%
Gold Plan (100 meals per semester) / annual	\$3,118	\$3,180	\$3,339	\$159	5.0%
Commuter Plan (65 meals per semester) / annual	\$1,808	\$1,844	\$1,936	\$92	5.0%
Commuter Plan (155 meals per semester) / annual	\$3,959	\$4,038	\$4,240	\$202	5.0%
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)	\$6,902	\$7,040	\$7,392	\$352	5.0%
Summer/Winter YCMP (20 meals) *	\$225	\$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	\$45	\$15	50.0%
Readmission Fee	\$60	\$60	\$85	\$25	41.7%
Credit/Recording Fee	\$100	\$100	\$100	\$0	0.0%
Registration (credit)	\$47	\$50	\$60	\$10	20.0%
Registration (non-credit)	\$25	\$30	\$45	\$15	50.0%
Entering Fee (CPE matriculated UG students)	\$135	\$135	\$135	\$0	0.0%
Matriculating Student On-Site (per credit)					
Undergraduate In-State	\$445	\$482	\$495	\$13	2.7%
Undergraduate Out-of-State	\$788	\$788	\$824	\$36	4.6%
Graduate In-State	\$525	\$569	\$580	\$11	1.9%
Graduate Out-of-State	\$899	\$899	\$940	\$41	4.6%
Non-Matriculating Student On-Site (per credit)					
Undergraduate	\$445	\$482	\$495	\$13	2.7%
Graduate	\$525	\$569	\$580	\$11	1.9%
On-Line (per credit)					
Undergraduate	\$445	\$482	\$495	\$13	2.7%
Graduate	\$525	\$569	\$580	\$11	1.9%
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	\$10	\$4	66.7%
Accelerated Bachelor's Intent to Enroll	\$500	\$500	\$500	\$0	0.0%
Thesis, Dissertation, Special Programs (per credit)	\$195	\$195	\$230	\$35	17.9%
Bad Check Charge	\$0	\$0		Fee Eliminated	
Late Course Add Fee	\$60	\$60	\$75	\$15	25.0%
Parking					
All Students					
Green Lot	\$383	\$383	\$399	\$16	4.2%
Purple Lot	\$343	\$343	\$357	\$14	4.1%
Yellow Lot	\$279	\$279	\$291	\$12	4.3%
Employees and GEO					
Red Lot (Employee only)	\$151-\$628	\$151-\$628	\$151-\$628	\$0	0.0%
Blue Lot	\$107-\$535	\$107-\$535	\$107-\$535	\$0	0.0%
Green Lot	\$80-\$318	\$80-\$318	\$80-\$318	\$0	0.0%
Purple Lot	\$73-\$292	\$73-\$292	\$73-\$292	\$0	0.0%
Yellow Lot	\$53-\$94	\$53-\$94	\$53-\$94	\$0	0.0%
Other Permit Fees					

FY 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
Portable Permits	\$13	\$13	\$13	\$0	0.0%
Residence Halls & Family Housing:					
Family Housing					
1 Bedroom (per month)	\$912	\$930	\$958	\$28	3.0%
1 Bedroom Handicapped (per month)	\$912	\$930	\$958	\$28	3.0%
1 Bedroom IPO (furnished) (per month)	\$943	N/A	N/A		
1 Bedroom Handicapped (tenant not handicapped) (per month)	\$933	\$952	\$981	\$29	3.0%
2 Bedroom (per month)	\$1,066	\$1,087	\$1,120	\$33	3.0%
2 Bedroom Handicapped (per month)	\$1,066	\$1,087	\$1,120	\$33	3.0%
2 Bedroom Handicapped (tenant not handicapped) (per month)	\$1,087	\$1,109	\$1,142	\$33	3.0%
New Family Housing Complex Rent <u>per Semester</u> Fall/Spring (Aug 1-Jan 15/ Jan 16-June 30)			\$8,800	<i>New Fee</i>	<i>New Fee</i>
New Family Housing Complex Rent Summer (July 1 - July 31)			\$1,600	<i>New Fee</i>	<i>New Fee</i>
<u>Residence Halls</u>					
Standard Shared Room	\$7,176	\$7,320	\$7,540	\$220	3.0%
Single Room (includes Sylvan Double as Single Room)	\$9,544	\$9,735	\$10,027	\$292	3.0%
Sylvan Suite Singles	\$8,677	\$8,850	\$9,115	\$265	3.0%
Sylvan Suites Shared	\$6,524	\$6,655	\$6,855	\$200	3.0%
North Apartments Single Room (9 months)	\$13,155	\$13,418	\$13,821	\$403	3.0%
Commonwealth Honors College Residential Complex					
Single Apartments	\$13,155	\$13,418	\$13,821	\$403	3.0%
Single Suites	\$11,452	\$11,683	\$12,034	\$351	3.0%
Shared Apartments	\$9,891	\$10,089	\$10,392	\$303	3.0%
Single Rooms	\$10,411	\$10,620	\$10,939	\$319	3.0%
Suite Shared	\$8,611	\$8,784	\$9,048	\$264	3.0%
Shared Rooms	\$7,828	\$7,985	\$8,225	\$240	3.0%
Residential Telecommunications Fee	\$286	\$291	\$300	\$9	3.1%
Cancellation Fee	\$300-\$600	\$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	\$34	\$35	\$36	\$1	2.9%
Single Occupancy (including Sylvan Double as Single)	\$45	\$46	\$48	\$2	4.3%
Early Arrival Fee (per/diem)	\$60	\$60	\$60	\$0	0.0%
Residence Halls Surcharges (annual):					
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	\$500	\$500	\$500	\$0	0.0%
Economy Triple used for Single	\$1,600	\$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, FY22 fees are charged May through August 2022

FY 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY2021	FY2022	FY2023	\$ Change	% Change
Actual	Actual	Proposed	FY22-FY23	FY22-FY23

*** 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 2023 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
Application Fee:					
Undergraduate	\$85	\$85	\$90	\$5	5.9%
Graduate Instate	\$80	\$85	\$85	\$0	0.0%
Graduate Out-of-State	\$80	\$85	\$85	\$0	0.0%
Graduate International	\$80	\$85	\$85	\$0	0.0%
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	N/A	<i>Fee Eliminated</i>	
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 - \$1,000	\$0 to -\$500	0% to -33.33%
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)	\$501	\$509	\$522	\$13	2.6%
Summer Basic CE - per Week	\$63	\$64	\$66	\$2	3.1%
Family Fall (8/1 - 1/31)	\$1,328	\$1,348	\$1,382	\$34	2.5%
Family Spring (2/1 - 7/31)	\$1,328	\$1,348	\$1,382	\$34	2.5%
Graduate < 5 Credits per semester	\$401	\$407	\$417	\$10	2.5%
GEO < 5 Credits per semester	\$401	\$407	\$417	\$10	2.5%
CE > 3 credits / UWW / Program Fee per semester	\$401	\$407	\$417	\$10	2.5%

UNIVERSITY OF MASSACHUSETTS, BOSTON

STUDENT TUITION & FEE SCHEDULES

FY 2023 TUITION & MANDATORY FEES

FY 2023 NON-MANDATORY FEES

FY 2023 STUDENT FEES

FY 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2023 AUXILIARY CHARGES

FY 2023 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

**FY 2023 TUITION & MANDATORY FEES
SUMMARY TABLE**

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (resident)	\$14,187	\$14,187	\$14,542	\$355	2.5%
Undergraduate New England Regional ¹	\$24,827	\$24,827	\$25,448	\$621	2.5%
Undergraduate (non-resident)	\$34,649	\$34,649	\$35,515	\$866	2.5%
MANDATORY FEES					
Student Activities (Undergraduate)	\$110	\$130	\$130	\$0	0.0%
Technology	\$400	\$400	\$500	\$100	25.0%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (resident)	\$14,697	\$14,717	\$15,172	\$455	3.1%
Undergraduate (NER)	\$25,337	\$25,357	\$26,078	\$721	2.8%
Undergraduate (non-resident)	\$35,159	\$35,179	\$36,145	\$966	2.7%
RESIDENTS ONLY					
Standard Room ²	\$10,024	\$10,528	\$10,896	\$368	3.5%
Standard Board (meal plan)	\$5,717	\$5,830	\$6,000	\$170	2.9%
Subtotal	\$15,741	\$16,355	\$16,896		
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (resident)	\$30,438	\$31,072	\$32,068	\$996	3.2%
Undergraduate (NER)	\$41,078	\$41,712	\$42,974	\$1,262	3.0%
Undergraduate (non-resident)	\$50,900	\$51,534	\$53,041	\$1,507	2.9%
<u>GRADUATE</u>					
TUITION					
Graduate (resident)	\$18,433	\$18,433	\$18,894	\$461	2.5%
Graduate New England Regional ¹	\$32,258	\$32,258	\$33,064	\$806	2.5%
Graduate (non-resident)	\$35,980	\$35,980	\$36,879	\$899	2.5%
MANDATORY FEES					
Student Activities (Graduate)	\$105	\$105	\$105	\$0	0.0%
Technology	\$400	\$400	\$500	\$100	25.0%
TOTAL MANDATORY FEES & TUITION					
Graduate (resident)	\$18,938	\$18,938	\$19,499	\$561	3.0%
Graduate (NER)	\$32,763	\$32,763	\$33,669	\$906	2.8%
Graduate (non-resident)	\$36,485	\$36,485	\$37,484	\$999	2.7%

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.

⁴Not BOT-approved. Included for total cost calculation purposes only.

FY 2023 NON-MANDATORY FEES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
Program Fees					
College of Management (except online) > 60 credits or Graduate					
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%
College of Nursing (except online) > 60 credits or Graduate					
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%
College of Nursing, E&HS (except online) > 60 credits or Graduate					
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%
College of Education & Human Dev./GISD					
E-Portfolio Annual Fee - CEHD (MA)	\$50	\$50	\$50	\$0	0%
E-Portfolio One Time Fee - CEHD (PHD)	\$140	\$140	\$140	\$0	0%
E-Portfolio Fee - GISD (Vision Studies)	\$139	\$139	\$139	\$0	0%
E-Portfolio Fee - GISD (Rehabilitation Counseling)	\$197	\$197	\$197	\$0	0%
Boston Advanced Academic Consortium	\$500	\$500	\$500	\$0	0%
Laboratory Fees					
Anthropology	\$61	\$61	\$61	\$0	N/A
Art	\$112-\$168	\$112-\$168	\$112-\$168	\$0	N/A
Biology	\$100-\$140	\$100-\$140	\$100-\$140	\$0	N/A
Chemistry	\$0-\$140	\$0-\$140	\$0-\$140	\$0	N/A
Performing Arts	\$5-\$35	\$5-\$300	\$5-\$75	(\$225)	N/A
Computer Science	\$22-\$55	\$22-\$55	\$27-\$54	\$0	N/A
School for the Environment	\$50-\$300	\$50-\$150	\$50-\$150	\$0	N/A
Exercise & Health Sciences	\$55-\$67	\$55-\$67	\$55-\$67	\$0	N/A
College of Ed & Human Development	\$23-\$144	\$53-\$169	\$57-\$169	\$4	N/A
Modern Language	\$26-\$55	\$26-\$55	\$27-\$55	\$0	N/A
Latin American & Liberian Studies	\$26-\$55	\$26-\$55	\$27-\$28	\$0	N/A
Mathematics	\$20-\$55	\$12-\$55	\$12-\$55	\$0	N/A
Nursing	\$34-\$348	\$34-\$348	\$34-\$348	\$0	N/A
Physics	\$33-\$90	\$33-\$90	\$45-\$90	\$0	N/A
Engineering	\$60-\$120	\$60-\$120	\$60-\$120	\$0	N/A
Psychology	\$25-\$72	\$25-\$72	\$28-\$72	\$0	N/A
Admissions & Other Fees					
Admissions Processing - Undergraduate International	\$100	\$100	\$100	\$0	0%
Admissions Processing - Undergraduate (all other)	\$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 Summer I,II	\$100	\$100	\$100	\$0	0%
Admissions Processing - Graduate	\$75	\$75	\$75	\$0	0%
Admissions Processing - Graduate Deposit Fee	\$250	\$250	\$250	\$0	0%
Graduate Studies Program Fee	\$450	\$450	\$450	\$0	0%
International Student Fee	\$330	\$330	\$330	\$0	0%
One-time Fees					
CNHS New Student Background Check Fee	\$400	\$400	\$400	\$0	0%
Combined New Student Fee (undergraduate)	\$533	\$533	\$533	\$0	0%
Combined New Student Fee (graduate)			\$390	\$390	100%
Orientation Fee (undergraduate)	\$178	\$178	\$178	\$0	0%
Waivable Fees					
Mass Media	\$17	\$17	\$17	\$0	0%
MASSPIRG (2)	\$9	\$9	\$9	\$0	0%
Student Health Insurance Plan (SHIP) (3)	\$2,772	\$3,075	\$3,471	N/A	N/A
Student Renewable Energy Fund (opt-in)	\$7	\$7	\$7	\$0	0%
Facility Access Fees					

FY 2023 NON-MANDATORY FEES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
ID Card, New Student Fee (except online program)	\$75	\$75	\$75	\$0	0%
ID Card, Returning Student Fee (except online program)	\$12	\$12	\$12	\$0	0%
ID Card, Replacement	\$25	\$25	\$25	\$0	0%
Replacement ISC (one card)	\$25	\$25	\$25	\$0	0%
Financial Transaction Fees					
Late Payment	\$50	\$70	\$70	\$0	0%
Returned Check Fee (1)	\$30	\$30	\$30	\$0	0%
University payment plan Fee	\$47	\$47	\$47	\$0	0%
Flywire payment plan fee	\$30	\$30	\$30	\$0	0%
Registrar Fees					
Graduation Processing Fee	\$200	\$200	\$200	\$0	0%
Non-Matriculated Student Transcript Fee	\$10	\$10	\$10	\$0	0%
Reactivation Fee	\$60	\$60	\$0	(\$60)	-100%
University Diploma standard order (6-8 weeks delivery)	\$40	\$45	\$45	\$0	0%
University Diploma rush order (CeDiploma or paper, 10-14 business days)	\$60	\$60	\$60	\$0	0%
Global Programs Support Fees					
Study Abroad Fee	\$100	\$100	\$100	\$0	0%
Education Abroad Engagement Fee	\$20	\$20	\$20	\$0	0%
F-1 CPT/OPT Application Fee	\$125	\$125	\$125	\$0	0%

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 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
<u>Special Program Fees</u>					
<u>Substantially-Online Programs & Certificates</u>					
Assistive Technology (Certificate)	N/A	N/A	\$467	\$467	100%
Autism Endorsement (Certificate)	N/A	N/A	\$575	\$575	100%
Cortical Cerebrl Vis Imp (Certificate)	N/A	N/A	\$467	\$467	100%
Counseling (MEd)	N/A	N/A	\$575	\$575	100%
Critical & Creative Thinking (Certificate)	N/A	N/A	\$575	\$575	100%
Critical & Creative Thinking (MA)	N/A	N/A	\$575	\$575	100%
Instruct Lrning Design (Certificate)	N/A	N/A	\$575	\$575	100%
Instructional Design (MEd)	N/A	N/A	\$575	\$575	100%
Instructnl Tech Desgn (Certificate)	N/A	N/A	\$575	\$575	100%
Mental Health Counseling (MS)	N/A	N/A	\$575	\$575	100%
Orientation & Mobility (Certificate)	N/A	N/A	\$467	\$467	100%
Rehab Counsl Post Mstr (Certificate)	N/A	N/A	\$575	\$575	100%
Rehabilitation Counseling (MS)	N/A	N/A	\$575	\$575	100%
Transition Leadership (Certificate)	N/A	N/A	\$575	\$575	100%
Vision Rehabilitation Therapy (Certificate)	N/A	N/A	\$467	\$467	100%
Vision Studies (Certificate)	N/A	N/A	\$575	\$575	100%
Applied Linguistics (MA)	N/A	N/A	\$575	\$575	100%
History (MA)	N/A	N/A	\$575	\$575	100%
Translation -Spanish (Certificate)	N/A	N/A	\$410	\$410	100%
Business Administration(MBA-OPM)	N/A	N/A	\$695	\$695	100%
Business Analytics (Certificate)	N/A	N/A	\$575	\$575	100%
Cybersecurity (Certificate)	N/A	N/A	\$575	\$575	100%
Healthcare Informatics (Certificate)	N/A	N/A	\$575	\$575	100%
Accelerated Nursing (BS)	\$577	\$577	\$577	\$577	100%
Family Nurse Practioner(Certificate)	N/A	N/A	\$575	\$575	100%
Geron/Adult Nur Pract (Certificate)	N/A	N/A	\$575	\$575	100%
Nurse Educator (Certificate)	N/A	N/A	\$575	\$575	100%
Nursing Practice (DNP)	N/A	N/A	\$575	\$575	100%
Nursing RN to Bachelor of Science (BS)	\$370	\$370	\$370	\$370	100%
Gender,Ldrship,PubPol (Certificate)	N/A	N/A	\$575	\$575	100%
Gerontology (Certificate)	N/A	N/A	\$575	\$575	100%
Gerontology (Grad Cert)	N/A	N/A	\$410	\$410	100%
Gerontology (MS)	N/A	N/A	\$575	\$575	100%
Global Affairs (BA)	N/A	N/A	\$410	\$410	100%
Sustain Marine Aquacult (Certificate)	N/A	N/A	\$410	\$410	100%
Sustain Marine Aquacult (Certificate - non-credit)	N/A	N/A	\$250	\$250	100%
Infant Parent Mental Health Graduate Certificate					
Program fee	\$11,000	\$11,000	\$11,000	\$0	0%
Application fee	\$100	\$100	\$100	\$0	0%
<u>Other Fees</u>					
One-time New Student Fee	N/A	N/A	\$100	\$100	100%
Mandatory Technology Fee	N/A	N/A	\$21	\$21	100%
ABSN Technology & Book Fee	\$1,400	\$1,750	\$1,750	\$0	0%
CNHS New Student Background Check Fee	\$400	\$400	\$400	\$0	0%
<u>International Partnerships</u>					
Shorelight American Collegiate Live (online) per credit	\$860	\$860	\$860	\$0	0%
<u>Undergraduate Pre-Enrollment</u>					
Dual Enrollment					
On-campus/UMB staff, per credit (12 student minimum)	N/A	\$264	\$264	\$0	0%
Off-campus/UMB staff per credit (12 student minimum)	N/A	\$214	\$214	\$0	0%
Off-campus/Local staff per credit (12 student minimum)	N/A	\$61	\$61	\$0	0%
Pathways Program per credit	N/A	\$269	\$269	\$0	0%

FY 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
<u>Professional Development (non-credit)</u>					
Continuing Education - non credit program	\$0 - \$6,750	\$0 - \$12,000	\$0 - \$12,000	\$0	0%
Continuing Education - Fees					
Summer Services Fees (Matriculated F2F per Term)	\$245	\$0	\$0	\$0	0%
Summer Services Fees (Matriculated F2F per credit)	N/A	\$10	\$10	\$0	0%
Summer Services Fees (Non Matriculated F2F, all online per credit, non-refur)	\$10	\$10	\$10	\$0	0%
<u>Summer/Winter Sessions</u>					
Service Fee (non-refundable)	N/A	\$10	\$10	\$0	0%
Matriculated					
Undergraduate					
Resident (Fall/Spring)	\$605	\$605	\$0	(\$605)	-100%
Non-resident (Fall/Spring)	\$1,458	\$1,458	\$0	(\$1,458)	-100%
Resident (Summer/Winter)	\$470	\$470	\$470	\$0	0%
Non-resident (Summer/Winter)	\$850	\$850	\$850	\$0	0%
Graduate					
Resident (Fall/Spring)	\$783	\$783	\$0	(\$783)	-100%
Non-resident (Fall/Spring)	\$1,515	\$1,515	\$0	(\$1,515)	-100%
Resident (Summer/Winter)	\$625	\$625	\$625	\$0	0%
Non-resident (Summer/Winter)	\$950	\$950	\$950	\$0	0%
Non-matriculated					
Undergraduate (Fall/Spring)	\$410	\$410	\$0	(\$410)	-100%
Undergraduate (Summer/Winter)	\$350	\$350	\$350	\$0	0%
Graduate	\$575	\$575	\$0	(\$575)	-100%
Continuing Education - Online (except online programs)					
Undergraduate Matriculated	\$410	\$410	\$0	(\$410)	-100%
Undergraduate Non-matriculated (Fall/Spring)	\$410	\$410	\$0	(\$410)	-100%
Undergraduate Non- Matriculated(Winter/Summer)	\$350	\$350	\$0	(\$350)	-100%
Graduate	\$575	\$575	\$0	(\$575)	-100%
Graduate - College of Management ONLY	\$575	\$575	\$575	\$0	0%

FY 2023 STUDENT FEES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
Auxiliaries					
Parking & Transportation					
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	\$300	\$300	\$0	0%
Parking, Semester pass (Bayside, Faculty/Staff)	\$576	\$504	\$504	\$0	0%
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 pKWTH	N/A	\$0.22	\$0.22	\$0	0%
Marine Ops - Small Boat Rental (per hour)	\$70	\$80	\$90	\$10	13%
Marine Ops - Dockage Fees (per foot)	\$2	\$2	\$3	\$1	50%
Marine Ops - Mooring Fees (per foot)	\$1	\$2	\$2	\$0	0%
Marine Ops - M/V Columbia Point (2 hours)	\$760	\$780	\$840	\$60	8%
Marine Ops - Fox Point Pavillion Rental (per reservation)	\$65	\$70	\$80	\$10	14%
Marine Ops - Harbor Walk Bench	\$1,100	\$1,400	\$1,600	\$200	14%
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	\$1,600	\$200	14%
Marine Ops - Special Events	\$2,600	\$2,600	\$2,600	\$0	0%
Housing (P3 Rates)					
Single (community bath), Academic	\$11,560	\$12,176	\$12,624	\$448	4%
Single (private bath), Academic	\$12,864	\$13,504	\$14,020	\$516	4%
Large single (private bath), Academic	\$13,104	\$13,760	\$14,312	\$552	4%
Double (community bath), Academic	\$10,024	\$10,528	\$10,896	\$368	3%
Large Double Community Bath	\$10,200	\$10,712	\$11,032	\$320	3%
Double (private bath), Academic	\$11,720	\$12,304	\$12,792	\$488	4%
Double (private bath), Large Double Private Bath	\$11,952	\$12,552	\$13,056	\$504	4%
Triple (private bath), Academic	\$9,512	\$9,992	\$10,296	\$304	3%
Quad (private bath), Academic	\$9,152	\$9,608	\$9,848	\$240	2%
Dining					
Neighborhood A (25 meal block per year)	\$300	\$320	\$330	\$10	3%
Neighborhood B (50 meal block per year)	\$575	\$615	\$630	\$15	2%
Neighborhood C (100 meal block per year)	N/A	\$1,135	\$1,165	\$30	3%
Points Plan A (Harbor Plan - 100 Dining points +1 Bonus Swipe)	N/A	\$100	\$100	\$0	0%
Points Plan B (Beacons Plan - 175 Dining points +2 Bonus Swipe)	N/A	\$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	\$400	\$410	\$10	3%
Combo B - 50 Meal Block per year plus 100 dining points	\$665	\$685	\$705	\$20	3%
Combo C - 100 Meal Block per year plus 300 Dining Points	N/A	\$1,390	\$1,430	\$40	3%
Residential Meal Plan A - 19 Meals/week plus 175 Dining Points	\$5,550	\$5,830	\$6,000	\$170	3%
Residential Meal Plan B - 14 Meals/week plus 750 Dining Points	\$5,550	\$5,830	\$6,000	\$170	3%

FY 2023 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
Other Fees (Not Student Related)					
Theatre Arts - Dance Tickets	NA	NA	\$5.00	\$5	100%
Theatre Arts - Theatre Tickets	NA	NA	\$12.00	\$12	100%
Athletics - Beacon Fitness Ctr Employees & Alumni - Annual	\$216	\$216	\$216	\$0	0%
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 - Ice Rink Rental - per hour	\$250	\$250	\$250	\$0	0%
Athletics - Softball Field Rental - Per game	\$275	\$275	\$275	\$0	0%
Athletics - Facility Staff Member	\$49	\$49	\$49	\$0	0%
Athletics - Additional Ice Rink Attendant - per hour	\$16	\$16	\$16	\$0	0%
Athletics - Student Employee - per hour	\$14	\$14	\$15	\$1	7%
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	\$0	0%
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	\$0	0%
Distance Learning Ctr - Audio Visual Production Services (per hour)	\$12 - \$163	\$12 - \$163	\$12 - \$163	\$0	0%
Joiner Center - Sale of Center Publications/Videos	\$12 - \$31	\$12 - \$31	\$12 - \$31	\$0	0%
Joiner Center - Writer's Workshop Fee (one week/two weeks)	\$250 - \$500	\$250 - \$500	\$250 - \$500	\$0	0%
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	\$0	0%
Library - Book Replacement Fee	\$1.03 - \$1,030	\$1.03 - \$1,030	\$1.03 - \$1,030	\$0	0%
Library - Book Replacement Processing Costs	\$30	\$30	\$30	\$0	0%
Library - 3 Hour Reserve Materials Late Fee	\$0.10 - \$150	\$0.10 - \$150	\$0.10 - \$150	\$0	0%
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	\$0.15 - \$15	\$0.15 - \$15	\$0.15 - \$15	\$0	0%
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	\$700	\$700	\$0	0%
Library - Lost Loaner Laptop charger/adaptor replacement fee	\$150	\$25	\$25	\$0	0%
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	N/A	\$225	\$225	\$0	0%
Library -Chromebook Power cord Replacement Fee	N/A	\$20	\$20	\$0	0%
Campus Center Vendor Fee (charged to vendor)	\$133 - \$200	\$133 - \$200	\$133 - \$200	\$0	\$0
Event Services - All Room Rental Charges	\$155 - \$5,124	\$155 - \$5,124	\$155 - \$5,124	\$0	\$0
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	\$0	\$0
Public Safety, Parking Fines - category 2	\$25 - \$35	\$25 - \$35	\$25 - \$35	\$0	\$0
Public Safety, Police details	\$50 - \$60	\$50 - \$60	\$50 - \$60	\$0	\$0
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	N/A	\$75	\$75	\$0	0%
CEHD - Summer Equity Institute	N/A	N/A	\$1,795	\$1,795	100%
Nantucket Field Station - Gouin Village Apartments (non UMB users - per night, per guest)	\$40	\$60	\$0	(\$60)	-100%

FY 2023 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY22-FY23	% Change FY22-FY23
Other Fees (Not Student Related)					
Nantucket Field Station - Gouin Village Apartments (UMB users - per night, per guest)	\$25	\$30	\$0	(\$30)	-100%
Nantucket Field Station - Gouin Village Apartments (Non Profit - per night)	\$30	\$45	\$0	(\$45)	-100%
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%
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%
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	\$1,075	\$50	5%
WUMB, Inn 2 floor - Member	\$975	\$1,100	\$1,150	\$50	5%
WUMB, Inn 2 floor Double Bed, Tree Line Cabin- Member	\$1,075	\$1,125	\$1,175	\$50	4%
WUMB, College Row and Dock Road (2 person)	\$1,025	\$1,075	\$1,125	\$50	5%
WUMB, Inn, 3 floor and Cottages - Non member	\$975	\$1,100	\$1,150	\$50	5%
WUMB, Inn 2 floor - Non member	\$1,075	\$1,175	\$1,225	\$50	4%
WUMB, Inn 2 floor Double Bed, Tree Line Cabin- Non member	\$1,050	\$1,200	\$1,275	\$75	6%
WUMB, College Row and Dock Road (2 person) -Non-Member	\$1,025	\$1,150	\$1,200	\$50	4%
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	\$650	\$25	4%
WUMB, Blues Music Weekend Priv single Member	\$825	\$825	\$850	\$25	3%
WUMB, Blues Music Weekend Priv single Non-Member	\$875	\$875	\$925	\$50	6%
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	\$650	\$25	4%
WUMB, Virtual Sessions - Member	N/A	\$425	\$425	\$0	0%
WUMB, Virtual Sessions - Non Member	N/A	\$500	\$500	\$0	0%
SAMW 25th Anniversary Concert - Orchestra w/reception - Member	N/A	\$250	\$0	(\$250)	-100%
SAMW 25th Anniversary Concert - Orchestra - Member	N/A	\$100	\$0	(\$100)	-100%
SAMW 25th Anniversary Concert - Loge - Member	N/A	\$75	\$0	(\$75)	-100%
SAMW 25th Anniversary Concert - Balcony-Member	N/A	\$60	\$0	(\$60)	-100%
SAMW 25th Anniversary Concert - Balcony Rear-Member	N/A	\$40	\$0	(\$40)	-100%
SAMW 25th Anniversary Concert - Orchestra w/reception - Non-Member	N/A	\$250	\$0	(\$250)	-100%
SAMW 25th Anniversary Concert - Orchestra - Non-Member	N/A	\$125	\$0	(\$125)	-100%
SAMW 25th Anniversary Concert - Loge - Non-Member	N/A	\$100	\$0	(\$100)	-100%
SAMW 25th Anniversary Concert - Balcony-Non-Member	N/A	\$80	\$0	(\$80)	-100%
SAMW 25th Anniversary Concert - Balcony Rear-Non-Member	N/A	\$60	\$0	(\$60)	-100%

UNIVERSITY OF MASSACHUSETTS, DARTMOUTH

STUDENT TUITION & FEE SCHEDULES

FY 2023 TUITION & MANDATORY FEES

FY 2023 NON-MANDATORY FEES

FY 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2023 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

**FY 2023 TUITION & MANDATORY FEES
SUMMARY TABLE**

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY2022-23	% Change FY2022-23
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (resident)	\$13,833	\$13,833	\$14,179	\$346	2.5%
Undergraduate (non-resident)	\$29,578	\$29,578	\$30,317	\$739	2.5%
Undergraduate (regional & proximity)	\$18,981	\$18,981	\$19,455	\$475	2.5%
MANDATORY FEES					
Student Fee	\$175	\$175	\$175	\$0	0.0%
Technology Fee	\$400	\$400	\$500	\$100	25.0%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (resident)	\$14,408	\$14,408	\$14,854	\$446	3.1%
Undergraduate (non-resident)	\$30,153	\$30,153	\$30,992	\$839	2.8%
Undergraduate (regional & proximity)	\$19,556	\$19,556	\$20,130	\$575	2.9%
RESIDENTS ONLY					
Standard Room	\$10,094	\$10,397	\$10,543	\$146	1.4%
Standard Board	\$5,233	\$5,428	\$5,591	\$163	3.0%
Residential Telecommunications					
Subtotal	\$15,327	\$15,825	\$16,134	\$309	1.9%
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (resident)	\$29,735	\$30,233	\$30,987	\$754	2.5%
Undergraduate (non-resident)	\$45,480	\$45,978	\$47,126	\$1,148	2.5%
Undergraduate (regional & proximity)	\$34,882	\$35,381	\$36,264	\$883	2.5%
<u>GRADUATE</u>					
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	\$29,500	\$839	2.9%
Graduate Law School (non-resident)	\$37,569	\$37,569	\$38,600	\$1,031	2.7%
Graduate Law School (regional & proximity)	\$30,587	\$30,587	\$31,500	\$913	3.0%
MANDATORY FEES					
Student Fee	\$175	\$175	\$175	\$0	0.0%
Technology Fee	\$400	\$400	\$500	\$100	25.0%
TOTAL MANDATORY FEES & TUITION					
Graduate (resident)	\$16,965	\$16,965	\$17,065	\$100	0.6%
Graduate (non-resident)	\$30,153	\$30,153	\$30,253	\$100	0.3%
Graduate (regional & proximity)	\$21,460	\$21,460	\$21,560	\$100	0.5%
Graduate Law School (resident)	\$29,236	\$29,236	\$30,175	\$939	3.2%
Graduate Law School (non-resident)	\$38,144	\$38,144	\$39,275	\$1,131	3.0%
Graduate Law School (regional & proximity)	\$31,162	\$31,162	\$32,175	\$1,013	3.3%
RESIDENTS ONLY					
Standard Room	\$10,094	\$10,397	\$10,543	\$146	1.4%
Standard Board	\$5,233	\$5,428	\$5,504	\$76	1.4%
Subtotal	\$15,327	\$15,825	\$16,047	\$222	1.4%
TOTAL TUITION AND ROOM & BOARD					
Graduate (resident)	\$32,291	\$32,790	\$33,111	\$322	1.0%
Graduate (non-resident)	\$45,480	\$45,978	\$46,299	\$322	0.7%
Graduate (regional & proximity)	\$36,787	\$37,285	\$37,606	\$322	0.9%

FY 2023 NON-MANDATORY FEES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY2022-23	% Change FY2022-23
Administrative Fees					
Orientation (Freshmen)	\$270	\$270	\$275	\$5	2.0%
Orientation International students	\$260	\$260	\$260	\$0	0.0%
Orientation Transfer Students	\$150	\$150	\$150	\$0	0.0%
Graduation Fee (final semester only)	\$185	\$195	\$195	\$0	0.0%
Predictive Testing & Prep Mat Fee (Formerly Nursing Exam Prep Fee)	\$445	\$466	\$466	\$0	0.0%
Nursing Exam Security Software Fee (BS Students Sophomore-Senior)	\$103	\$65	\$75	\$10	15.4%
Nursing PCE Fee	\$123	\$113	\$123	\$10	8.8%
Nursing Exam Test Proctoring Software Fee		\$170	\$170	\$0	0.0%
MLS Exam Test Proctoring Software Fee		\$103	\$170	\$67	65.0%
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	\$2,737	\$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	\$468	\$0	0.0%
Visual & Performing Arts Practicum Fee	\$1,087	\$1,087	\$1,087	\$0	0.0%
Business Major Fee	\$496	\$496	\$496	\$0	0.0%
Nursing Major Fee	\$1,066	\$1,172	\$1,289	\$117	10.0%
Nursing Major Fee-MLS	\$1,021	\$1,123	\$1,245	\$122	10.9%
Engineering Major Fee	\$1,350	\$1,350	\$1,350	\$0	0.0%
SMAST Major Fee	\$843	\$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	\$1,200	\$31	2.7%
Honors College Fee	\$300	\$300	\$300	\$0	0.0%
Other Fees (Not Student Related)					
Applied Music (private music lessons)	\$777	\$777	\$800	\$23	3.0%
Alumni Fee**(final semester only)	\$20	\$20	\$20	\$0	2.0%

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 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY2022-23	% Change FY2022-23
AUXILIARY CHARGES					
Room and Board:					
Double Room,A/C:OG/PD	\$10,094	\$10,397	\$10,543	\$146	1.4%
Cedar Dell "A" Room	\$10,476	\$10,790	\$10,941	\$151	1.4%
Cedar Dell	\$10,659	\$10,979	\$11,133	\$154	1.4%
New Apartments-4 Bedroom	\$11,134	\$11,468	\$11,629	\$161	1.4%
New Apartments-2 Bedroom	\$12,133	\$12,497	\$12,672	\$175	1.4%
Single,2-bed/1 bath a/c:Woodlands	\$11,633	\$11,982	\$12,150	\$168	1.4%
Quad - Ivy/Graduate Student (monthly rate)	n/a	\$0	\$700	\$700	100.0%
Triple - Ivy/Graduate Student (monthly rate)	n/a	\$0	\$800	\$800	100.0%
Double - Ivy/Grad Student (monthly rate)	n/a	\$0	\$900	\$900	100.0%
Unlimited Dining Plan	\$5,233	\$5,428	\$5,591	\$163	3.0%
Unlimited Plus Dining Plan	\$5,583	\$5,778	\$5,951	\$173	3.0%
Apartment Dining Plan	\$4,210	\$4,272	\$4,400	\$128	3.0%
Apartment Plus Dining Plan	\$4,710	\$4,772	\$4,915	\$143	3.0%
Apartment Max Dining Plan	\$5,210	\$5,272	\$5,430	\$158	3.0%
Commuter Dining Plan	\$600	\$600	\$618	\$18	3.0%
Commuter Plus Dining Plan	\$1,000	\$1,000	\$1,030	\$30	3.0%
Commuter Max Dining Plan	\$1,500	\$1,500	\$1,545	\$45	3.0%
<u>P3 Governing Board Approved</u>					
Balsam/Spruce - Single Occupancy	\$10,876	\$11,203	\$11,540	\$337	3.0%
Balsam/Spruce - Double Occupancy	\$9,812	\$10,107	\$10,410	\$303	3.0%
Parking:					
Reserved	\$550	\$550	\$550	\$0	0.0%
Summer Session	\$25	\$25	\$25	\$0	0.0%
Part-Time Students	\$55	\$55	\$55	\$0	0.0%
Part-Time Faculty & Staff	\$82.50	\$82.50	\$85	\$3	3.0%
Full-Time Students	\$165	\$165	\$170	\$5	3.0%
Full-Time Students - 1/2 term	\$82.50	\$82.50	\$85	\$3	3.0%
Resident Students	\$215	\$215	\$220	\$5	2.3%
Resident Students	\$108	\$108	\$110	\$3	2.3%
Program Fees (Continuing Education)					
Undergraduate Tuition (per credit)	\$352	\$332	\$342	\$10	3.0%
Undergraduate Tuition Accelerated BS in Nursing (per credit)	\$683	\$631	\$650	\$19	3.0%
Undergraduate Tuition On-Line (per credit)	\$352	\$332	\$342	\$10	3.0%
Graduate Tuition EDU & MAT program (per credit)	\$414	\$390	\$402	\$12	3.0%
Graduate Tuition ABA Program (per credit)	\$494	\$466	\$480	\$14	3.0%
Graduate MBA &MPP Program (per credit)	\$587	\$553	\$570	\$17	3.0%
Graduate MS in Computer Science Program	\$587	\$553	\$570	\$17	3.0%
Graduate MS in Nursing (per credit)	\$587	\$553	\$570	\$17	3.0%
On-line Technology Fee	\$150	\$150	\$150	\$0	0.0%

FY 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY2022-23	% Change FY2022-23
Application Fee	\$60	\$60	\$62	\$2	3.0%
Application Fee-ESL/ALCI	\$60	\$0	\$0	\$0	0.0%
ALCI/ESL Program Fee (per semester)	\$6,312	\$6,312	\$0	(\$6,312)	-100.0%
Non-Credit Tuition	\$15-\$2,000	\$15-\$2,000	\$15-\$2,000	\$0	0.0%
Campus Center (per credit)	\$5	\$5	\$5	\$0	3.0%
Library Fee (per credit)	\$6	\$6	\$6	\$0	3.0%
Registration (flat fee)	\$30	\$30	\$31	\$1	3.0%
Prior Learning Workshops	\$2,324	\$2,324	\$2,324	\$0	0.0%
College Fees	\$426-\$1,350	\$426-\$1,350	\$426-\$1,350	\$0	0.0%
Student Teacher Practicum Fee (per 3 credits)	\$800	\$750	\$773	\$23	3.0%

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

FY 2023 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY2022-23	% Change FY2022-23
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 2023 TUITION & MANDATORY FEES

FY 2023 NON-MANDATORY FEES

FY 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2023 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

**FY 2023 TUITION & MANDATORY FEES
SUMMARY TABLE**

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY 2022-23	% Change FY 2022-23
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (in state)	\$15,078	\$15,078	\$15,462	\$384	2.5%
Undergraduate (out-of-state)	\$33,004	\$33,004	\$33,830	\$826	2.5%
Undergraduate (New England Regional)	\$26,618	\$26,618	\$27,444	\$826	3.1%
MANDATORY FEES					
Campus Technology Fee (Undergraduate and Graduate)	\$400	\$400	\$500	\$100	25.0%
Student Activity Fee (Undergraduate& Graduate)	\$220	\$220	\$220	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (in state)	\$15,698	\$15,698	\$16,182	\$484	3.1%
Undergraduate (out-of-state)	\$33,624	\$33,624	\$34,550	\$926	2.8%
Undergraduate (New England Regional)	\$27,238	\$27,238	\$28,164	\$926	3.4%
RESIDENTS ONLY					
Average Residence Hall Rent	\$8,820	\$8,500	\$8,710	\$210	2.5%
Average Board (Gold Plan)	\$5,070	\$5,070	\$5,220	\$150	3.0%
SUBTOTAL	\$13,890	\$13,570	\$13,930	\$360	2.7%
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (in state)	\$29,588	\$29,268	\$30,112	\$844	2.9%
Undergraduate (out-of-state)	\$47,514	\$47,194	\$48,480	\$1,286	2.7%
Undergraduate (New England Regional)	\$41,128	\$40,808	\$42,094	\$1,286	3.2%
<u>GRADUATE</u>					
TUITION					
Graduate (in state)*	\$14,590	\$14,590	\$14,956	\$366	2.5%
Graduate (out-of-state)*	\$26,370	\$26,370	\$27,030	\$660	2.5%
Graduate (New England Regional)*	\$22,401	\$22,401	\$23,062	\$661	3.0%
MANDATORY FEES					
Campus Technology Fee (Undergraduate and Graduate)	\$400	\$400	\$500	\$100	25.0%
Student Activity Fee (Undergraduate& Graduate)	\$220	\$220	\$220	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Graduate (in state)	\$15,210	\$15,210	\$15,676	\$466	3.1%
Graduate (out-of-state)	\$26,990	\$26,990	\$27,750	\$760	2.8%
Graduate (New England Regional)	\$23,021	\$23,021	\$23,782	\$761	3.3%
RESIDENTS ONLY					
Average Residence Hall Rent	\$8,820	\$8,500	\$8,710	\$210	2.5%
Average Board (Gold Plan)	\$5,070	\$5,070	\$5,220	\$150	3.0%
SUBTOTAL	\$13,890	\$13,570	\$13,930	\$360	2.7%
TOTAL TUITION AND ROOM & BOARD					
Graduate (in state)	\$29,100	\$28,780	\$29,606	\$826	2.9%
Graduate (out-of-state)	\$40,880	\$40,560	\$41,680	\$1,120	2.8%
Graduate (New England Regional)	\$36,911	\$36,591	\$37,712	\$1,121	3.1%

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

FY 2023 NON-MANDATORY FEES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY 2022-23	% Change FY 2022-23
<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 \$15,000	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***	Up to \$308	Up to \$308	Up to \$308	\$0	0.0%
Advanced Health Assessment Fee (Graduate) ****	\$450	\$500	\$500	\$0	0.0%
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	\$850	\$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	\$200	\$100	100.0%
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 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY 2022-23	% Change FY 2022-23
AUXILIARY CHARGES					
Auxiliary Fees					
<u>Residence Halls Rooms:****</u>					
<u>Rate A</u>	\$8,820	\$8,500	\$8,710	\$210	2.5%
Concordia Double	\$8,820	\$8,500	\$8,710	\$210	2.5%
Fox Triple /Quad	\$8,820	\$8,500	\$8,710	\$210	2.5%
Leitch & Bourgeois Quad	\$8,820	\$8,500	\$8,710	\$210	2.5%
Fox Double	\$8,970	\$8,500	\$8,710	\$210	2.5%
Fox Enhanced Double	\$9,100	\$8,500	\$8,710	\$210	2.5%
Leitch & Bourgeois Double	\$9,100	\$8,500	\$8,710	\$210	2.5%
ICC Double (& Quad)	\$9,740	\$8,500	\$8,710	\$210	2.5%
Concordia Singles	\$10,870	\$8,500	\$8,710	\$210	2.5%
Fox Special Single	\$10,870	\$8,500	\$8,710	\$210	2.5%
<u>Rate B</u>	\$10,460	\$9,100	\$9,330	\$230	2.5%
Sheehy Suite	\$10,460	\$9,100	\$9,330	\$230	2.5%
Donahue Suites	\$10,870	\$9,100	\$9,330	\$230	2.5%
<u>Rate C</u>	\$11,430	\$10,100	\$10,350	\$250	2.5%
Riverview Suites East	\$11,430	\$10,100	\$10,350	\$250	2.5%
University Suites	\$11,540	\$10,100	\$10,350	\$250	2.5%
<u>Rate D</u>	\$10,460	\$11,000	\$11,280	\$280	2.5%
River Hawk Village Studio	\$10,460	\$11,000	\$11,280	\$280	2.5%
River Hawk Village Standard	\$11,950	\$11,000	\$11,280	\$280	2.5%
Riverview Suites West	\$11,740	\$11,000	\$11,280	\$280	2.5%
<u>Rate E</u>	\$12,200	\$11,300	\$11,580	\$280	2.5%
River Hawk Village Delux	\$12,200	\$11,300	\$11,580	\$280	2.5%
River Hawk Village Delux Townhouse	\$12,200	\$11,300	\$11,580	\$280	2.5%
1301 Middlesex	\$11,950	N/A		N/A	N/A
Merrimack Single	\$11,950	N/A		N/A	N/A
Merrimack Double	\$11,740	N/A		N/A	N/A
Meal Plan Options:					
Platinum Unlimited + 350 points and 8 guest meals	\$5,250	N/A	N/A	N/A	N/A
Silver 125 Block Meals and \$450 points and 5 guest meals	\$4,560	N/A	N/A	N/A	N/A
Gold Unlimited + 200 points and 8 guest meals	\$5,070	\$5,070	\$5,220	\$150	3.0%
Unlimited + 400 points			\$5,520	N/A	N/A
Apartment Meal Plan		\$4,200	\$4,320	\$120	2.9%
Program Fees (Continuing Education)					
Continuing Studies/Corporate Education Tuition/Fees: *					
Undergrad Tuition per Credit Hour face to face**	Up to \$360	Up to \$360	Up to \$400	\$40	11.1%
Undergrad Tuition per Credit Hour Haverhill Campus			Up to \$400		
Undergrad Tuition per Credit Hour (Corporate/Custom)	Up to \$450	Up to \$450	Up to \$450	\$0	0.0%
Undergrad Tuition per credit hour (Online)	Up to \$400	Up to \$400	Up to \$400	\$0	0.0%
Undergrad Tuition per credit hour (Online Business Courses)	Up to \$425	Up to \$400	Up to \$400	\$0	0.0%
Graduate Tuition per Credit Hour face to face	Up to \$630	Up to \$630	Up to \$650	\$20	3.2%
Graduate Tuition per credit hour (Online)	Up to \$630	Up to \$630	Up to \$650	\$20	3.2%
Graduate Tuition per credit hour (Business Online & Face to Face)	Up to \$725	Up to \$725	Up to \$725	\$0	0.0%
Graduate Tuition per credit hour (Education)	Up to \$500	Up to \$500	Up to \$525	\$25	5.0%
Graduate Tuition (IT & Engineering Courses)	Up to \$625	Up to \$625	Up to \$650	\$25	4.0%

FY 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY 2022-23	% Change FY 2022-23
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 (once per term)	\$30	\$30	\$30	\$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	N/C	\$400	\$0	0.0%
b Adjunct Faculty	\$125	N/C	\$130	\$5	4.0%
c Part-time Staff	\$175	N/C	\$175	\$0	0.0%
d Reserved/Designated Parking	\$1,500	N/C	\$1,400	(\$100)	-6.7%
e Resident Students	Up to \$450	Up to \$450	\$450	\$0	0.0%
f Commuter Students	Up to \$450	Up to \$450	\$450	\$0	0.0%
g RA/TA's	N/C	N/C	\$120	\$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.

+Application Fees differ by academic level and academic program, up to \$75.

**** Waived for Resident Advisors.

Parking fee notes:

a Faculty/Staff; Effective 12/7/18 \$375, Effective 9/1/19 \$400

b Adjunct Faculty; \$65 per semester in effective Spring 2021.

d Eff 9/1/20: Cabinet members, \$1,500; Salem Lot and East Courtyard Preferred, \$800; Tremont, Cabot & West Courtyards Preferred, \$700

e,f Students accepted prior to 2014-15 academic year, \$385; students accepted in 2014-15, \$441

and new students accepted AFTER 2014-15, \$450 (no increase)

Parking Fines: minimum, Up to \$35; snow emergency parking violation, Up to \$35; parking without decal, \$50; Expired Meter Up to \$35;

Handicapped parking violations, \$100.

FY 2023 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY 2022-23	% Change FY 2022-23
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	(\$5)	-100.0%
Lacrosse:					
Adult Ticket	\$5	\$5	\$0	(\$5)	-100.0%
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-\$2,500	\$5-\$2,500	\$5-\$2,500	\$0	0.0%

UNIVERSITY OF MASSACHUSETTS CHAN MEDICAL SCHOOL

STUDENT TUITION & FEE SCHEDULES

FY 2023 TUITION & MANDATORY FEES

FY 2023 NON-MANDATORY FEES

FY 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2023 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

**FY 2023 TUITION & MANDATORY FEES
SUMMARY TABLE**

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY 2022-23	% Change FY 2022-23
TUITION					
T.H. Chan School of Medicine (in-state)	\$36,570	\$37,120	\$38,048	\$928	2.5%
T.H. Chan School of Medicine (out-of-state)	\$62,889	\$63,832	\$65,428	\$1,596	2.5%
Tan Chingfen Graduate School of Nursing: *					
In state students	\$14,275	\$14,490	\$14,852	\$362	2.5%
NE Regional	\$17,706	\$17,972	\$18,422	\$450	2.5%
Out of state	\$19,518	\$19,812	\$20,308	\$496	2.5%
Graduate Entry Program (GEP) - year 1:					
In state students	\$44,512	\$45,180	\$46,310	\$1,130	2.5%
NE Regional	\$50,880	\$51,644	\$52,936	\$1,292	2.5%
Out of state	\$57,246	\$58,106	\$59,559	\$1,453	2.5%
Morningside Grad. School of Biomedical Sci. (in-state)	\$14,724	\$14,946	\$15,320	\$374	2.5%
Morningside Grad. School of Biomedical Sci. (out-of-state)	\$32,340	\$32,826	\$33,648	\$822	2.5%
MANDATORY FEES					
Equipment Fee (Medical & Nursing Schools)	\$334	\$338	\$346	\$8	2.4%
Assessment Fee (Medical School)	\$375	\$380	\$390	\$10	2.6%
Certification Fee (Medical School)	\$120	\$132	\$134	\$2	1.5%
Simulation Fee (iCELS) (Medical School)	\$206	\$208	\$212	\$4	1.9%
Health / Counseling Fee (All Schools)	\$861	\$874	\$896	\$22	2.5%
Student Services Fee (All Schools)	\$195	\$198	\$202	\$4	2.0%
SUBTOTAL OTHER MANDATORY FEES					
T.H. Chan School of Medicine	\$2,091	\$2,130	\$2,180	\$50	2.3%
Tan Chingfen Graduate School of Nursing	\$1,390	\$1,410	\$1,444	\$34	2.4%
Morningside Graduate School of Biomedical Sciences	\$1,056	\$1,072	\$1,098	\$26	2.4%
TOTAL MANDATORY FEES & TUITION					
T.H. Chan School of Medicine - (in-state)	\$38,661	\$39,250	\$40,228	\$978	2.5%
T.H. Chan School of Medicine (out-of-state)	\$64,980	\$65,962	\$67,608	\$1,646	2.5%
Tan Chingfen Graduate School of Nursing (in-state)	\$15,665	\$15,900	\$16,296	\$396	2.5%
Tan Chingfen Graduate School of Nursing (NE regional)	\$19,096	\$19,382	\$19,866	\$484	2.5%
Tan Chingfen Graduate School of Nursing (out-of-state)	\$20,908	\$21,222	\$21,752	\$530	2.5%
Tan Chingfen Grad. School of Nursing GEP (in-state)	\$45,902	\$46,590	\$47,754	\$1,164	2.5%
Tan Chingfen Grad. School of Nursing GEP (NE regional)	\$52,270	\$53,054	\$54,380	\$1,326	2.5%
Tan Chingfen Grad. School of Nursing GEP (out-of-state)	\$58,636	\$59,516	\$61,003	\$1,487	2.5%
Morningside Grad. School of Biomedical Sciences (in-state)	\$15,780	\$16,018	\$16,418	\$400	2.5%
Morningside Grad. School of Biomedical Sciences (out-of-state)	\$33,396	\$33,898	\$34,746	\$848	2.5%

* Based on 18 credits

FY 2023 NON-MANDATORY FEES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY 2022-23	% Change FY 2022-23
MD/Ph.D (in-state) *****	36,570	37,120	38,048	\$928	2.5%
MD/Ph.D Years 1-2 (out-of-state) *****	62,889	63,832	65,428	\$1,596	2.5%
MD/Ph.D Years 3+ (out-of-state) *****	62,889	63,832	65,428	\$1,596	2.5%
Administrative Fees:					
Commencement Fee	\$255	\$258	\$264	\$6	2.3%
Extension Fee (medical students - in-state)***	\$7,000	\$7,106	\$7,284	\$178	2.5%
Extension Fee (medical students - out-of-state)***	\$7,000	\$7,106	\$7,284	\$178	2.5%
Diagnostic Instruments (medical students)	\$812	\$824	\$844	\$20	2.4%
FSSC Fee (nursing students acute subspecialties)	\$355	\$360	\$368	\$8	2.2%
Typhon Software (nursing students)	\$129	\$130	\$132	\$2	1.5%
Graduate Entry Program ATI Fee (On-line modules - GEP nursing students)	\$1,255	\$1,274	\$1,306	\$32	2.5%
Nursing Leadership Fee (nursing students)	\$142	\$144	\$148	\$4	2.8%
UWorld (medical students 2nd year)	N/A	N/A	\$540	N/A	N/A
UWorld (medical students 3rd year)	N/A	N/A	\$450	N/A	N/A
Program Fees:					
Doctoral Continuation Fee (nursing students) **	\$2,353	\$2,388	\$2,448	\$60	2.5%
Elective Fee (medical students)	\$104	\$106	\$108	\$2	1.9%
Elective Fee (international medical students)	\$1,015	\$1,030	\$1,056	\$26	2.5%
Continuing Course Fee (nursing students)	\$101	\$102	\$104	\$2	2.0%
Program Fee (MD/PhD and biomed. science students) **	\$101	\$102	\$104	\$2	2.0%
On-line Technology Fee (nursing students)	\$25	\$25	\$25	\$0	0.0%
Health Sciences Preparatory Program Course Fee	\$110	\$112	\$114	\$2	1.8%
Postbaccalaureate Research Education Program Fee	\$110	\$112	\$114	\$2	1.8%
Lab Fees:					
Acute Care Lab Fee (nursing students)	\$456	\$462	\$474	\$12	2.6%
Advanced Health Assessment (nursing students)	\$1,015	\$1,030	\$1,056	\$26	2.5%
Clinical Lab Fee (nursing students clinical year only)	\$2,030	\$2,060	\$2,112	\$52	2.5%
Health Assessment Lab Fee (nursing students)	\$502	\$510	\$522	\$12	2.4%
Standardized Patient Lab Fee (nursing students)	\$177	\$180	\$184	\$4	2.2%
Health Fees:					
Disability Insurance*	\$72	\$72	\$72	\$0	0.0%
Supplemental Health Insurance ****	\$4,173	\$4,464	\$4,576	\$112	2.5%

* 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 2023 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY 2022-23	% Change FY 2022-23
Tan Chingfen Grad School of Nursing On-line (per unit)	\$793	\$804	\$824	\$20	2.5%

FY 2023 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2021 Actual	FY2022 Actual	FY2023 Proposed	\$ Change FY 2022-23	% Change FY 2022-23
Administrative Fees:					
Application Fee - T.H. Chan School of Medicine	\$100	\$100	\$100	\$0	0.0%
Elective Application Fee - International - T.H. Chan School of Medicine	\$200	\$200	\$200	\$0	0.0%
Application Fee - Tan Chingfen Graduate School of Nursing	\$100	\$100	\$110	\$10	10.0%
Application Fee - Morningside Graduate School of Biomedical Sciences	\$80	\$80	\$80	\$0	0.0%
Registration Fee - Tan Chingfen Graduate School of Nursing (non-matrices only)	\$30	\$30	\$30	\$0	0.0%
Late Registration / Late Payment (all schools)	\$50	\$50	\$100	\$50	100.0%

Appendix C: Annual Financial Report



UNIVERSITY OF MASSACHUSETTS

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

Year ended June 30, 2022

(With Independent Auditors' Report Thereon)

UNIVERSITY OF MASSACHUSETTS

Independent Auditors' Report as Required by Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards and Government Auditing Standards* and Related Information
Year ended June 30, 2022

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University Administration

As of November 2022

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Fall River, MA

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(UMB Student, Non-voting)
Norwood, MA

Robert Epstein
Boston, MA

Richard M. Kelleher
Duxbury, MA

Mina T. Lam
(UML Student, Non-voting)
Medford, MA

Adam M. Lechowicz
(UMA Student, Voting)
Northampton, MA

Robert Lewis, Jr.
Boston, MA

Ann M. Maguire Keches
Boston, MA

Michael V. O'Brien
Southborough, MA

Noreen C. Okwara, MD
Lowell, MA

Imari K. Paris Jeffries
Boston, MA

James A. Peyser
Milton, MA

Julie M. Ramos Gagliardi
Somerset, MA

Elizabeth D. Scheibel, JD
South Hadley, MA

Steven A. Tolman
Boston, MA

Maxwell D. White
(UMD Student, Non-voting)
Centerville, MA

Charles F. Wu
Newton, MA

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Chancellor, UMass Lowell

Michael F. Collins, MD
Chancellor, UMass Chan Medical School;
Senior Vice President for Health Sciences

Lisa A. Calise
Senior Vice President for Administration
and Finance & Treasurer

Zunilka M. Barrett
Secretary to the Board of Trustees



Letter from the President

Dear Friends,

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

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

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

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

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

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

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

Sincerely,

Martin T. Meehan
President



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

Independent Auditors' Report

Board of Trustees of the
University of Massachusetts:

Report on the Audit of the Financial Statements

Opinions

We have audited the financial statements of the business-type activities and the aggregate discretely presented component units of the University of Massachusetts (the University), as of and for the years ended June 30, 2022 and 2021, and the related notes to the financial statements, which collectively comprise the University's basic financial statements for the years then ended as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the aggregate discretely presented component units of the University, as of June 30, 2022 and 2021, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with U.S. generally accepted accounting principles.

Basis for Opinions

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

Emphasis of Matters

Reporting Entity

As discussed in Note 1, the financial statements of the University are intended to present the financial position, the changes in financial position, and, where applicable, cash flows of only that portion of the business-type activities, each major fund, and the aggregate discretely presented component units of the Commonwealth of Massachusetts that is attributable to the transactions of the University. They do not purport to, and do not, present fairly the financial position of the Commonwealth of Massachusetts as of June 30, 2022 and 2021, the changes in its financial position, or, where applicable, its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles. Our opinions are not modified with respect to this matter.

Adoption of New Accounting Pronouncements

As discussed in note 1, in 2022, the University adopted Governmental Accounting Standards Board (GASB) Statement No. 87, *Leases*, and GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. Our opinions are not modified with respect to this matter.



Responsibilities of Management for the Financial Statements

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

Auditors' Responsibilities for the Audit of the Financial Statements

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

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

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

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

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis and required supplementary information as listed in the accompanying table of contents be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.



Other Information

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

In connection with our audits of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated December 15, 2022 on our consideration of the University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.

KPMG LLP

Boston, Massachusetts
December 15, 2022



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SCIENCE CON



Management's Discussion and Analysis (unaudited)

June 30, 2022

Introduction

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

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

UMass Amherst is the flagship campus of the University. True to its land-grant roots, UMass Amherst is engaged in research and creative work in all fields and is classified by the Carnegie Foundation for the Advancement of Teaching as a doctoral university with the "highest research activity". Major areas of emphasis include climate science, food science, alternative energy, nano manufacturing, polymer science, computer science and linguistics. Consistently rated as a "Top Producer of Fulbright Students," UMass Amherst is ranked 26th among the nation's top public schools in the 2022 *U.S. News & World Report*.

UMass Boston is nationally recognized as a model of excellence for urban public research universities. Located on Boston Harbor, it is the metropolitan area's only public research university. UMass Boston's distinguished intellectual contributions span the social sciences, education, health

and wellness. With a student population that represents 136 countries, UMass Boston is committed to educating people from modest-income backgrounds, first-generation college students and those from urban areas here and abroad.

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

UMass Law, which is part of UMass Dartmouth and the only public law school in Massachusetts, is committed to providing an excellent, affordable, and accessible legal education that balances legal theory, doctrine, skills, experience, and professionalism. UMass Law prepares students to thrive in a changing profession and advances justice through research, writing, teaching, learning, and practice. UMass Law's February 2022 Massachusetts first-time bar passage rate was 82%, the fourth highest passage rate of the Massachusetts law schools.

UMass Lowell is ranked 87th among the nation's top public schools within the 2022 *U.S. News & World Report*, with programs supporting workforce and economic development through innovation, entrepreneurship and public-private partnerships. UMass Lowell prepares students emphasizing experiential learning through cooperative education, service and research.

UMass Chan Medical School founded in 1962 and situated in Worcester, is the Commonwealth's only public medical school and the University's Nobel-prize winning health sciences education and research campus. In September of 2021, the Medical School received an endowment gift of \$175 million from The Morningside Foundation with annual distributions from the fund to be used for unrestricted purposes by the Medical School. In recognition of this transformational gift, the Medical School was renamed to the UMass Chan Medical School (UMass Chan). UMass Chan's three graduate schools were also renamed

in recognition of this gift: the T.H. Chan School of Medicine, the Morningside Graduate School of Biomedical Sciences, and the Tan Chingfen Graduate School of Nursing. Consistently ranked by *U.S. News & World Report* in the top 10 percent of medical schools in the U.S. for primary care training, UMass Chan has remained true to its founding mission while also becoming globally recognized in biomedical research. Unique among medical schools, UMass Chan is also home to Commonwealth Medicine, a health care consulting division that partners with states and the federal government in delivering health services to vulnerable populations; and MassBiologics, the only non-profit, FDA-licensed manufacturer of vaccines and biologics in the nation.

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



Financial Management

Accountability Framework

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

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

FIGURE 1 –UMass Financial Accountability Framework



Through the accountability framework, the University has made consistent improvement in its financial management in a number of areas.

- Identifying and assessing systemwide risk mitigation strategies focused on University's Top 10 risks;
- Developing and evaluating multi-year financial forecasts to guide policy and programmatic decisions;
- Reporting of complete and accurate financial results through a quarterly close process;
- Developing and evaluating quarterly projections to monitor performance and make resulting operational adjustments;
- Tracking student enrollment data in real time to quickly observe trends that may impact campus projections;
- Implementing and tracking creative, high-impact cost containment strategies across its campuses, including expanding the University's shared services initiative;

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

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

COVID-19 Response

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

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

Shared Services Initiatives

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

To implement this plan, the University formally kicked off its Unified Procurement Services Team (UPST) in January 2020, led by a new University Chief Procurement Officer. Comprised of a team of procurement professionals from across the UMass system, they were tasked with providing high-quality services while driving transaction efficiency. The UPST supports the campuses in cost optimization through proactive commodity sourcing and contracting with innovative suppliers and partners that support the UPST in delivering on its "better, faster, and cheaper" mission. The team manages approximately \$1 billion in





third-party spend annually and approximately 30,000 suppliers and partners. The UPST manages this through leveraging optimized technology, data-driven business intelligence, training, and enhanced operational processes.

Since its inception through June 2022, the UPST has achieved \$87.1 million in annualized cost benefits. This was achieved through more than 280 initiatives across all campuses and the UMass President's Office. The resulting system benefits reached five times the target savings of \$16.5 million and 5 times the return on investment to date of \$16.1 million.

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

Based on the success of the UPST, the University began its second shared service initiative in FY2022 with a focus on payroll services. The University has created a roadmap, identified campus priorities, and drafted a preliminary design of future

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

Using the Annual Financial Report

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

This report includes the University's Statements of Net Position, Statements of Revenues, Expenses and Changes in Net Position, and the Statements of Cash Flows for the fiscal years ended June 30, 2022 and 2021, as well as certain required supplementary information. The University's net position (the difference between assets, deferred outflows, deferred inflows, and liabilities) is one indicator of the University's financial health. Over time, increases or decreases in net position are indicators of the improvement in or erosion of an institution's financial health when considered together with non-financial factors such as enrollment levels and the condition of facilities.

Statements of Net Position include all assets and liabilities, as well as deferred inflows and outflows of resources of the University. Net position is further broken down into three categories: net investment in capital assets, restricted and unrestricted. Amounts reported in net investment in capital assets represent the historical cost of property and equipment, reduced by the balance of related debt outstanding and depreciation expense charged over the years. Net position is reported as restricted when constraints are imposed by third parties, such as donors or enabling legislation. Restricted net position is either non-expendable, as in the case of endowment gifts to be held in perpetuity, or expendable, as in the case of funds to be spent on scholarships and research. All other assets are unrestricted; however, they may be committed for use under contract or designation by the Board of Trustees (the Board). Note 17 to the accompanying financial statements depicts the designations of unrestricted net position at June 30, 2022 and 2021, respectively.

Statements of Revenues, Expenses and Changes in Net Position present the revenues earned and expenses incurred during the year. Activities are reported as either operating or non-operating, as prescribed by GASB. According to the GASB definitions, operating revenues and expenses include tuition and fees, grant and contract activity, auxiliary enterprises and activity for the general operations of the institution not including appropriations from state and federal sources. Non-operating

revenues include appropriations, capital grants and contracts, gifts, investment income, and non-operating federal grants (such as Pell grants, and COVID-19 related Higher Education Emergency Relief Fund grants). With a public university's dependency on support from the state, Pell grants, and gifts, it is common for institutions to have operating expenses exceed operating revenues. This is because the financial reporting model prescribed by GASB classifies state and federal appropriations, Pell grants, and gifts as non-operating revenues. Due to the materiality of the state appropriations upon which the University relies, these appropriation amounts are included in certain analyses throughout this MD&A as operating revenue. The utilization of capital assets is reflected in the financial statements as depreciation expense, which amortizes the cost of a capital asset over its expected useful life. Depreciation expense is considered an operating expense.

Statements of Cash Flows present cash receipts and payments of the University. The purpose of these statements is to present the sources of cash coming into the University, how that cash was expended, and the change in the total cash balance during the year.

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



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

Reporting Entity

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

Separate Statements of Financial Position and Statements of Activities are presented in this report for the University's discretely presented component units, the University of Massachusetts Foundation, Inc. (UMF), and the University of Massachusetts Dartmouth Foundation, Inc. (UMDF). The statements for these entities are presented in accordance with Financial Accounting Standards Board (FASB) standards, which differ from GASB standards in certain areas such as reporting of pledges to endowment and net position. The individual financial statements of each foundation can be obtained by contacting the foundations directly: www.umassfoundation.org for UMF and giving@umassd.edu for UMDF.

University of Massachusetts Foundation, Inc.

UMF was established in 1950 to foster and promote the growth, progress and general welfare of the University, and to solicit, receive and administer gifts and donations for such purposes. UMF maintains a portion of the University's investment portfolio, predominantly the endowment, quasi-endowment investments, and certain other investments. The total investments held at UMF on behalf of the University at June 30, 2022, 2021 and 2020 were \$915.0 million, \$1.1 billion and \$923.7 million, respectively.

University of Massachusetts Dartmouth Foundation, Inc.

UMDF was established in 1973 to raise funds for the development and improvement of the academic and educational environment for students at the Dartmouth campus and the continued engagement of its alumni. In addition to holding investments for the University, UMF holds a significant portion of the UMDF

investments. The total investments of UMDF at June 30, 2022, 2021 and 2020 were \$61.6 million, \$76.1 million and \$57.8 million, respectively, of which \$61.2 million, \$74.4 million and \$56.0 million is invested with UMF, respectively.

Financial Highlights

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

The University was awarded \$255.6 million under the Coronavirus Aid, Relief, and Economic Security (CARES) Act, the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) and the American Rescue Plan of 2021 (ARPA), collectively provided under the Higher Education Emergency Relief Fund (HEERF). An additional \$3.0 million was awarded under the Governor's Emergency Education Relief Funds. The total funding is split into awards specifically for students and others specifically for use by the University to cover costs related to significant changes to the delivery of instruction due to the coronavirus, partial recovery of lost revenue, and can also be used to provide additional aid to students. The University provided emergency financial aid grants to students of \$72.3 million and \$27.1 million and 14.7 million in FY2022, FY2021 and FY2020, respectively. An additional \$70.4 million, \$54.9 million and \$13.9 million was used to recover a portion of lost revenue and additional financial aid to students in FY2022, FY2021 and FY2020, respectively. The remaining unspent funds are expected to be used, and corresponding revenue recognized, in FY2023.

In Fall 2021, the University acquired Brandman University in exchange for \$139.3 million. As part of the transaction, the University launched UMass Global (UMG), a private, nonprofit institution, provides online degree and certificate programs in a wide range of disciplines, serving adult learners. UMG maintains a robust and scalable service and technology platform, allowing for the delivery of a wide variety of primarily online certificate and degree programs, including employer-funded degree programs and competency-based education (CBE). UMG offers over 90 undergraduate, graduate (including two professional doctoral programs), credential, certificate, and non-degree credit programs in the fields of education, arts and sciences,

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

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

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

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

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

Net Position

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

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

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

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

FIGURE 2 – Condensed Schedule of Net Position

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

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

* Does not reflect adoption of GASB-87

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

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

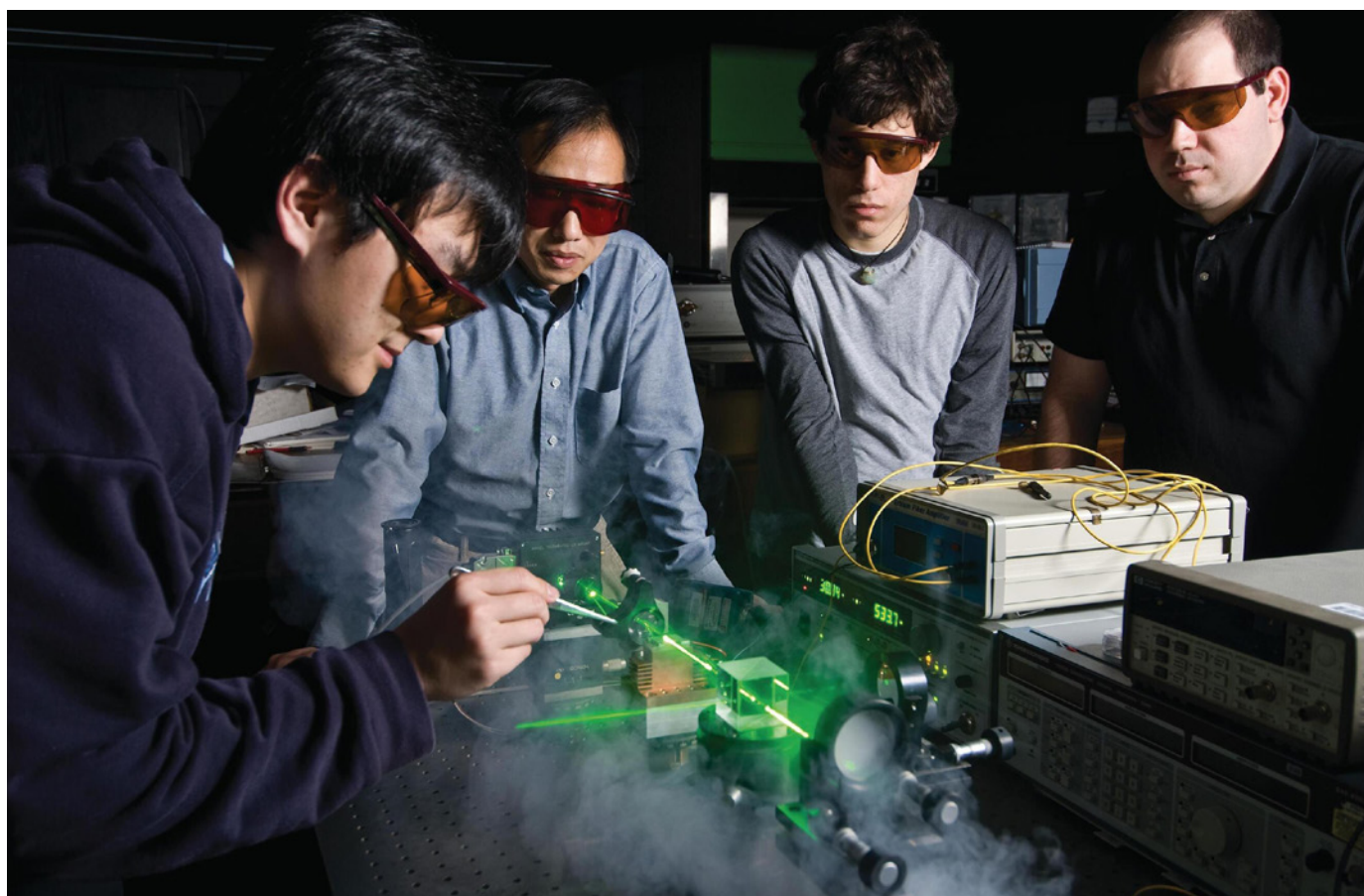
had a negative unrestricted net position, due to large employee postemployment benefits (pension and OPEB) liabilities totaling \$1.3 billion.

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

FIGURE 3 – Investment Liquidation and Rebalancing

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

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



Revenues, Expenses, and Changes in Net Position

Condensed schedules of revenues, expenses, and changes in net position of the University for the three years ended June 30, 2022, 2021, and 2020, are presented in **Figure 4**.

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

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

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

*Does not reflect adoption of GASB-87

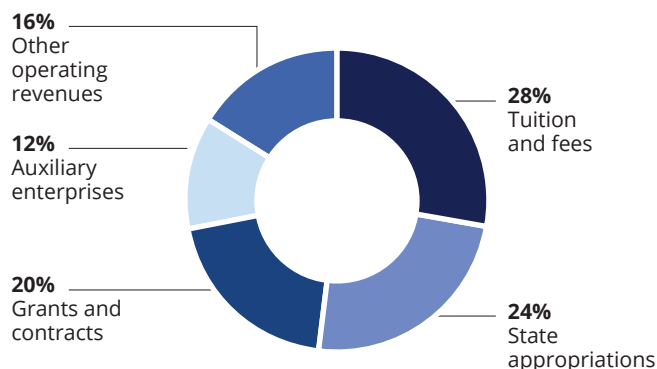
Operating Revenues and Expenses

While not classified on the financial statements as operating revenue, state appropriations serve as a primary source for funding the core mission of the University. State appropriations revenue, described in detail below, is used almost exclusively to fund payroll for University employees, and as such is considered to be operating revenue for management's planning and analysis purposes. The University's operating revenue, including state appropriations, increased by \$452.5 million to \$3.6 billion in FY2022, primarily due to auxiliary revenues returning to normal operations, increases in grants and contracts, and the addition of UMG's tuition and fee revenues. In FY2021 and FY2020 operating revenues remained essentially flat at approximately \$3.2 billion due to the impact of COVID-19 on operations, primarily on auxiliary revenues in the second half of FY2020 and all of FY2021 which was offset by an increase in grants and contracts and state appropriations from FY2020 to FY2021.

As noted in **Figure 5**, over 50% of the University's FY2022 operating revenues were from tuition and fees and state appropriations. Auxiliary enterprises revenue includes housing and dining revenue. These three revenue categories make up the primary revenue sources related to providing student with an academic education and combined make up 60% of the University's operating revenue.

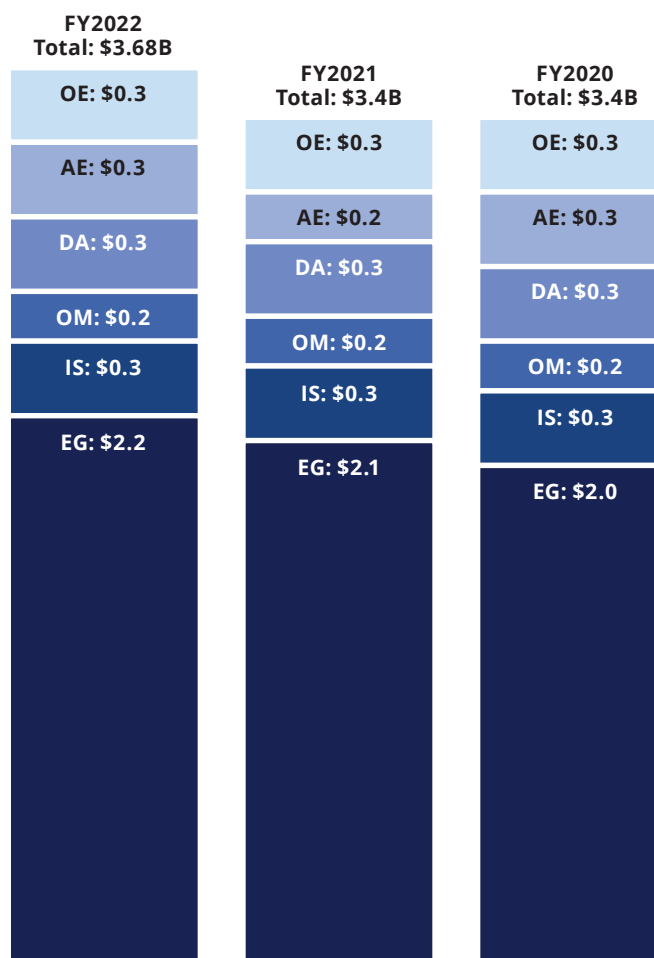
Other operating revenues include revenues generated from CWM programs. These programs provide public consulting and services in health care financing, administration and policy to federal, state and local agencies and not-for-profit health and policy organizations. In addition to CWM activities, other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

FIGURE 5 – Fiscal Year 2022 Operating Revenues (including State Appropriations)



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

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



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

State Appropriations

In FY2022, state appropriations represented approximately 23% of all revenues. The level of state support is a key factor influencing the University's overall financial condition. Although the state appropriations are unrestricted revenue, nearly 100% of the state appropriations support payroll and benefits for University employees. In addition to the direct state appropriation there are several smaller appropriations that add to the total state support for the University. While these smaller line items are in support of campus-specific programs and do not support general University operations, they are included in the state appropriations line in the accompanying financial statements, and in the state appropriations line in **Figure 7**.

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

The University's state appropriations including fringe benefits increased in FY2022 by \$34.5 million from FY2021, primarily due to an increase in available state funding and increases in collective bargaining determined by the Commonwealth. The University's state appropriations including fringe benefits increased in FY2021 by \$35.0 million from FY2020 primarily due to an increase in reimbursements for costs related to increases in collective bargaining determined by the Commonwealth and the implementation of the Paid Family Medical Leave (PFML) law.

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

State Capital Appropriations

The University faces a financial challenge to maintain and upgrade its capital assets including its infrastructure, buildings and grounds. To have a successful capital program, the

University must rely on a combination of revenue sources to fund its capital investments. In FY2022, FY2021 and FY2020, the capital support provided to the University through appropriations and grants from the Commonwealth was \$87.1 million, \$62.6 million and \$51.5 million, respectively. Beginning in FY2020, the Commonwealth established a strategic framework for approving the allocation of state funding for capital projects across higher education. The new framework provides funding in four distinct categories: major projects, critical repairs, critical infrastructure and readiness determination projects.

Grant and Contract Revenue

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

Collectively, UMass Amherst and UMass Chan account for approximately three-quarters of the University's total grants and contracts revenue of \$719.5 million, \$667.1 million and \$581.9 million at June 30, 2022, 2021 and 2020. **Figure 8** details the University's grant and contract revenues by source for the year ended June 30, 2022.

FIGURE 8 – Grant and Contract Revenue FY2022

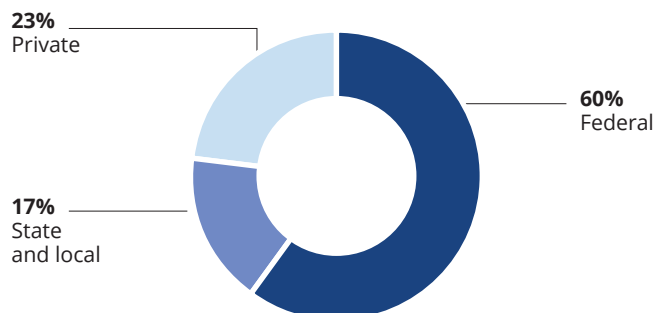


FIGURE 7 – State Appropriations

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

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

Tuition and Fees

Effective for academic year 2022–2023, in-state undergraduate tuition was raised an average of 2.5%, consistent with prepandemic trends. This follows two years of frozen tuition for in-state undergraduate programs. Due to affordability considerations and impacts of the COVID-19 pandemic, in-state undergraduate tuition was frozen for the academic years 2020–2021 and 2021–2022. This resulted in a reduction of \$43.4 million in recurring revenue due to freezing tuition during the COVID-19 period, \$29.1 million in academic year 2021–2022 and \$14.3 million in academic year 2020–2021. Affordability continues to be a priority of the University and increases in fees are considered in conjunction with Commonwealth support on an annual basis.

Enrollment

As shown in **Figure 9**, total enrollment in the fall of 2021 was 64,786 FTE (74,554 headcount students), a decrease of 1.9% over the fall of 2020 enrollment of 66,070 FTE (75,065 headcount students). Enrollment in the fall of 2019 was 66,010 FTE (75,065 headcount students). Although the University experienced a minor decline in the five-year enrollment of .02% from the fall of 2017 – fall of 2021, other institutions of higher education have experienced more significant declines in enrollments over this period. This is consistent with the University's efforts to increase its reach across the Commonwealth and to recruit non-resident students, and is reflective of the quality of the education provided by the University of Massachusetts. Improving student retention remains a key focus of the University's strategic goals to help offset the declining enrollment.

Admission to the University is open to residents of the Commonwealth and non-residents on a competitive basis. For the fall semester, Massachusetts residents accounted for 82.7% of the University's total undergraduate enrollment in fall 2021 and 83.4% in fall 2020, as shown in **Figure 10**.

FIGURE 10 – Fall 2021 Undergraduate Enrollment by Type

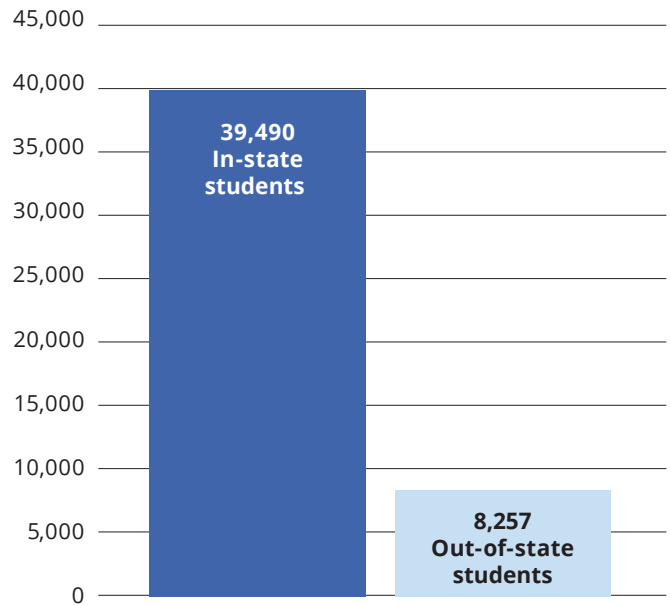
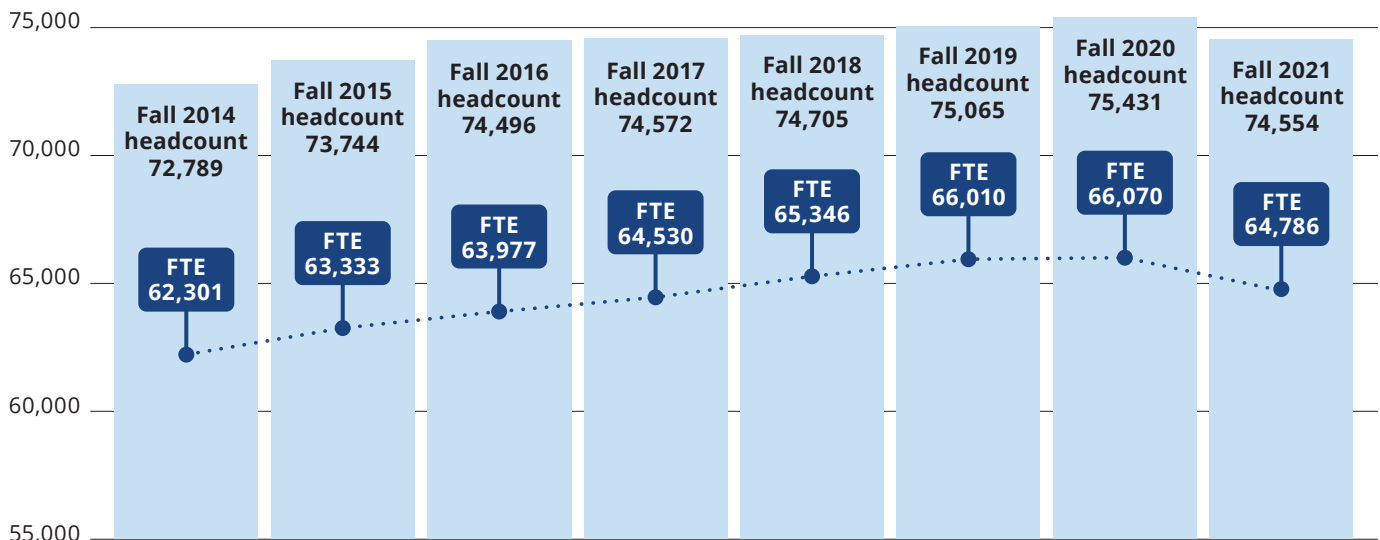


FIGURE 9 – Total Enrollment



Investments Held by UMF

As of June 30, 2022, the University's investments, held at UMF, were reduced by \$165.0 from \$1.1 billion to \$914.8 million. The change in investment value is due to investments losses of \$131.1 million (13.5% annualized return), distributions under the approved spending rule of \$34.9 million, offset by contributions of \$1.0 million. This reduction follows a year of a historic 37.1 percent fiscal year return experienced during FY2021 when the endowment grew by \$156.1 million to \$1.1 billion. Previously, the endowment generated an annualized return of 8.2 percent, exceeding UMF's long-term return objective and reflecting the strategic growth of the portfolio's exposure to global equities and strong partnerships with high caliber investment managers. This ten-year return was produced with annual investment results that ranged from a low of -3.7 percent in FY2016 to 37.1 percent in FY2021, underscoring the importance of having a long-term focus.

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

Long-Term Debt

Long-term debt (including commercial paper) is the University's largest liability at June 30, 2022, 2021 and 2020. The University had outstanding long-term debt of \$3.7 billion at June 30, 2022, \$3.3 billion at June 30, 2021 and \$3.2 billion at June 30, 2020. The principal issuer of the University's debt is the Building

Authority. Additional issuers utilized by the University include Massachusetts Health and Educational Facilities Authority (MHEFA), Massachusetts Development Financing Authority (MDFA), UMG and WCCC.

During FY2022, the University issued \$86.7 million in new commercial paper to finance the New Education and Research Building at the Chan Medical School campus, the Substructure Demolition & Quadrangle Development at the Boston campus, and the Science and Engineering Building at the Dartmouth campus with interest rates from .07% to 1.13%.

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

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

For further details on outstanding balances with each issuer, refer to Note 11 of the accompanying financial statements.



University Bond Rating

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

During FY2022, all three ratings agencies re-affirmed the University's ratings, citing the University's flagship role in public higher education in Massachusetts, strong fiscal oversight, steady enrollment, positive operating performance, growth in financial resources and solid support from the Commonwealth.

Line of Credit

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

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

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

Limitations on Additional Indebtedness

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

The Building Authority is authorized by its enabling act to issue bonds with the unconditional guarantee of the Commonwealth for the punctual payment of the interest and principal on the guaranteed bonds. The full faith and credit of the Commonwealth are pledged for the performance of its guarantee. The enabling act, as amended, currently limits to \$200.0 million the total principal amount of notes and bonds of the Building Authority that may be Commonwealth guaranteed and outstanding at any one time. During FY2021, the University retired its remaining Commonwealth guaranteed debt. As of June 30, 2022, the University does not have any outstanding Commonwealth guaranteed debt.

Capital Plan

A majority of the capital spending during FY2022 and FY2021 related to continued investments in deferred maintenance. In September 2021, the University's Board approved an updated five-year capital plan for FY2022–FY2026 totaling \$1.9 billion. The University's capital plan is funded through a combination of University operations, bonds issued by the Building Authority and MHEFA, Commonwealth appropriations, and private fundraising.

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

Factors Impacting Future Periods

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

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

Contacting the University

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

Financial Statements

Statements of Net Position

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

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

Statements of Revenues, Expenses, and Changes in Net Position

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

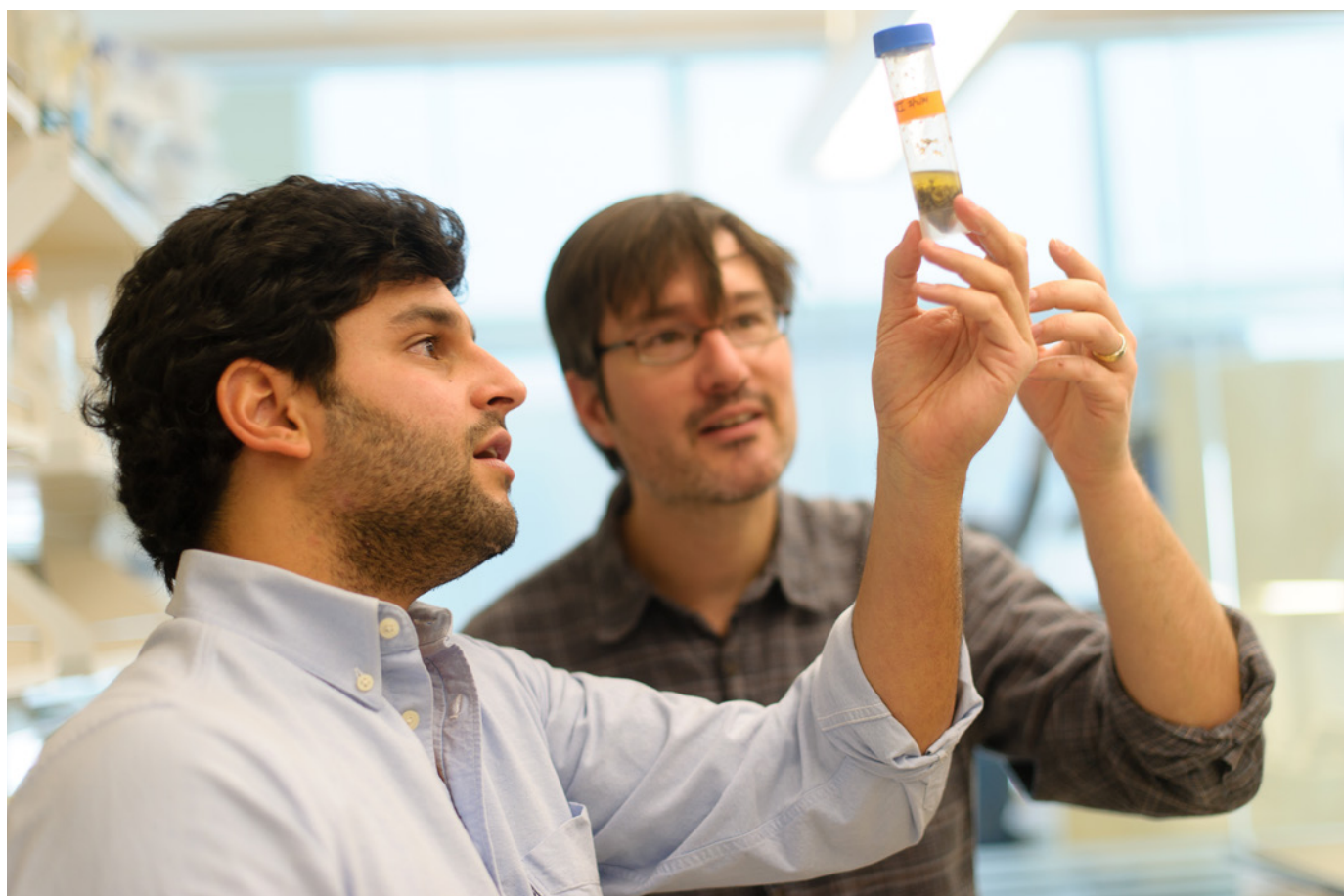
Revenues and expenses	2022	2021
Operating revenues		
Tuition and fees (net of scholarship allowances of \$369,902 at June 30, 2022 and \$345,128 at June 30, 2021)	\$ 1,007,124	\$ 930,613
Grants and contracts	719,479	667,149
Sales and services, educational activities	40,907	30,253
Auxiliary enterprises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

Statements of Cash Flows

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

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

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



Component Unit Statements of Financial Position

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

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



Component Unit Statement of Activities

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

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



Notes to Financial Statements

1. Summary of Significant Accounting Policies

Reporting Entity

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

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

On September 2, 2021 the University completed the transfer of control of Brandman University to UMass. This launched the University of Massachusetts Global (UMG) that will deliver expanded online education opportunities to adult learners. For purposes of financial reporting, beginning in fiscal 2022, UMG is now presented as a blended component unit.

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

The Building Authority is a public instrumentality of the Commonwealth created by Chapter 773 of the Acts of 1960 (referred to as the Enabling Act), whose purpose is to provide dormitories, dining commons, and other buildings and structures for use by the University. The UMLARC is a legally separate 501(c)(3) non-profit corporation which was formed on June 24, 2020. The purpose of UMLARC is to promote efficient and effective applied research and development by entering into grants, contracts, and other contractual mechanisms for services. UMLARC also provides analytic and technology solutions to government and non-government entities to extend the impact of the University's technology enterprise. UMG was launched in September of 2021 and is a California based not-for-profit institution of higher learning. WCCC is a tax-exempt organization founded to support research and real property activities for the University. The UMass Amherst Foundation was established in 2003 to support private fundraising on behalf of the faculty and students of the Amherst campus. The UMMSF was established in 1991 to support fundraising and philanthropic activities of the UMass Chan. These component units are blended in the financial statements of the University because of the significance and exclusivity of their financial relationships with the University. Refer to Note 19 for condensed financial information for these blended component units.

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

Basis of Presentation

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

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

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

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

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

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

Net Position

Net position is classified into the following categories:

- **Net investment in capital assets:** Capital assets, at historical cost or fair market value on the date of gift, net of accumulated depreciation and outstanding principal balances of debt attributable to the acquisition, construction or improvement of those assets.
- **Restricted nonexpendable:** Resources subject to externally imposed stipulations that they be maintained permanently by the University.
- **Restricted expendable:** Resources whose use by the University is subject to externally imposed stipulations. Such assets include restricted grants and contracts, the accumulated net gains/losses on true endowment funds, as well as restricted funds loaned to students, restricted gifts and endowment income, and other similar restricted funds.
- **Unrestricted:** The net position that is not subject to externally imposed restrictions governing their use. The University's unrestricted net position may be designated for specific purposes by management or the Board of Trustees. Substantially all of the University's unrestricted net position is designated to support academic and research initiatives or programs, auxiliary enterprises, quasi-endowments, or commitments to capital construction projects. Note 17 describes these designations in more detail.

Cash and Cash Equivalents

Cash and cash equivalents include cash balances maintained in checking accounts, overnight repurchase agreements and amounts held in permitted money market mutual funds with an original maturity date of three months or less.

Massachusetts Municipal Depository Trust

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

Accounts Receivable, Net

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

Investments

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

Endowment

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

Pooled investment funds will receive an annual distribution, based on the endowment fund’s average market value for the preceding twelve quarters on a one-year lag. Only quarters with funds on deposit are included in the average. In addition, a prudence rule is utilized, limiting spending from a particular endowment fund to be no lower than 93% of its carrying value. The spending rate approved for the years ended June 30, 2022 and 2021 was 4%.



Capital Assets

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

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

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

TABLE 1 – Depreciable Assets

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

Newly implemented accounting standards

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

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

TABLE 2 – Adjustment to previously reported net position

(\$ in thousands)

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

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

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

Leasing

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

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

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

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

Measurement of Lease Amounts —

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

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

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

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

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

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

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

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

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

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

Deferred Outflows and Inflows of Resources

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

The components of deferred outflows and inflows of resources as of June 30, 2022 and 2021 (\$ in thousands) are presented in **Tables 3** and **4**:

TABLE 3 – Deferred Outflows of Resources

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

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

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

TABLE 4 – Deferred Inflows of Resources

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

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

Compensated Absences

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

Unearned Revenue and Advances

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

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

Bond Issuance Costs

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

Tuition and Fees, Net of Scholarship Allowances

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

Grants and Contracts

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

The University records the recovery of indirect costs applicable to research programs and other activities which provide for the full or partial reimbursement of such costs, as revenue. Recovery of indirect costs for the years ended June 30, 2022 and 2021 was \$173.4 million and \$141.4 million, respectively, and is a component of grants and contracts revenue on the Statements of Revenues, Expenses, and Changes in Net Position.

As a result of the COVID-19 pandemic, the University was awarded \$255.6 million of COVID-19 assistance, collectively provided under the Higher Education Emergency Relief Fund (HEERF), of which \$253.3 million has been recognized to date. An additional \$3.0 million was awarded under the Governor's Emergency Education Relief Funds. Under Section 18004(a)(1) of the CARES Act, Section 314(a)(1)



of CRRSAA and ARPA, the University provided emergency financial aid grants to students of \$72.3 million and \$27.1 million for the years ended June 30, 2022 and 2021, respectively. These funds were recognized as revenue under nonoperating federal grants. An additional, \$70.4 million and \$54.9 million for the years ended June 30, 2022 and 2021, respectively, was used to recover a portion of lost revenue and additional financial aid to students. These funds were also recorded under nonoperating federal grant revenue.

Auxiliary Enterprises

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

Fringe Benefits for Current Employees and Postemployment Obligations

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

Use of Estimates

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

Income Tax Status

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

The University and its component units are required to assess uncertain tax positions and have determined that there were no such positions that are material to the financial statements as of June 30, 2022 and 2021, respectively.

Reclassifications

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

2. Cash Held by State Treasurer

Accounts payable, accrued salaries and outlays for future capital projects to be funded from state-appropriated funds totaled \$55.2 million and \$46.0 million at June 30, 2022 and June 30, 2021. The University has recorded a comparable amount of cash held by the State Treasurer for the benefit of the University, which will be subsequently utilized to pay for allowable expenditures. The cash is held in the State Treasurer's pooled cash account. The Commonwealth requires all bank deposits in excess of insurance coverage by the FDIC to be collateralized with a perfected pledge of eligible collateral. Eligible collateral must be pledged in an amount equal to 102% of the amount of the deposits that exceed FDIC insurance. Sufficient collateral to cover total Commonwealth deposits in excess of the FDIC insured amount must be pledged and held in safekeeping by a custodian that is approved by and under the control of the Commonwealth Treasurer and Receiver - General.

3. Deposits with Bond Trustees

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

At June 30, 2022 and 2021, deposits with bond trustees are presented in **Table 5** (\$ in thousands):

TABLE 5 – Deposits with Bond Trustees

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

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

At June 30, 2022, amounts restricted by bond trust agreements for capital projects and other purposes were \$501.5 million and \$18.3 million, respectively.

Custodial Credit Risk — The custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, a government will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. As of June 30, 2022 and 2021, the bank balances of uninsured deposits totaled \$8.5 million and \$7.7 million, respectively.

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

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

4. Investments

The investment portfolio of the University reflected on the Statements of Net Position for the years ended June 30, 2022 and 2021, respectively, are shown in **Tables 6** and **7** (\$ in thousands):

TABLE 6 – Investment Portfolio

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

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

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

The investment holdings of the University, including foundation agency funds, as of June 30, 2022 and 2021, respectively are summarized in **Table 7** (\$ in thousands):

TABLE 7 – Investment holdings of the University

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

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

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

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

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

In addition to foundation agency funds, the Foundations' assets also include investments not reported within the University's Statements of Net Position. Total investments of the Foundations as of June 30, 2022 and 2021, respectively, are summarized in **Table 8** (\$ in thousands):

TABLE 8 – Investment holdings of the Foundations

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

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

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

The carrying amounts of cash balances with uninsured or uncollateralized deposits were \$109.6 million and \$113.0 million, at June 30, 2022 and 2021, respectively.

The University held non-money market investments with a fair market value of \$1.1 billion and \$1.0 billion at June 30, 2022 and 2021, respectively. In the event of negligence due to the University's custodian and/or investment manager(s), it is expected that the investment balances would be fully recovered. However, these amounts are subject to both interest rate risk and credit risk.

Concentration of Credit Risk — As of June 30, 2022 and 2021, there is no concentration of investments from one issuer equal to or greater than 5% of the portfolio. Investments issued or guaranteed by the U.S. government, as well as investments in mutual funds and other pooled investments are excluded from consideration when evaluating concentration risk.



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

Table 9 presents the rated debt investments, excluding U.S. Treasury funds, at fair value by credit quality of the University's investment portfolio as of June 30, 2022 (\$ in thousands):

TABLE 9 – S&P Quality Ratings FY2022

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

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

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

TABLE 10 – S&P Quality Ratings FY2021

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

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

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

Table 11 presents the fair value of the rated debt investments component of the University's investment portfolio by investment maturity as of June 30, 2022 (\$ in thousands):

TABLE 11 – Investment Maturity (in years), FY2022

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

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

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

TABLE 12 – Investment Maturity (in years), FY2021

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

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

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

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

Level 2 — Inputs to the valuation methodology include:

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

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

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

As a practical expedient to estimate the fair value of the University's interests, certain investments in commingled funds and limited partnerships are reported at the net asset value (NAV) determined by the fund managers. Because these investments are not readily marketable, their estimated fair values may differ from the values that would have been assigned had a ready market for such investments existed, and such differences could be material. As of June 30, 2022 and 2021, the University had no plans or intentions to sell such investments at amounts different from NAV.



Table 13 summarizes the fair value of the University's investments by type as of June 30, 2022 (\$ in thousands):

TABLE 13 – Fair Value Hierarchy of Investments, FY2022

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

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

Table 14 presents unfunded commitments, redemption terms, restrictions, and notice period for investments that have been valued using NAV as a practical expedient as of June 30, 2022 (\$ in thousands):

TABLE 14 – Alternative Investments, FY2022

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

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

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



Table 15 summarizes the fair value of the University's investments by type as of June 30, 2021 (\$ in thousands):

TABLE 15 – Fair Value Hierarchy of Investments, FY2021

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

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

Table 16 presents unfunded commitments, redemption terms, restrictions, and notice period for investments that have been valued using NAV as a practical expedient as of June 30, 2021 (\$ in thousands):

TABLE 16 – Alternative Investments, FY2021

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

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

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

5. Accounts Receivable, Net

Accounts receivable as of June 30, 2022 and 2021 are presented in **Table 17** (\$ in thousands):

TABLE 17 – Accounts Receivable, Net

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

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

6. UMass Memorial Medical Center

In 1998, the University entered into an Amended and Restated Definitive Agreement (Definitive Agreement) with certain unaffiliated parties whereby the University separated its clinical health care operations from its ongoing academic operations. As part of the Definitive Agreement, the University entered into a 99-year Academic Affiliation and Support Agreement (Affiliation Agreement), expiring on June 30, 2097, with UMass Memorial (successor to the clinical operations) whereby UMass Memorial is required to make annual inflation adjusted payments to the University, for the remainder of the agreement term provided the University continues to operate a medical school. For the years ending June 30, 2022 and 2021, the inflation adjusted income recognized totaled approximately \$20.4 million and \$19.9 million and was recorded as other operating revenue in the accompanying financial statements.

Other provisions of the Definitive agreement include the University being reimbursed by, and reimbursing UMass Memorial, for shared services, cross-funded employees, and other agreed upon activities provided and purchased. For the years ended June 30, 2022 and 2021, the reimbursements received for services provided to UMass Memorial and recorded as other revenue were \$174.8 million and \$161.6 million, respectively. Included in these amounts are payroll paid by the University on behalf of UMass Memorial in an agency capacity, recorded as an offset to operating expenses, in the amount of \$109.9 million and \$100.3 million for the years ended June 30, 2022 and 2021, respectively.

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

7. Capital Assets

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

TABLE 18 – Capital Assets Activity

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

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

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

8. Business Acquisition

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

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

9. Public Private Partnerships (PPP)

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

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

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

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

The Dartmouth Project was financed with \$132.2 million of revenue bonds issued on November 14, 2018 (Series 2018 Bonds) by the Massachusetts Development Finance Agency (MassDevelopment) pursuant to a Loan and Trust Agreement between MassDevelopment and PCER II. The Building Authority, University nor Dartmouth campus have pledged revenues to secure the payment of the Series 2018 bonds or have any obligation with respect to payment of the Series 2018 bonds.

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

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

10. Leases

Lessee Leases

The University is a lessee for various noncancellable real estate.

The University has executed long-term leases with the Commonwealth, acting by and through the Trustees, covering the land on which facilities owned by the Building Authority are located on the University's campuses. These leases call for nominal annual payments to the Commonwealth. Some of these leases renew automatically for subsequent five- or ten-year periods unless the Building Authority notifies the University that it does not wish to renew. Other leases require the Building Authority to notify the University of its desire to renew. As of June 30, 2022, all leases with the Commonwealth were in good standing and any leases requiring action by the Building Authority during the year to facilitate their renewals were properly renewed.

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

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

TABLE 19 – Right of Use Asset Activity

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

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

Lease Liabilities

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

TABLE 20 – Lease Liabilities, FY2022

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

Liability	As of 2021	Additions	Remeasurements	Deductions	As of 2022	Due in one year
Real estate	\$ 200,805	\$ 7,150	\$ 6,223	\$ (14,341)	\$ 199,837	\$ 12,911
Equipment	-	119	755	(55)	819	2,136
Total	\$ 200,805	\$ 7,269	\$ 6,978	\$ (14,396)	\$ 200,656	\$ 15,047

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

TABLE 21 – Lease Liabilities, FY2021

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

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

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

TABLE 22 – Future Annual Lease Payments

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

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

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

Lessor Leases

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

Lease Receivables

Table 23 presents a summary of changes in the related lease receivable during the year ended June 30, 2022 (\$ in thousands):

TABLE 23 – Lease Receivables, FY2022

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

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

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

TABLE 24 – Lease Receivables, FY2021

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

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

For the years ended June 30, 2022 and 2021, the University recognized \$20.7 million and \$18.0 million, respectively, of revenue related to its lessor operating leases, which is included in auxiliary enterprise revenue, other operating revenue and other nonoperating income in the accompanying financial statements.

Direct Financing Arrangement

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

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

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

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

At June 30, 2022 and 2021, the University recorded gross lease receivable of approximately \$96.6 million and \$101.7 million, respectively, related to the EMKI lease. Also, at June 30, 2022 and 2021, the University recorded unearned interest income of approximately \$25.9 million and \$28.2 million, respectively related to the EMKI lease. The University presents the unearned interest income associated with the EMKI lease as other current liabilities of approximately \$2.2 million and \$2.3 million and other noncurrent liabilities of approximately \$23.7 million and \$25.9 million as of June 30, 2022 and 2021, respectively.



11. Long-Term Debt

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

TABLE 25 – Long-Term Debt, FY2022

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

Debt	Original borrowing	Maturity date	Interest rate	As of 2021	Additions	Reductions	As of 2022
Building Authority							
Series 2009-2	\$ 271,855	2039	6.4–6.6%	\$ 16,945	\$ -	\$ -	\$ 16,945
Series 2009-3	28,570	2039	5.8–6.2%	23,135	-	(735)	22,400
Series 2010-2	430,320	2040	3.8–5.5%	430,320	-	(16,710)	413,610
Series 2010-3	3,005	2040	6%	2,490	-	(70)	2,420
Series 2013-1	212,585	2043	2.0–5.0%	13,735	-	(5,325)	8,410
Series 2013-2	71,970	2043	0.4–4.3%	32,010	-	(2,420)	29,590
Series 2013-3	24,640	2043	4.0–5.0%	945	-	(460)	485
Series 2014-1	293,890	2044	3.0–5.0%	66,825	-	(3,890)	62,935
Series 2014-3	67,635	2029	2.0–5.0%	28,635	-	(4,290)	24,345
Series 2014-4	157,855	2025	0.2–3.4%	13,865	-	(5,165)	8,700
Series 2015-1	298,795	2045	4.0–5.0%	266,880	-	-	266,880
Series 2015-2	191,825	2036	3.0–5.0%	157,765	-	(24,435)	133,330
Series 2017-1	165,130	2047	4.0–5.3%	165,130	-	-	165,130
Series 2017-2	19,510	2027	1.6–3.4%	15,100	-	(1,530)	13,570
Series 2017-3	187,680	2038	3.0–5.0%	155,630	-	(3,480)	152,150
Series 2018-1	37,650	2043	2.0–2.9%	37,650	-	-	37,650
Series 2019-1	208,725	2039	5%	208,725	-	-	208,725
Series 2020-1	200,840	2050	5%	200,840	-	-	200,840
Series 2020-2	129,830	2050	1.8–3.5%	129,830	-	(1,985)	127,845
Series 2020-3	319,345	2044	1.7–3.5%	317,795	-	(2,130)	315,665
Series 2020-4	329,930	2043	0.4%–3.0%	329,930	-	-	329,930
Series 2021-1	312,330	2037	5.0%	302,270	-	(10,520)	291,750
Series 2021-2	46,585	2036	0.2%	46,585	-	(15,750)	30,835
Series 2022-1	188,650	2052	5.0%	-	188,650	-	188,650
Series 2022-2	211,270	2045	2.2–4.3%	-	211,270	-	211,270
Unamortized bond premium				242,430	26,327	(27,149)	241,608
Total Building Authority				3,205,465	426,247	(126,044)	3,505,668
MHEFA/MDFA							
Series A	20,000	2030	variable	20,000	-	-	20,000
Total MHEFA/MDFA				20,000	-	-	20,000
WCCC MHEFA/MDFA							
Series 2005-D	99,325	2029	5.0–5.3%	425	-	-	425
Unamortized bond premium				20	-	(5)	15
WCCC MHEFA/MDFA				445	-	(5)	440
MDFA							
Clean renewable energy bonds	1,625	2027	3.50%	572	-	(94)	478
Total bonds payable				3,226,482	426,247	(126,143)	3,526,586
UMG*							
Working capital note	21,100	2025	2.2%	-	21,100	-	21,100
Building note	37,000	2027	2.2%	-	37,000	-	37,000
Change in control note	96,000	2031	0.0%	-	96,000	-	96,000
Unamortized discount				-	(14,814)	1,501	(13,313)
Total notes payable				-	139,286	1,501	140,787
Total long-term debt				\$ 3,226,482	\$ 565,533	\$ (124,642)	\$ 3,667,373

* Includes debt incurred through Brandman University acquisition

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

TABLE 26 – Long-Term Debt, FY2021

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

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

Pledged Revenues

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

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

Principal and Interest

Principal and interest, which is estimated using rates in effect at June 30, 2022, on bonds and notes payable for the next five fiscal years and in subsequent five-year periods are presented in **Table 27** (\$ in thousands):

TABLE 27 – Principal and Interest on Long-term Debt

(\$ in thousands)

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

* These interest rate subsidies are provided by the United States Government related to the Authority's issuance of bonds under the Build America Bond ("BAB") program. Under the BAB program, the Government provides a direct subsidy of the interest rate paid to bondholders up to 35%. The University's November 1, 2021, and May 1, 2022 subsidy payments related to the Senior Series 2009-2 Project Revenue Build America Bonds and the Senior Series 2010-2 Project Revenue Build America Bonds were 32.94% and 33.00%, respectively. For fiscal year 2023 through fiscal year 2043, the estimated subsidy reflected in the table above is 33.00%.

Bond Activity

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

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

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

Bond Premium (Discount)

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

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

Interest Rate Swaps

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

Notes Payable

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

Commercial Paper

The maximum aggregate principal amount of commercial paper which may be outstanding at one time is \$200.0 million. The Commercial Paper Series 2013-A2 are secured by a standby liquidity facility agreement that expired on August 12, 2022 and subsequently rolled with maturity dates through January 26, 2023.

TABLE 28 – Commercial Paper

As of June 30 (\$ in thousands)

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

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

Line of Credit

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

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

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

12. Other Liabilities

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

TABLE 29 – Current Portion and Total Other Liabilities

As of June 30 (\$ in thousands)

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

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

13. Fringe Benefits

During the years ended June 30, 2022 and 2021, the Commonwealth paid \$430.9 million and \$364.9 million, respectively, for the University's portion of fringe benefit costs which includes pension expense, health insurance for active employees and retirees, and terminal leave. Of this amount, the University reimbursed the Commonwealth \$158.0 million and \$119.3 million during the years ended June 30, 2022 and 2021, respectively. The remaining portion is included in revenue as state appropriations.



14. Benefit Plans

Defined Benefit Plan

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

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

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

Member contributions for MSERS vary depending on the most recent date of membership are presented in **Table 30**:

TABLE 30 – Membership Contributions

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

In addition, members within this group who join the system on or after April 2, 2012 will have their withholding rate reduced to 6% after achieving 30 years of creditable service.

The University makes contributions on behalf of the employees through a fringe benefit charge assessed by the Commonwealth. The fringe benefit charge amounted to \$178.9 million and \$141.7 million for the years ended June 30, 2022 and 2021, respectively. Annual covered payroll was 76.9% and 78.3% of annual total payroll for the University for the years ended June 30, 2022 and 2021, respectively.

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

The net pension liability as of June 30, 2022 was determined based on a measurement date of June 30, 2021 from an actuarial valuation as of January 1, 2021 rolled forward to June 30, 2021. The net pension liability measured as of June 30, 2021 was determined based on a measurement date of June 30, 2020 from an actuarial valuation as of January 1, 2020 rolled forward to June 30, 2020. There are no significant changes known which would impact the total pension liability between the measurement date and the reporting date, other than typical plan experience.

At June 30, 2022 and 2021, the University reported a liability of \$276.3 million and \$644.9 million, respectively, for its proportionate share of MSERS net pension liability, respectively. The University's proportion of the net pension liability was based on a projection of the University's long-term share of contributions to the pension plan relative to the total projected contributions of all participating entities, actuarially determined. The University's proportion of the pension plan at measurement dates of June 30, 2021 and 2020 was 2.65% and 3.76%, respectively.

For the fiscal years ended June 30, 2022 and 2021, the University recognized a net pension benefit of \$5.3 million and net pension expense of \$100.9 million, respectively.

The University reported its proportionate share of MSERS's deferred outflows of resources and deferred inflows of resources related to pensions from the following sources as of June 30, 2022 and 2021 as presented in **Tables 31** and **32** (\$ in thousands):

TABLE 31 – University's Proportionate Share of MSERS, FY2022

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

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

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

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

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

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

TABLE 33 – Amortization of Pension Expense in Future Years

(\$ in thousands)

Year ended June 30	Pension
2023	\$ (43,520)
2024	(42,752)
2025	(49,171)
2026	(60,746)
Total	\$ (196,189)

Actuarial Assumptions

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

TABLE 34 – Actuarial Assumptions

Assumption	June 30, 2021	June 30, 2020
Investment rate of return	7.00%	7.15%
Interest rate credited to the annuity savings fund	3.50%	3.50%
Cost of living increases on the first \$13,000 per year	3.00%	3.00%
Salary increases*	4.0% to 9.0%	4.0% to 9.0%
Mortality rates:		
Pre-retirement	RP-2014 Blue Collar Employees Scale MP-2020 **	RP-2014 Blue Collar Employees Scale MP-2016 **
Post-retirement	RP-2014 Blue Collar Healthy Annuitant Scale MP-2020 **	RP-2014 Blue Collar Healthy Annuitant Scale MP-2016 **
Disability	RP-2014 Blue Collar Healthy Annuitant Scale MP-2020 ***	RP-2014 Blue Collar Healthy Annuitant Scale MP-2016 **

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

** Set forward one year for females.

*** Set forward one year

Investment Allocation

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

Best estimates of geometric rates of return for each major asset class included in the PRIT Fund's target asset allocation as of June 30, 2021 and 2020 are summarized in **Tables 35** and **36**:

TABLE 35 – Target Asset Allocation as of June 30, 2021

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

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

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

Discount Rate

The discount rate used to measure the total pension liability was 7.00% and 7.15% at June 30, 2021 and 2020, respectively. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rates and the Commonwealth's contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rates. Based on those assumptions, the net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity Analysis

Table 37 illustrates the impact of a 1% change in the discount rate for the net pension liability at June 30, 2022 and 2021 (\$ in thousands):

TABLE 37 – Sensitivity Analysis of Discount

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

Fiscal year ended	1% Decrease	Current discount rate	1% Increase
June 30, 2022	\$ 422,938	\$ 276,313	\$ 155,799
June 30, 2021	849,667	644,879	476,558

Defined Contribution Plan

Non-vested faculty and certain other employees of the University can opt out of MSERS and participate in a defined contribution plan, the Optional Retirement Plan (ORP), administered by the Commonwealth's Department of Higher Education. As of June 30, 2022 and 2021, there were 2,191 and 2,057 participants in the ORP, respectively. Employees contribute at the same rate as members in MSERS and the Commonwealth matches 5% of employee contributions. The Commonwealth contributed \$8.9 million and \$8.5 million in 2022 and 2021, respectively. University employees contributed \$21.3 million and \$19.6 million in 2022 and 2021, respectively.

The MSERS and ORP retirement contributions of employees who become members of MSERS or ORP after January 1, 2011 are subject to a state compensation limit. Effective January 1, 2011, the University established a defined contribution plan, the University of Massachusetts 401(a) Retirement Gap Plan (Gap Plan). Employees with MSERS or ORP membership dates after January 1, 2011 are eligible to participate in the Gap Plan. Eligible employees begin participation in the Gap Plan when their regular compensation exceeds the state compensation limit in effect for the plan year, at which point their contributions to MSERS or ORP are required to stop for the remainder of the plan year. Employee contributions to the Gap Plan are mandatory and at the same rate as MSERS and ORP; the University contributes 5%. As of June 30, 2022 and 2021, the plan assets of the Gap Plan were \$8.8 million and \$9.4 million, respectively.

In addition, UMG offers a defined contribution retirement plan. Employees working at least 20 hours a week are eligible to participate in the plan after 90 days of employment. UMG contributes 3% of each employee's eligible annual salary, as defined by the plan.

Eligible employees may contribute up to 6% of their eligible salary and the University matches their contributions. UMG's total contribution to the plan was \$2.8 million for the period from September 1, 2022 to June 30, 2022.

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

15. Other Postemployment Benefits

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

Benefits Provided

Under Chapter 32A of the MGL the Commonwealth is required to provide certain health care and life insurance benefits for retired employees of the Commonwealth. Substantially all of the Commonwealth's employees may become eligible for these benefits if they reach retirement age while working for the Commonwealth. Eligible retirees are required to contribute a specified percentage of the health care/benefit costs, which are comparable to contributions required from employees.

Employer and employee contribution rates are set in MGL. The Commonwealth recognizes its share of the costs on an actuarial basis. As of June 30, 2022 and 2021, the retirees' share of premium costs is between 10% – 20%, depending on the date of hire.

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

The total OPEB liability as of June 30, 2022 was determined based on a measurement date of June 30, 2021 from an actuarial valuation as of January 1, 2021 rolled forward to June 30, 2021. The total OPEB liability as of June 30, 2021 was determined based on a measurement date of June 30, 2020 from an actuarial valuation as of January 1, 2020 rolled forward to June 30, 2020. There are no significant changes known which would impact the total OPEB liability between the measurement date and the reporting date, other than typical plan experience.

As of June 30, 2022 and 2021, the University reported a liability of \$485.1 million and \$829.8 million, respectively, for its proportionate share of the OPEB liability. The University's proportion of the OPEB liability was based on a projection of the University's long-term share of contributions to the OPEB plan relative to the total projected contributions of all participating entities, actuarially determined. The University's proportion of the OPEB plan at measurement dates of June 30, 2021 and 2020 was 3.03% and 4.01%, respectively.

For the fiscal years ended June 30, 2022 and 2021, the University recognized a net OPEB benefit of \$35.3 million and a net OPEB expense of \$40.5 million, respectively.

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

TABLE 38 – University's Proportionate Share of OPEB, FY2022

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

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

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

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

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

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

TABLE 40 – Amortization of OPEB Expense in Future Years

(\$ in thousands)

Year ended June 30	Pension
2023	\$ (91,194)
2024	(81,254)
2025	(80,638)
2026	(78,302)
2027	(75,573)
Total	\$ (406,961)

Actuarial Assumptions

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

Long-term rate of return on investment: 7.00%

Annual healthcare cost trend rates:

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

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

Long-term: Based on the most recent published SAO-Getzen model for trend rates beginning in 2022 and thereafter, based on the plan's long-term inflation assumption and reasonable macro-economic assumptions for the growth of health care expenditures during this period relative to the general economy. See **Table 41** for annual healthcare cost trend rates.

TABLE 41 – Annual Healthcare Cost Trend Rates

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

Getzen long run growth factors:

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

Mortality rates:

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

Participation rates:

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

TABLE 42 – Future Enrollment Proportions

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

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

Long-term rate of return on investment: 7.15%

Annual healthcare cost trend rates:

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

Short-term: Based on review of the plan's historical trend rates during fiscal years 2019 and 2020, along with industry surveys, separately for non-Medicare and Medicare benefits. Surveys were used to predict short-term future per capita cost increases.

Long-term: Based on the most recent published SAO-Getzen model for trend rates beginning in 2024 and thereafter, based on the plan's long-term inflation assumption and reasonable macro-economic assumptions for the growth of health care expenditures during this period relative to the general economy. See **Table 43** for annual healthcare cost trend rates.

TABLE 43 – Annual Healthcare Cost Trend Rates

Year	Medicare benefits	Non-Medicare benefits
2020	4.90%	6.70%
2021	4.80%	6.60%
2022	4.70%	6.50%
2023	4.60%	6.40%
2024	4.70%	6.20%
2030	5.18%	5.18%
2040	5.18%	5.18%
2050	5.18%	5.18%
2060	4.84%	4.84%
2070	4.38%	4.38%
2075+	4.04%	4.04%

Getzen long run growth factors:

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

Mortality rates:

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

Participation rates:

- 100% of employees currently electing healthcare coverage are assumed to elect coverage at retirement.
- 35% of employees currently opting out of active health coverage are assumed to elect to enroll in retiree coverages.
- 85% of current and future vested terminated participants will elect health care benefits at age 55 or later.
- Retirees who currently elect to waive their coverage are assumed to remain uncovered in the future.
- 100% of spouses are assumed to elect to continue coverage after retiree's death.

- Current non-Medicare eligible retirees and spouses (if covered) under age 65 who are in a POS/PPO plan are assumed to move to an Indemnity plan if they are Medicare eligible at 65. All others are assumed to remain in their currently elected product type.
- Future retirees are assumed to enroll in the existing plan in the same proportion as the current retiree mix, as shown in **Table 44**. These proportions are established separately for non-Medicare and Medicare coverage for each product type.

TABLE 44 – Future Participation Rates

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

Investment Allocation

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

Best estimates of geometric rates of return for each major asset class included in the PRIT Fund's target asset allocation as of June 30, 2021 and 2020 are summarized in **Tables 45** and **46**:

TABLE 45 – Target Asset Allocation as of June 30, 2021

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

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

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

Discount Rate

The discount rates used to measure the total OPEB liability as of June 30, 2021 and 2020 were 2.77% and 2.28%, respectively. These rates were based on a blend of the Bond Buyer Index rates of 2.16% and 2.21%, respectively, as of the measurement dates June 30, 2021 and 2020 and the long term rate of return on Plan investments of 7.00% and 7.15%, respectively. The Plan's fiduciary net position was not projected to be available to make all projected future benefit payments for current plan members. The projected "depletion date" when projected benefits are not covered by projected assets is 2041. Therefore, the long-term expected rate of return on plan investments was not applied to all periods of projected benefit payments to determine the total OPEB liability as of June 30, 2021 and 2020.

Sensitivity Analysis of Discount

Table 47 presents the net OPEB liability of the Commonwealth calculated using the discount rate, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1- percentage-point lower or 1-percentage-point higher than the current rate (\$ in thousands):

TABLE 47 – Sensitivity Analysis of Discount

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

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

Sensitivity Analysis of Healthcare Cost Trend Rate

Table 48 presents the net OPEB liability of the Commonwealth, as well as what the net OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rate (\$ in thousands):

TABLE 48 – Sensitivity Analysis of Healthcare Cost Trend Rate

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

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



16. Operating Expenses and Interest

Table 49 summarizes the University's operating and interest expenses by natural and functional classification for the year ended June 30, 2022 (\$ in thousands):

TABLE 49 – Operating Expenses and Interest, FY2022

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

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



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

TABLE 50 – Operating Expenses and Interest, FY2021

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

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

17. Unrestricted Net Position

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

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

Table 51 summarizes the University's unrestricted net position as of June 30, 2022 and 2021 (\$ in thousands):

TABLE 51 – Unrestricted Net Position

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

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

18. Commitments and Contingencies

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

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

In October 2022, the \$11.0 million became a fully non-refundable deposit that has been withdrawn from escrow and released to the University without conditions. Additionally, the University has the ability to terminate the agreement at any time subject to the terms of the agreement.

The University has outstanding purchase commitments with contractors for the construction of certain facilities as of June 30, 2022 and 2021 of \$181.5 million and \$162.8 million, respectively. The University has entered an energy performance contract that is being managed by the Commonwealth's Division of Capital Asset Management and Maintenance (DCAMM) under its Clean Energy Investment Program. This project includes 32 energy conservation measures. The University has a commitment to the Commonwealth for Clean Energy Investment Program funds used through June 30, 2022 and 2021 of \$36.4 million and \$41.2 million, respectively.

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

19. Blended Component Units

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

TABLE 52 – Condensed Information from the Statements of Net Position, FY2022

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

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

TABLE 53 – Condensed Information from the Statements of Revenues, Expenses, and Changes in Net Position, FY2022

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

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

TABLE 54 – Condensed Information from the Statements of Cash Flows, FY2022

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

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

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

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

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

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

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

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

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

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

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

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

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

20. Discretely Presented Component Units

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

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

Custodial Credit Risk

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

Concentration of Credit Risk — As of June 30, 2022 and 2021, there is no concentration of investments from one issuer equal or greater than 5% of the portfolio. Investments issued or guaranteed by the U.S. government, as well as investments in mutual funds and other pooled investments are excluded from consideration when evaluating concentration risk.

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

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

TABLE 58 – Debt Investments by Credit Quality, FY2022

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

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

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

TABLE 59 – Debt Investments by Credit Quality, FY2021

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

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

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

Table 60 presents the fair value by investment maturity of the unrated debt investments of UMF’s non-agency investment portfolio as of June 30, 2022 (\$ in thousands):

TABLE 60 – Debt Investments by Maturity, FY2022

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

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

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

TABLE 61 – Debt Investments by Maturity, FY2021

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

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



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

Table 62 summarizes the fair value of UMF's non-agency investments by type as of June 30, 2022 (\$ in thousands):

TABLE 62 – Fair Value Hierarchy of Non-Agency Investments, FY2022

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

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

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

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

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

Non-agency investments	Investments measured at NAV	Investments classified in the fair value hierarchy Level 1	Investments classified in the fair value hierarchy Level 2	Investments classified in the fair value hierarchy Level 3	Total
Money market funds	\$ -	\$ 45,536	\$ -	\$ -	\$ 45,536
Debt securities					
U.S. Treasury securities	-	47,550	-	-	47,550
Total debt securities	-	47,550	-	-	47,550
Equity securities					
Domestic equities	-	85,997	-	554	86,551
International equities	-	30,690	-	-	30,690
Total equity securities	-	116,687	-	554	117,241
Alternative investments					
Multi-strategy hedge funds					
Equity	255,591	-	-	-	255,591
Long/short	167,262	-	-	-	167,262
Fixed income	35,282	-	-	-	35,282
Absolute return	17,588	-	-	-	17,588
Real assets	8,061	-	-	-	8,061
Private equity	71,503	-	-	-	71,503
Private debt	17,644	-	-	-	17,644
Private real estate	8,558	-	-	-	8,558
Annuity & life income pooled funds	3,470	-	-	-	3,470
Total alternative investments	584,959	-	-	-	584,959
Total investments	\$ 584,959	\$ 209,773	\$ -	\$ 554	\$ 795,286



Table 64 presents unfunded commitments, redemption frequency and notice period for non-agency investments that have been valued using NAV as a practical expedient as of June 30, 2022 (\$ in thousands):

TABLE 64 – Alternative Non-Agency Investments, FY2022

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

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

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

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

Table 65 presents unfunded commitments, redemption frequency and notice period for non-agency investments that have been valued using NAV as a practical expedient as of June 30, 2021 (\$ in thousands):

TABLE 65 – Alternative Non-Agency Investments, FY2021

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

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

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

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

Related Party Transactions

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

Subsequent Events

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

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

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

For purposes of determining the effects of subsequent events on these financial statements, management has evaluated events subsequent to June 30, 2022 and through December 15, 2022, the date on which the financial statements were issued.



Required Supplementary Information (unaudited)

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

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

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

Based on the measurement date, June 30

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

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

For the fiscal year ended June 30

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

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

Based on the measurement date, June 30

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

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

For the fiscal year ended June 30

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



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

Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
Research and Development Cluster					
Agency for International Development					
National Academy of Sciences	98.001	200009509	USAID Foreign Assistance for Programs Overseas	\$ 22,461	118,629
Inclusive Development Partners	98.012	AID-7200AA18CA00009	USAID Development Partnerships for University Cooperation and Development	-	57,262
Management Sciences for Health Inc	98.U01	72030620CA00006	United States Agency for International Development Contracts	-	257,403
Management Systems International (MIS)	98.U02	720-306-19-C-00004	United States Agency for International Development Contracts	-	65,476
Agency for International Development Total				<u>22,461</u>	<u>498,770</u>
Department of Agriculture					
Agricultural Research Service	10.001	Direct	Agricultural Research-Basic and Applied Research	-	337,548
U.S. Department of Agriculture	10.001	Direct	Agricultural Research-Basic and Applied Research	-	31,910
Civilian Research & Development Foundation	10.001	59-0210-8-184	Agricultural Research-Basic and Applied Research	-	5,077
Civilian Research & Development Foundation	10.001	DAA3-19-6574-1	Agricultural Research-Basic and Applied Research	-	79,568
CRDF Global	10.001	59-0210-6-004	COVID-19 Agricultural Research-Basic and Applied Research	-	8,878
CRDF Global	10.001	R-202109-68108	Agricultural Research-Basic and Applied Research	-	65,368
Agricultural Research-Basic and Applied Research Total				<u>-</u>	<u>528,349</u>
Animal and Plant Health Inspection Serv	10.025	Direct	Plant and Animal Disease, Pest Control, and Animal Care	-	435,598
MA Dept of Agricultural Resources	10.156	015458-00002 AM190100XXXXG060	Federal-State Marketing Improvement Program	-	(12,238)
Center for Produce Safety	10.170	2019CPS13	Specialty Crop Block Grant Program - Farm Bill	11,077	11,077
MA Dept of Agricultural Resources	10.170	015901-00002	Specialty Crop Block Grant Program - Farm Bill	-	22,405
MA Dept of Agricultural Resources	10.170	016765-00002	Specialty Crop Block Grant Program - Farm Bill	-	2,679
MA Dept of Agricultural Resources	10.170	118-1541	Specialty Crop Block Grant Program - Farm Bill	-	1,401
MA Dept of Agricultural Resources	10.170	119-1663 015338-00002	Specialty Crop Block Grant Program - Farm Bill	-	45,165
MA Dept of Agricultural Resources	10.170	119-1668	Specialty Crop Block Grant Program - Farm Bill	-	4,795
MA Dept of Agricultural Resources	10.170	21SCBPMA1011 16768	Specialty Crop Block Grant Program - Farm Bill	-	936
Specialty Crop Block Grant Program - Farm Bill Total				<u>11,077</u>	<u>88,458</u>
Natl Institute of Food and Agriculture	10.202	Direct	Cooperative Forestry Research	-	400,884
U.S. Department of Agriculture	10.202	Direct	Cooperative Forestry Research	-	868
Cooperative Forestry Research Total				<u>-</u>	<u>401,752</u>
Natl Institute of Food and Agriculture	10.203	Direct	Payments to Agricultural Experiment Stations Under the Hatch Act	-	2,472,256
U.S. Department of Agriculture	10.203	Direct	Payments to Agricultural Experiment Stations Under the Hatch Act	-	253,990
Payments to Agricultural Experiment Stations Under the Hatch Act Total				<u>-</u>	<u>2,726,246</u>
University of Vermont	10.205	20193864029877	Payments to 1890 Land-Grant Colleges and Tuskegee University	-	3,009
Natl Institute of Food and Agriculture	10.207	Direct	Animal Health and Disease Research	-	14,662
Rensselaer Polytechnic Institute	10.215	20185864028415	Sustainable Agriculture Research and Education	-	552
University of Connecticut	10.215	2017-38640-26915	Sustainable Agriculture Research and Education	-	10,001
University of Vermont	10.215	2017-38640-26915	Sustainable Agriculture Research and Education	-	8,290
University of Vermont	10.215	2018-38640-28415	Sustainable Agriculture Research and Education	-	1,819
University of Vermont	10.215	20182864028415	Sustainable Agriculture Research and Education	-	8,490
University of Vermont	10.215	20183864028415	Sustainable Agriculture Research and Education	-	23,868
University of Vermont	10.215	20193864029877	Sustainable Agriculture Research and Education	14,998	69,763
University of Vermont	10.215	20203864031520	Sustainable Agriculture Research and Education	-	121,748
University of Vermont	10.215	GNE20-229-34268	Sustainable Agriculture Research and Education	-	2,633
University of Vermont	10.215	LNE18-365-32231	Sustainable Agriculture Research and Education	-	19,694
Sustainable Agriculture Research and Education Total				<u>15,194</u>	<u>266,858</u>
University of Maryland	10.250	58600000052	Agricultural and Rural Economic Research, Cooperative Agreements and Collaborations	-	4,229
University of Georgia	10.303	SUB00002423	Integrated Programs	-	11,155
Cornell University	10.304	80289-10778	Homeland Security-Agricultural	-	(2,331)
University of Florida	10.304	20163762025850	Homeland Security-Agricultural	-	15,450
University of Florida	10.304	20213762135791	Homeland Security-Agricultural	-	33,045
Homeland Security-Agricultural Total				<u>-</u>	<u>46,164</u>
Cornell University	10.309	20205118132197	Specialty Crop Research Initiative	-	20,398
Rutgers University	10.309	2018-51181-28383	Specialty Crop Research Initiative	-	108,689
University of Minnesota	10.309	20215118135861	Specialty Crop Research Initiative	-	1,166
Specialty Crop Research Initiative Total				<u>-</u>	<u>130,253</u>

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
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Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
Natl Institute of Food and Agriculture	10.310	Direct	Agriculture and Food Research Initiative (AFRI)	192,504	2,075,781
U.S. Department of Agriculture	10.310	Direct	Agriculture and Food Research Initiative (AFRI)	13,197	246,152
Cornell University	10.310	20216701535235	Agriculture and Food Research Initiative (AFRI)	-	3,103
CT Agricultural Experiment Station	10.310	015702-00002 CAES-2020-23016-1	Agriculture and Food Research Initiative (AFRI)	-	22,567
CT Agricultural Experiment Station	10.310	CAES-2020-23000-1	Agriculture and Food Research Initiative (AFRI)	-	76,255
Harvard forest	10.310	20216800834102	Agriculture and Food Research Initiative (AFRI)	-	39,710
Iowa State University	10.310	020682B	Agriculture and Food Research Initiative (AFRI)	-	6,671
Louisiana State University	10.310	LSU PO 000019947	Agriculture and Food Research Initiative (AFRI)	-	6,814
North Carolina State University	10.310	2015-68004-23179	Agriculture and Food Research Initiative (AFRI)	-	(1)
North Carolina State University	10.310	2019-0644-01	Agriculture and Food Research Initiative (AFRI)	-	49,330
Ohio State University	10.310	20156800632555	Agriculture and Food Research Initiative (AFRI)	-	17,741
Pennsylvania State University	10.310	20196702329346	Agriculture and Food Research Initiative (AFRI)	-	15,421
Tufts University	10.310	AG0032/PO# EP0210330	Agriculture and Food Research Initiative (AFRI)	-	17,995
University of Connecticut	10.310	20216701734027	Agriculture and Food Research Initiative (AFRI)	-	26,329
University of Maryland	10.310	2018-67032-27697	Agriculture and Food Research Initiative (AFRI)	-	15,563
University of Rhode Island	10.310	0008733/07262021A	Agriculture and Food Research Initiative (AFRI)	-	45,979
University of Wisconsin Madison	10.310	20196702329637	Agriculture and Food Research Initiative (AFRI)	-	30,057
West Virginia University	10.310	20206701430901	Agriculture and Food Research Initiative (AFRI)	-	15,361
World Farmers	10.310	2018701728601	Agriculture and Food Research Initiative (AFRI)	-	1,004
Agriculture and Food Research Initiative (AFRI) Total				205,701	2,711,832
World Farmers	10.311	20214940035643	Beginning Farmer and Rancher Development Program	-	44
Natl Institute of Food and Agriculture	10.318	Direct	Women and Minorities in Science, Technology, Engineering, and Mathematics Fields	4,670	49,541
Natl Institute of Food and Agriculture	10.328	Direct	National Food Safety Training, Education, Extension, Outreach, and Technical Assistance	-	206,956
University of Vermont	10.328	2018-70020-28878	National Food Safety Training, Education, Extension, Outreach, and Technical Assistance	-	2,759
University of Vermont	10.328	20207002032264	National Food Safety Training, Education, Extension, Outreach, and Technical Assistance	-	9,045
National Food Safety Training, Education, Extension, Outreach, and Technical Assistance Competitive Grants Program Total				-	218,760
Natl Institute of Food and Agriculture	10.329	Direct	Crop Protection and Pest Management Competitive Grants Program	6,472	529,472
Cornell University	10.329	2018700062882	Crop Protection and Pest Management Competitive Grants Program	-	5,790
Crop Protection and Pest Management Competitive Grants Program Total				6,472	535,262
Nuestras Raices, Inc.	10.443	UM-2738	Outreach and Assistance for Socially Disadvantaged and Veteran Farmers and Ranchers	-	6,289
University of Delaware	10.500	20187002728588	Cooperative Extension Service	17,500	68,237
University of New Hampshire	10.500	20204640132797	Cooperative Extension Service	-	2,814
Cooperative Extension Service Total				17,500	71,051
Natl Institute of Food and Agriculture	10.515	Direct	Renewable Resources Extension Act and National Focus Fund Projects	-	20,224
U.S. Forest Service	10.608	Direct	Food for Education	-	13,090
U.S. Forest Service	10.652	Direct	Forestry Research	-	(8,553)
MA Dept of Conservation and Recreation	10.664	4CTDCR3760CUMASSUNIV	Cooperative forestry Assistance	-	8,625
Berkshire Regional Planning Commission	10.678	20DC11094200275	Forest Stewardship Program	-	36,818
U.S. Forest Service	10.680	Direct	Forest Health Protection	-	83,562
U.S. Forest Service	10.699	Direct	Partnership Agreements	-	167,160
U.S. Forest Service	10.707	Direct	Research Joint Venture and Cost Reimbursable Agreements	-	736,632
Natural Resources Conserv Services	10.902	Direct	Soil and Water Conservation	-	168,117
Indiana University of Pennsylvania	10.902	NR203A750023C016	Soil and Water Conservation	-	42,992
Soil and Water Conservation Total				-	211,109
Natural Resources Conserv Services	10.903	Direct	Soil Survey	-	140,845
U.S. Department of Agriculture	10.912	Direct	Environmental Quality Incentives Program	-	18,035
American Farmland Trust	10.912	NR213A750013G009	Environmental Quality Incentives Program	-	17,892
Environmental Quality Incentives Program Total				-	35,927
MA Dept of Agricultural Resources	10.931	2511-0972	Agricultural Conservation Easement Program	-	635
Agricultural Research Service	10.U01	59-8010-9-002	Department of Agriculture Contracts	-	33,867
Cape Cod Cranberry Growers' Assoc	10.U02	198043	Department of Agriculture Contracts	-	7,228
MA Dept of Agricultural Resources	10.U03	015902-00002	Department of Agriculture Contracts	-	19,434
Natural Resources Conserv Services	10.U04	NR193A750023C007	Department of Agriculture Contracts	9,165	10,808
U.S. Forest Service	10.U05	FS 18-JV-11242307-083 MOD 004	Department of Agriculture Contracts	-	26,902
University of Maryland	10.U06	IR4 11811	Department of Agriculture Contracts	-	6,925
Department of Agriculture Total				284,777	9,788,512

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

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

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

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

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

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

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

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

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Franklin County Sheriff's Office	93.243	H79T1084139	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	52,214
MA Department of Public Health	93.243	INTF4107H78500224088	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	11,619
University of California Regents	93.243	1647 G UA158	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	40,196
Washington State Health Care Authority	93.243	H79SM061705	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	2
Substance Abuse and Mental Health Services-Projects of Regional and National Significance Total				<u>571,780</u>	<u>2,060,503</u>
Health Resources Service Administration	93.247	Direct	Advanced Nursing Education Workforce Grant Program	686,044	869,471
Centers for Disease Control & Prevention	93.262	Direct	Occupational Safety and Health Program	(1,640)	118,571
Natl Inst for Occupational Safety&Health	93.262	Direct	Occupational Safety and Health Program	564,094	1,689,207
The Center for Construction Resear & Train	93.262	3001-1109	Occupational Safety and Health Program	-	5
The Center for Construction Resear & Train	93.262	3001-1209	Occupational Safety and Health Program	-	67,063
The Center for Construction Resear & Train	93.262	3001-1309	Occupational Safety and Health Program	-	159,933
The Mary Imogene Bassett Hospital	93.262	5U54OH007542 UML5	Occupational Safety and Health Program	-	29,001
The Mary Imogene Bassett Hospital	93.262	5U54OH007542 UML6	Occupational Safety and Health Program	-	159,244
University of Connecticut Health Center	93.262	UCHC7-152428898; P0568370	Occupational Safety and Health Program	-	274,867
Occupational Safety and Health Program Total				<u>562,454</u>	<u>2,497,891</u>
Beth Israel Deaconess Medical Center	93.266	01063384	Health Systems Strengthening and HIV/AIDS Prevention, Care and Treatment under the President's Emergency Plan for AIDS Relief	-	219,560
National Institutes of Health	93.273	Direct	Alcohol Research Programs	190,098	3,213,018
Beth Israel Deaconess Medical Center	93.273	01061881	Alcohol Research Programs	-	(1,660)
Michigan State University	93.273	RC111989B	Alcohol Research Programs	-	63,899
Praxis, Inc.	93.273	R42AA026751	Alcohol Research Programs	-	250,399
Praxis, Inc.	93.273	SMELSON	Alcohol Research Programs	-	(407)
Rhode Island Hospital	93.273	7017137290	Alcohol Research Programs	-	4,203
University of Wisconsin Madison	93.273	0000001875	Alcohol Research Programs	-	50,524
University of Wisconsin Madison	93.273	R34 AA025675-01	Alcohol Research Programs	-	26,947
Alcohol Research Programs Total				<u>190,098</u>	<u>3,606,923</u>
National Institutes of Health	93.279	Direct	Drug Abuse and Addiction Research Programs	46,573	2,799,734
Albert Einstein College of Medicine	93.279	321012	Drug Abuse and Addiction Research Programs	-	13,618
Baystate Medical Center, Inc.	93.279	18207	Drug Abuse and Addiction Research Programs	-	26,641
Baystate Medical Center, Inc.	93.279	19142	Drug Abuse and Addiction Research Programs	-	216,628
Continueyou, LLC.	93.279	1R44DA046151	Drug Abuse and Addiction Research Programs	-	(869)
Continueyou, LLC.	93.279	4 R44 DA046151-02	Drug Abuse and Addiction Research Programs	-	103,723
Florida International University	93.279	000218	Drug Abuse and Addiction Research Programs	-	14,350
George Mason University	93.279	E2056602	Drug Abuse and Addiction Research Programs	7,805	259,368
Hennepin Healthcare Research Institute	93.279	15390-14	Drug Abuse and Addiction Research Programs	-	13,286
Kaiser Foundation Research Institute	93.279	RNG210715-MPCI	Drug Abuse and Addiction Research Programs	-	11,857
Oregon Social Learning Center, Inc.	93.279	1-R24-DA051950-01	Drug Abuse and Addiction Research Programs	-	27,123
Oregon Social Learning Center, Inc.	93.279	R01DA041425	Drug Abuse and Addiction Research Programs	-	220,769
Q2i, LLC.	93.279	4 R42 DA049448-03	Drug Abuse and Addiction Research Programs	-	255,806
Tufts Medical Center	93.279	5021813_SERV	Drug Abuse and Addiction Research Programs	-	8,720
University of Wisconsin Madison	93.279	7R01DA041641-02	Drug Abuse and Addiction Research Programs	-	3,246
Virginia Polytechnic Inst and State Univ	93.279	432096-19340	Drug Abuse and Addiction Research Programs	-	17,847
Drug Abuse and Addiction Research Programs Total				<u>54,378</u>	<u>3,991,847</u>
National Institutes of Health	93.286	Direct	Discovery and Applied Research for Technological Innovations to Improve Human Health	3,490,755	7,345,246
National Institutes of Health	93.286	Direct/3 U54 HL143541-02S1	COVID-19 Discovery and Applied Research for Technological Innovations to Improve Human Health	769,717	4,776,943
National Institutes of Health	93.286	Direct/3 U54 HL143541-02S2	COVID-19 Discovery and Applied Research for Technological Innovations to Improve Human Health	11,569,920	44,962,459
University of Memphis	93.286	5-40926	Discovery and Applied Research for Technological Innovations to Improve Human Health	-	85,228
Worcester Polytechnic Institute	93.286	18-211110-01	Discovery and Applied Research for Technological Innovations to Improve Human Health	-	14,527
Discovery and Applied Research for Technological Innovations to Improve Human Health Total				<u>15,830,392</u>	<u>57,184,403</u>

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

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National Institutes of Health	93.395	Direct	Cancer Treatment Research	386,804	1,406,693
American College of Radiology	93.395	1821	Cancer Treatment Research	-	599,045
American College of Radiology	93.395	1822	Cancer Treatment Research	-	1,029,187
Children's Hospital of Philadelphia	93.395	A4LL11131	Cancer Treatment Research	-	29,516
Ernest Pharmaceuticals LLC.	93.395	UM Reference # 443	Cancer Treatment Research	-	37,986
Massachusetts General Hospital	93.395	234120	Cancer Treatment Research	-	201,843
Northwestern University	93.395	CA219013	Cancer Treatment Research	-	7,568
Pennsylvania State University	93.395	S002223-DHHS	Cancer Treatment Research	-	44,018
Pennsylvania State University	93.395	U01CA265709	Cancer Treatment Research	-	28,428
University of Virginia	93.395	5 R01 CA234478-04	Cancer Treatment Research	-	174,661
Cancer Treatment Research Total				<u>386,804</u>	<u>3,558,935</u>
National Institutes of Health	93.396	Direct	Cancer Biology Research	582,917	4,320,691
Boston Children's Hospital	93.396	1R01CA233671-01A1	Cancer Biology Research	-	(26,511)
Boston Children's Hospital	93.396	5R01CA233671-02	Cancer Biology Research	-	33,387
Carnegie Mellon University	93.396	1090703-454413	Cancer Biology Research	-	10,637
Dana Farber Cancer Institute	93.396	1172202	Cancer Biology Research	-	5,582
Dana Farber Cancer Institute	93.396	1172203	Cancer Biology Research	-	61,591
Duke University	93.396	A032494	Cancer Biology Research	-	254,091
Massachusetts General Hospital	93.396	229519	Cancer Biology Research	-	4,284
Texas A&M University	93.396	U01CA225566	Cancer Biology Research	-	145,126
University of Miami	93.396	OS00000128	Cancer Biology Research	-	15,952
Cancer Biology Research Total				<u>582,917</u>	<u>4,825,030</u>
National Institutes of Health	93.397	Direct	Cancer Centers Support Grants	-	1,297,526
Beth Israel Deaconess Medical Center	93.397	01063012	Cancer Centers Support Grants	-	11,615
Indiana University	93.397	8674	Cancer Centers Support Grants	-	25,847
Oregon Health and Science University	93.397	1010517-009-UMASS	Cancer Centers Support Grants	-	10,232
Cancer Centers Support Grants Total				<u>-</u>	<u>1,345,220</u>
National Institutes of Health	93.398	Direct	Cancer Research Manpower	-	1,072,527
Dana Farber Cancer Institute	93.398	R25CA214256	Cancer Research Manpower	-	26,278
Cancer Research Manpower Total				<u>-</u>	<u>1,098,805</u>
American College of Ob/Gyn	93.421	603847393	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	-	129,484
National Foundation for CDC & Prevention	93.421	41404	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	-	73,830
National Assoc of Chronic Disease Directors	93.421	1112020	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	-	72,764
National Assoc of Chronic Disease Directors	93.421	220102	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	-	123,045
NH Network of Public Health Institutes	93.421	G2072_AG-0672	Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	-	126,821
Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health Total				<u>-</u>	<u>525,944</u>
National Institutes of Health	93.424	Direct	NON-ACA/PPHF-Building Capacity of the Public Health System to Improve Population Health through National Nonprofit Organizations	55,340	583,576
Administration for Community Living	93.433	Direct	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	72,011	1,112,493
U.S. Dept of Health and Human Services	93.433	Direct	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	179,686	1,121,310
Boston University	93.433	4500003701	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	207,807
Brandeis University	93.433	404244	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	10,305
Brandeis University	93.433	90DPGE0001-01-03-00	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	4,117
Elder Services of The Merrimack Valley	93.433	90ADPI0056-01-01	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	31,047
Langston University	93.433	LU 5-17045-1	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	110,926

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Langston University	93.433	LU 5-17045-1 / P0170680 (RRTC Y3)	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	55,943
Langston University	93.433	LU 5-17045-1 / P0170680 (RRTC)	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	(531)
Langston University	93.433	LU 5-17048-1 / P0176739	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	5,275
University of Illinois at Chicago	93.433	18180	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	37,259
University of Minnesota	93.433	74486 Subaward A007250503	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	-	87,398
ACL National Institute on Disability, Independent Living, and Rehabilitation Research Total				<u>251,697</u>	<u>2,783,349</u>
Elder Services of The Merrimack Valley	93.470	90ADPI0065	Alzheimer's Disease Program Initiative (ADPI)	-	47,125
Florida Development Disabilities Council	93.630	1022EM19H	Developmental Disabilities Basic Support and Advocacy Grants	-	5
Texas Council Developmental Disabilities	93.630	20139	Developmental Disabilities Basic Support and Advocacy Grants	102,582	131,327
Texas Council Developmental Disabilities	93.630	20213	Developmental Disabilities Basic Support and Advocacy Grants	120,051	131,044
Developmental Disabilities Basic Support and Advocacy Grants Total				<u>222,633</u>	<u>262,376</u>
U.S. Dept of Health and Human Services Administration for Community Living	93.631	Direct	Developmental Disabilities Projects of National Significance	-	(4)
	93.632	Direct/90DDDC005009-01-03	COVID-19 University Centers for Excellence in Developmental Disabilities Education, Research, and Service	-	33,659
U.S. Dept of Health and Human Services	93.632	Direct	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	53,134	582,745
Boston Children's Hospital	93.632	90DDUC0059-01-00	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	-	(66)
University Centers for Excellence in Developmental Disabilities Education, Research, and Service Total				<u>53,134</u>	<u>616,338</u>
Centers for Medicare & Medicaid Services	93.638	Direct	ACA-Transforming Clinical Practice Initiative: Practice Transformation Networks (PTNs)	(1,390)	(1,390)
Elder Services of The Merrimack Valley	93.761	HHS-2019-ACL-AOA-FPS6-0312	Evidence-Based Falls Prevention Programs Financed Solely by Prevention and Public Health Funds (PPHF)	-	48,010
MA Dept of Public Health, Bsas	93.788	INTF2400H78500224399	Opioid STR	-	(2,582)
Massachusetts General Hospital	93.817	6 HITEP180042-01-04	Hospital Preparedness Program (HPP) Ebola Preparedness and Response Activities	-	42,585
National Institutes of Health	93.837	Direct	Cardiovascular Diseases Research	825,104	5,553,706
Augusta University	93.837	32623-2	Cardiovascular Diseases Research	-	113,516
Augusta University	93.837	36183-2	Cardiovascular Diseases Research	-	6,266
Boston Children's Hospital	93.837	GENFD0001858268	Cardiovascular Diseases Research	-	152,138
Boston University	93.837	4500002295	Cardiovascular Diseases Research	-	39,320
Boston University	93.837	4500002987	Cardiovascular Diseases Research	-	212,395
Boston University	93.837	4500003030	Cardiovascular Diseases Research	-	372,474
Brigham and Women's Hospital	93.837	113892	Cardiovascular Diseases Research	-	3,080
Harvard Medical School	93.837	150247-5113691-0008	Cardiovascular Diseases Research	-	229,466
Illinois Institute of Technology	93.837	A21-0003-S001	Cardiovascular Diseases Research	-	345,782
Massachusetts General Hospital	93.837	230189	Cardiovascular Diseases Research	-	309
Massachusetts General Hospital	93.837	236261	Cardiovascular Diseases Research	-	559
Massachusetts Institute of Technology	93.837	S4581/PO 164251	Cardiovascular Diseases Research	-	(4,632)
Miriam Hospital	93.837	710-7147188	Cardiovascular Diseases Research	-	9,336
New England Research Institute, Inc.	93.837	CT1500024	Cardiovascular Diseases Research	-	18,963
Northwestern University	93.837	60058632 UMMS	Cardiovascular Diseases Research	-	17,754
Rush University Medical Center	93.837	18052902-Sub02	Cardiovascular Diseases Research	-	7,416
Smith College	93.837	636076-01	Cardiovascular Diseases Research	-	7,897
The General Hospital Corporation	93.837	R01HL143070	Cardiovascular Diseases Research	-	65,047
University of Arizona	93.837	639661	Cardiovascular Diseases Research	-	91,251
University of Texas at Arlington	93.837	020GC0400	Cardiovascular Diseases Research	-	26,313
University of Vermont	93.837	AWD00000483SUB00000227	Cardiovascular Diseases Research	-	27,074
University of Wisconsin	93.837	830K513	Cardiovascular Diseases Research	-	475,910
Washington University	93.837	WU-18-434	Cardiovascular Diseases Research	-	39,169
Yale University	93.837	GR100590	Cardiovascular Diseases Research	-	26,591
Cardiovascular Diseases Research Total				<u>825,104</u>	<u>7,837,100</u>

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

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

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

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Brigham and Women's Hospital	93.866	120969	Aging Research	-	19,119
Brigham and Women's Hospital	93.866	123965	Aging Research	-	82,284
Brown University	93.866	US4AG063546	Aging Research	-	57,137
Clemson University	93.866	1R03AG065637-01	Aging Research	-	20,495
Columbia University Medical Center	93.866	1(GG17425-01)	Aging Research	-	143,359
Hebrew Senior Life	93.866	90083	Aging Research	-	18,139
Kaiser Foundation Research Institute	93.866	OH-14-1994-H_10	Aging Research	-	20,938
Leadingage	93.866	R21AG069019	Aging Research	-	31,412
Massachusetts General Hospital	93.866	226821	Aging Research	-	74,600
Massachusetts General Hospital	93.866	239567	Aging Research	-	210,433
North CA Institute for Research and Ed	93.866	R24AG064025	Aging Research	-	41,442
Purdue University	93.866	1R55AG062767-01	Aging Research	-	5,234
State University of N.Y. at Buffalo Suny	93.866	R1272675	Aging Research	-	2,469
State University of N.Y. at Buffalo Suny	93.866	R1293036	Aging Research	-	11,876
The American Geriatrics Society	93.866	1R25AG071488-01-MA	Aging Research	-	59,382
University of Alabama	93.866	A19-0473-S001	Aging Research	-	91,570
University of California Santa Barbara	93.866	KK2267	Aging Research	-	18,898
University of Connecticut Health Center	93.866	UCHC7-137277511	Aging Research	-	24,356
University of Pennsylvania	93.866	5R55AG06913002	Aging Research	-	109,479
University of Pittsburgh	93.866	AWD00003000 (135310-8)	Aging Research	-	258,817
University of Washington	93.866	UWSC10987	Aging Research	-	130,887
Aging Research Total				<u>2,258,964</u>	<u>19,464,382</u>
National Institutes of Health	93.867	Direct	Vision Research	252,679	2,579,077
Brigham and Women's Hospital	93.867	119243	Vision Research	-	(1,609)
Montana State University	93.867	G341-20-W8265	Vision Research	-	20,210
Schepens Eye Research Institute	93.867	533483	Vision Research	-	58,427
University of Maryland	93.867	98910-Z0407201	Vision Research	-	79,469
Vision Research Total				<u>252,679</u>	<u>2,735,574</u>
National Institutes of Health	93.879	Direct	Medical Library Assistance	600,228	2,902,972
Medical Library Assistance Total				<u>600,228</u>	<u>2,902,972</u>
Harvard University	93.884	158269.5098234.0505	Primary Care Training and Enhancement	-	6,283
Mayo Clinic Rochester	93.884	UMA-268163/PO #68340439	Primary Care Training and Enhancement	-	19,579
Primary Care Training and Enhancement Total				<u>-</u>	<u>25,862</u>
Health Resources Service Administration	93.918	Direct	Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	-	448,774
Health Resources Service Administration	93.918	Direct/1 H7 CHA36799-01-00	COVID-19 Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	-	(14,525)
MA Department of Public Health	93.918	INTF4944MM3181926039	Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	-	901,662
MA Department of Public Health	93.918	INTF4944MM3181926039	Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	-	(8,536)
Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease Total				<u>-</u>	<u>1,327,375</u>
Health Resources Service Administration	93.928	Direct	Special Projects of National Significance	624,694	994,753
Boston University	93.928	4500003358	Special Projects of National Significance	-	53,363
Boston University	93.928	4500003404	Special Projects of National Significance	-	18,349
Special Projects of National Significance Total				<u>624,694</u>	<u>1,066,465</u>
New York University	93.936	18-A0-00-1001556	National Institutes of Health Acquired Immunodeficiency Syndrome Research Loan Repayment Program	-	143,487
National Institutes of Health	93.989	Direct	International Research and Research Training	226,923	443,386
Hanoi Medical University	93.989	1D43TW011394-01	International Research and Research Training	-	59,745
National Center for Tuberculosis and Lung Diseases	93.989	03/02/2020	International Research and Research Training	-	(411)
International Research and Research Training Total				<u>226,923</u>	<u>502,720</u>
MA Department of Public Health	93.991	INTF3401M03181228065	Preventive Health and Health Services Block Grant	-	78,159
MA Department of Public Health	93.994	INTF3054M03182122021	Maternal and Child Health Services Block Grant to the States	-	2,044
Centers for Disease Control & Prevention	93.U01	75D30121P10027	COVID-19 Department of Health and Human Services Contracts	-	297,337
Centers for Disease Control & Prevention	93.U02	19IPA1905156	Department of Health and Human Services Contracts	-	23,009

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Children's Research Institute	93.U03	Site Agmt#: 30004438	Miscellaneous Department of Health and Human Services	-	(82,744)
Duke University	93.U04	226749	Department of Health and Human Services Contracts	-	41,435
Duke University	93.U05	SA-D401-02	COVID-19 Department of Health and Human Services Contracts	-	190,533
Harvard Medical School	93.U06	149880.5109492.0208	Miscellaneous Department of Health and Human Services	-	157,493
Harvard Pilgrim Health Care, Inc.	93.U07	200-2011-42037	Department of Health and Human Services Contracts	-	19,926
Harvard Pilgrim Health Care, Inc.	93.U08	HHSF22320140030I	Department of Health and Human Services Contracts	-	(1,724)
Harvard Pilgrim Health Care, Inc.	93.U09	WO1026	COVID-19 Department of Health and Human Services Contracts	-	43,217
Harvard School of Public Health	93.U10	109786.5110785	Department of Health and Human Services Contracts	-	608,121
Harvard School of Public Health	93.U11	109786.5110783	Department of Health and Human Services Contracts	-	421,303
Health Research, Inc.	93.U12	6177-02	Department of Health and Human Services Contracts	-	220,391
Immad LLC	93.U13	HHSN271201800039C	Department of Health and Human Services Contracts	-	(1,162)
Johns Hopkins University	93.U14	PO 2001837780	Miscellaneous Department of Health and Human Services	-	(1,793)
Langston University	93.U15	LU 5-17044-1	Department of Health and Human Services Contracts	-	(1)
Leidos Biomedical Research, Inc.	93.U16	20CTA-DC005	COVID-19 Department of Health and Human Services Contracts	-	38,090
Leidos Biomedical Research, Inc.	93.U17	20CTA-DM00027	COVID-19 Department of Health and Human Services Contracts	-	168,413
Leidos, Inc.	93.U18	21X131F	Department of Health and Human Services Contracts	3,000	14,049
Mathematica Policy Research	93.U19	HHSF23337038T	Department of Health and Human Services Contracts	-	41,718
Nicolaide R&D LLC.	93.U20	75N91019C00054	Department of Health and Human Services Contracts	-	(14,940)
National Institutes of Health	93.U21	HHSN311201700307P	Department of Health and Human Services Contracts	-	3,262
National Institutes of Health	93.U22	1 R01 HD083311-01A1	Department of Health and Human Services Contracts	-	2,013
National Institutes of Health	93.U23	75N92019P00408	Department of Health and Human Services Contracts	-	(904)
National Institutes of Health	93.U24	75N93019C00064	Department of Health and Human Services Contracts	433,685	1,101,769
National Institutes of Health	93.U25	75N93020C00049	Department of Health and Human Services Contracts	822,945	1,194,155
PPD Investigator Services, LLC.	93.U26	ACTIV-2/A5401 IND#151193	COVID-19 Department of Health and Human Services Contracts	-	7,117
Research Triangle Institute	93.U27	40-312-0214780-66515L	Department of Health and Human Services Contracts	-	36,432
Seattle Children's Hospital	93.U28	12755SUB	Department of Health and Human Services Contracts	-	10,410
Swedish Medical Center	93.U29	SMC- 223004 B.01	Department of Health and Human Services Contracts	-	54,266
The Broad Institute	93.U30	5000854-5500001511	Department of Health and Human Services Contracts	-	198,107
University of Alabama	93.U31	HHSN26800001	COVID-19 Department of Health and Human Services Contracts	-	49,125
University of New Mexico	93.U32	3RJK7	Department of Health and Human Services Contracts	-	191,819
University of North Carolina	93.U33	5118984	COVID-19 Department of Health and Human Services Contracts	-	2,290
University of North Carolina	93.U34	5115233	Department of Health and Human Services Contracts	-	7,438
University of Wisconsin Madison	93.U35	75N93021C00004	Department of Health and Human Services Contracts	-	255,482
MA Department of Public Health	93.U36	MEDISERVICESORGM2M00014	Department of Health and Human Services Contracts	-	22,953
MA Department of Public Health	93.U37	MEDISERVICESORGM2M00014	COVID-19 Department of Health and Human Services Contracts	-	83,216
Department of Health and Human Services Total				50,471,347	319,082,557
Department of Homeland Security					
MA Emergency Management Agency	97.039	ISACDAH437905UM821A	Hazard Mitigation Grant	-	16,267
U.S. Department of Homeland Security	97.044	Direct	Assistance to Firefighters Grant	3,898	146,276
U.S. Department of Homeland Security	97.108	Direct	Homeland Security, Research, Testing, Evaluation, and Demonstration of Technologies	-	19,220
Department of Homeland Security Total				3,898	181,763
Department of Housing and Urban Development					
Town of Chester	14.228	016055-00002	Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii	-	28,089
Town of Chester	14.228	016366-00002	Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii	-	86,465
Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii Total				-	114,554
U.S. Dept of Housing & Urban Development	14.906	Direct	Healthy Homes Technical Studies Grants	40,405	215,377
Department of Housing and Urban Development Total				40,405	329,931
Department of Justice					
North American Indian Center of Boston, Inc	16.016	2015-UW-AX-0009	Culturally and Linguistically Specific Services Program	-	(4,327)
U.S. Department of Justice	16.543	Direct	Missing Children's Assistance	-	171,200
Fox Valley Technical College	16.543	2019MCFXK064	Missing Children's Assistance	-	26,636
Missing Children's Assistance Total				-	197,873
National Institute of Justice	16.560	Direct	National Institute of Justice Research, Evaluation, and Development Project Grants	120,057	295,552
Cuny City College	16.560	2017-VT-BX-0002	National Institute of Justice Research, Evaluation, and Development Project Grants	-	3,252
Development Services Group, Inc	16.560	DSG - UML 2020-01	National Institute of Justice Research, Evaluation, and Development Project Grants	-	80,855

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Texas A&M University	16.560	TAMU-2021-420376-01	National Institute of Justice Research, Evaluation, and Development Project Grants	-	23,078
National Institute of Justice Research, Evaluation, and Development Project Grants Total				<u>120,057</u>	<u>402,737</u>
MA Office for Victim Assistance	16.575	015784-00002	Crime Victim Assistance	-	64,125
MA Office for Victim Assistance	16.575	ISAVWAVOCA0000EVWC21AA	Crime Victim Assistance	-	128,382
MA Office for Victim Assistance	16.575	VOCA 2018-V2-GX-0064	COVID-19 Crime Victim Assistance	-	22
MA Office for Victim Assistance	16.575	VOCA2020EVWCEMRGNCY 15718	Crime Victim Assistance	-	171
Crime Victim Assistance Total				<u>-</u>	<u>192,700</u>
Mass General Brigham Incorporated	16.582	120708	Crime Victim Assistance/Discretionary Grants	-	(3,247)
Town of Amherst	16.590	015940-00002	Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program	-	69,819
Town of Belchertown	16.590	015942-00002	Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program	-	53,195
Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program Total				<u>-</u>	<u>123,014</u>
U.S. Department of Justice	16.602	Direct	Corrections-Research and Evaluation and Policy formulation	58,757	115,669
Fox Valley Technical College	16.608	D2020010054	Tribal Justice Systems and Alcohol and Substance Abuse	-	19,570
City of Chelsea	16.610	2018-181	Regional Information Sharing Systems	-	43,060
U.S. Department of Justice	16.710	Direct	Public Safety Partnership and Community Policing Grants	-	4,537
U.S. Department of Justice	16.726	Direct	Juvenile Mentoring Program	-	10,573
National 4-H Council	16.726	2019-MU-FX-0002	Juvenile Mentoring Program	-	8,779
National 4-H Council	16.726	2020-JU-FX-0031	Juvenile Mentoring Program	-	53,723
Juvenile Mentoring Program Total				<u>-</u>	<u>73,075</u>
City of Lowell	16.738	PO # 18000093-00	Edward Byrne Memorial Justice Assistance Grant Program	-	31,449
City of Lowell	16.745	PO# 21100627	Criminal and Juvenile Justice and Mental Health Collaboration Program	-	34,144
City of Lowell	16.754	PO # 18000212-00	Harold Rogers Prescription Drug Monitoring Program	-	29,567
Executive Office of The Trial Court	16.812	BJA-2016-9197	Second Chance Act Reentry Initiative	-	50,751
City of Lowell	16.838	PO# 21100628	Comprehensive Opioid, Stimulant, and Substance Abuse Program	-	52,479
Federal Bureau of Investigation	16.U01	15F06721F0001320	Department of Justice Contracts	-	374,821
Federal Bureau of Investigation	16.U02	15F06721P0003689	Department of Justice Contracts	-	147,828
Federal Bureau of Investigation	16.U03	15F06721P0003624	Department of Justice Contracts	122,566	657,194
Federal Bureau of Investigation	16.U04	15F06720P0001744	Department of Justice Contracts	22,886	190,089
Department of Justice Total				<u>324,266</u>	<u>2,732,946</u>
Department of Labor					
MA Executive Office of Elder Affairs	17.235	ISAELD91101073UMB21A	Senior Community Service Employment Program	-	24,798
Council of State Governments	17.U01	21-A1-053-280	COVID-19 Department of Health and Human Services Contracts	-	22,748
Council of State Governments	17.U02	20-SA-053-2801	Department of Labor Contracts	-	42,899
Department of Labor Total				<u>-</u>	<u>90,445</u>
Department of State					
Meridian International Center	19.009	021-0007-1117-03	Academic Exchange Programs - Undergraduate Programs	-	882
U.S. Department of State	19.019	Direct	International Programs to Combat Human Trafficking	-	27,275
Global Fund To End Modern Slavery	19.019	Service Agreement dated 9/4/19	International Programs to Combat Human Trafficking	149,738	229,255
New York University	19.019	S1471-02	International Programs to Combat Human Trafficking	-	3,079
New York University	19.019	S1472-02	International Programs to Combat Human Trafficking	-	6,895
New York University	19.019	S1646-01/ A22-0337-S001	International Programs to Combat Human Trafficking	-	4,148
University of Georgia Research Foundation, Inc.	19.019	Award 33006	International Programs to Combat Human Trafficking	-	127,266
International Programs to Combat Human Trafficking Total				<u>149,738</u>	<u>397,918</u>
Department of State Total				<u>149,738</u>	<u>398,800</u>
Department of the Interior					
MA Department of Fish & Game	15.634	F20AP00243	State Wildlife Grants	-	65,081
U.S. Fish and Wildlife Service	15.670	Direct	Adaptive Science	-	62,852
Wildlife Management Institute	15.670	F20AC00356	Adaptive Science	-	142,027
Adaptive Science Total				<u>-</u>	<u>204,879</u>
U.S. Fish and Wildlife Service	15.678	Direct	Cooperative Ecosystem Studies Units	-	4,250
U.S. Geological Survey	15.805	Direct	Assistance to State Water Resources Research Institutes	78,664	119,643
U.S. Geological Survey	15.807	Direct	Earthquake Hazards Program Assistance	-	103,628
Southern California Earthquake Center	15.807	SCON-00002303	Earthquake Hazards Program Assistance	-	29,851
Earthquake Hazards Program Assistance Total				<u>-</u>	<u>133,479</u>

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

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U.S. Environmental Protection Agency	66.511	Direct	Office of Research and Development Consolidated Research/Training/Fellowships	24,643	159,792
Health Effects Institute	66.511	CR63998101	Office of Research and Development Consolidated Research/Training/Fellowships	-	19,773
Office of Research and Development Consolidated Research/Training/Fellowships Total				<u>24,643</u>	<u>179,565</u>
Assoc State Drinking Water Administrator	66.521	84024301	Innovative Water Technology Grant Program	-	26,642
MA Dept of Environmental Protection	66.605	ISA/BRP-RFR-2019-07-319 15537	Performance Partnership Grants	-	(952)
MA Dept of Agricultural Resources	66.700	00A00863 016738-00002	Consolidated Pesticide Enforcement Cooperative Agreements	-	75,483
MA Dept of Agricultural Resources	66.700	119-0027	Consolidated Pesticide Enforcement Cooperative Agreements	-	9,957
MA Dept of Agricultural Resources	66.700	15455-00002	Consolidated Pesticide Enforcement Cooperative Agreements	-	(1,949)
MA Dept of Agricultural Resources	66.700	ISAAGR25110310UMS21A	Consolidated Pesticide Enforcement Cooperative Agreements	-	120,123
Consolidated Pesticide Enforcement Cooperative Agreements Total				<u>-</u>	<u>203,614</u>
U.S. Environmental Protection Agency	66.708	Direct	Pollution Prevention Grants Program	27,383	31,733
Extension Foundation	66.716	8369801	Research, Development, Monitoring, Public Education, Outreach, Training, Demonstrations, and Studies	-	14,155
Battelle Energy Alliance, LLC.	66.U01	241747	Environmental Protection Agency Contracts	-	26,017
The Cadmus Group, Inc.	66.U02	WA1-91 / 022-UMassLowell-1	Environmental Protection Agency Contracts	-	(200)
Environmental Protection Agency Total				<u>100,908</u>	<u>1,121,466</u>
Institute of Museum and Library Services					
Institute of Museum & Library Services	45.312	Direct	National Leadership Grants	-	19,429
Institute of Museum and Library Services Total				<u>-</u>	<u>19,429</u>
Millennium Challenge Corporation					
Millenium Challenge Corporation	85.002	Direct	MCC Foreign Assistance for Overseas Programs	106,503	256,273
Millennium Challenge Corporation Total				<u>106,503</u>	<u>256,273</u>
National Aeronautics and Space Administration					
Jet Propulsion Laboratory	43.001	Direct	Science	-	74,676
NASA Goddard Space Flight Center	43.001	Direct	Science	11,301	1,117,322
National Aero and Space Administration	43.001	Direct	Science	520,027	2,605,618
Brown University	43.001	00001490	Science	-	137,936
California Institute of Technology	43.001	1664193	Science	-	13,050
California Institute of Technology	43.001	1667510	Science	-	12,650
California Institute of Technology	43.001	80NNM0018D0004	Science	-	167,260
California Institute of Technology	43.001	80NNM0018D0004	Science	-	82
Hampton University	43.001	HU-180001	Science	-	24,501
Michigan Technological University	43.001	80NSSC19M0107	Science	-	3,090
Ohio State University	43.001	PORF01614931 Award 60078490	Science	-	57,546
Purdue University	43.001	12000289-06	Science	-	31,162
SETI Institute	43.001	80NSSC19K1230	Science	-	5,027
SETI Institute	43.001	80NSSC21K1103	Science	-	8,479
SETI Institute	43.001	80NSSC21K1480	Science	-	11,317
Smithsonian Astrophysical Observatory	43.001	NAS8-03060	Science	-	8,856
Southwest Research Institute	43.001	M99017N	Science	-	6,386
Space Telescope Science Institute	43.001	HST-GO-15116.005-A	Science	-	4,782
Space Telescope Science Institute	43.001	HST-GO-15330.001-A	Science	-	6,508
Space Telescope Science Institute	43.001	HST-HF2-51484.001-A	Science	-	96,740
Space Telescope Science Institute	43.001	NAS5-26555	Science	-	4,453
Space Telescope Science Institute	43.001	NAS5-26555	Science	-	369,445
Space Telescope Science Institute	43.001	NAS5-26555/NAS5-03127	Science	-	17,698
SRI International	43.001	PO36825	Science	-	108,574
Universities Space Research Association	43.001	NNA17BF53C	Science	-	57,326
University of California Irvine	43.001	80NSSC17K0698	Science	-	49,508
University of California Los Angeles	43.001	80NSSC20K1340	Science	-	70,017
University of Maryland	43.001	80NSSC21K0967	Science	-	25,863
University of North Carolina	43.001	80NSSC18M0099	Science	-	39,673
University of Toledo	43.001	80NSSC19K0591	Science	-	35,816
Woods Hole Oceanographic Institution	43.001	23114202	Science	-	37,053
Science Total				<u>531,328</u>	<u>5,208,414</u>

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

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

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University of Tennessee	47.074	1814520	Biological Sciences	-	96,798
Washington University	47.074	1947609	Biological Sciences	-	118,562
Biological Sciences Total				<u>132,480</u>	<u>6,063,537</u>
National Science Foundation	47.075	Direct	Social, Behavioral, and Economic Sciences	212,455	2,533,659
Harvard University	47.075	2051196	Social, Behavioral, and Economic Sciences	-	30,600
Syracuse University	47.075	1917908	Social, Behavioral, and Economic Sciences	-	59,832
University of California Irvine	47.075	2147011	Social, Behavioral, and Economic Sciences	-	21,984
University of Central Florida	47.075	16206076	Social, Behavioral, and Economic Sciences	-	65,359
University of Minnesota	47.075	PO# A005162201	Social, Behavioral, and Economic Sciences	-	8,729
Williams College	47.075	2020-NSF1947464-UMASS	Social, Behavioral, and Economic Sciences	-	22,539
Woods Hole Oceanographic Institution	47.075	A101459	Social, Behavioral, and Economic Sciences	-	17,812
Social, Behavioral, and Economic Sciences Total				<u>212,455</u>	<u>2,760,514</u>
National Science Foundation	47.076	Direct	Education and Human Resources	828,615	7,216,230
American Chemical Society	47.076	1806607	Education and Human Resources	-	12,957
City College of New York	47.076	1723209	Education and Human Resources	-	8,268
Council for Opportunity In Education	47.076	1759163	Education and Human Resources	-	2,949
Council for Opportunity In Education	47.076	1759163-4	Education and Human Resources	-	57,616
Education Development Center, Inc.	47.076	2050641	Education and Human Resources	-	46,095
Embry Riddle Aeronautical University Inc	47.076	1956193	Education and Human Resources	-	47,473
John Carroll University	47.076	2128203	Education and Human Resources	-	1,134
MA Department of Higher Education	47.076	ISARGT70661575UMS19A	Education and Human Resources	-	21,433
Northern Arizona University	47.076	1856384	Education and Human Resources	-	54,321
Springfield Technical Community College	47.076	1801090	Education and Human Resources	-	37,740
State University of N.Y. Cortland	47.076	1747527	Education and Human Resources	-	27,962
Tufts University	47.076	103512-00001	Education and Human Resources	-	10,988
Tufts University	47.076	DRL1657218	Education and Human Resources	-	33,829
University of California San Diego	47.076	DUE-1821521	Education and Human Resources	-	16,946
University of Central Florida	47.076	16406266	Education and Human Resources	-	22,177
University of Connecticut	47.076	116-0727	Education and Human Resources	-	59,200
University of Connecticut	47.076	148606934	Education and Human Resources	-	28,917
University of Connecticut	47.076	2110083	Education and Human Resources	-	24,058
University of Connecticut	47.076	PR: 1619629 / SB: 135339	Education and Human Resources	-	12,386
University of Florida	47.076	2128479	Education and Human Resources	-	14,188
University of Nebraska	47.076	1904102	Education and Human Resources	-	4,848
University of Southern California	47.076	109190808	Education and Human Resources	-	131,442
Worcester Polytechnic Institute	47.076	10593-GR	Education and Human Resources	-	28,342
Worcester Polytechnic Institute	47.076	10828-GR	Education and Human Resources	-	2,136
Education and Human Resources Total				<u>828,615</u>	<u>7,923,735</u>
National Science Foundation	47.078	Direct	Polar Programs	1,405	285,354
National Science Foundation	47.079	Direct	Office of International Science and Engineering	-	57,838
Johns Hopkins University	47.079	2005191988	Office of International Science and Engineering	-	42,219
Office of International Science and Engineering Total				<u>-</u>	<u>100,057</u>
National Science Foundation	47.083	Direct	Office of International Science and Engineering	-	880,297
Columbia University	47.083	2040613	Office of International Science and Engineering	-	125,248
Rutgers University	47.083	2069	Office of International Science and Engineering	-	64,228
Office of International Science and Engineering Total				<u>-</u>	<u>1,069,773</u>
Association of Public & Land-Grant Univ	47.U01	115-0977	National Science Foundation Contracts	-	108,705
Meedan	47.U02	49100421C0035	National Science Foundation Contracts	-	105,626
National Science Foundation Total				<u>2,644,289</u>	<u>54,378,873</u>
Nuclear Regulatory Commission					
U.S. Nuclear Regulatory Commission	77.008	Direct	U.S. Nuclear Regulatory Commission Scholarship and Fellowship Program	-	201,474
Nuclear Regulatory Commission Total				<u>-</u>	<u>201,474</u>
Small Business Administration					
Small Business Administration	59.037	Direct	Small Business Development Centers	796,101	1,874,114
Small Business Administration	59.075	Direct/SBAHQ21SV002424-2	COVID-19 Sheltered Venue Operators Grant Program	-	498,862
Small Business Administration Total				<u>796,101</u>	<u>2,372,976</u>

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

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

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Highway Planning and Construction Cluster					
Commonwealth of Massachusetts	20.205	INTF00X02021A0113774	Highway Planning and Construction	-	93,967
MA Department of Transportation	20.205	114775	Highway Planning and Construction	-	93,615
MA Department of Transportation	20.205	693J22140000Z49EMA00JT021 016304-00002	Highway Planning and Construction	-	67,581
MA Department of Transportation	20.205	Award 35032	Highway Planning and Construction	-	37,580
MA Department of Transportation	20.205	INTF00X020A0110354	Highway Planning and Construction	-	35,318
MA Department of Transportation	20.205	INTF00X02015A0081923	Highway Planning and Construction	-	115,499
MA Department of Transportation	20.205	INTF00X02019A00107678	Highway Planning and Construction	-	6,749
MA Department of Transportation	20.205	INTF00X02019A0106343	Highway Planning and Construction	-	3,006
MA Department of Transportation	20.205	INTF00X02020A0110352 15477-00002	Highway Planning and Construction	-	10,950
MA Department of Transportation	20.205	INTF00X02020A0110353	Highway Planning and Construction	-	(34)
MA Department of Transportation	20.205	INTF00X02020A0110439	Highway Planning and Construction	-	9,274
MA Department of Transportation	20.205	INTF00X02020A011053	Highway Planning and Construction	-	16,464
MA Department of Transportation	20.205	INTF00X02020A0114069	Highway Planning and Construction	-	30,148
MA Department of Transportation	20.205	INTF00X02021A00114201	Highway Planning and Construction	-	122,321
MA Department of Transportation	20.205	INTF00X02021A0113772	Highway Planning and Construction	6,484	46,943
MA Department of Transportation	20.205	INTF00X02021A0113773	Highway Planning and Construction	-	89,428
MA Department of Transportation	20.205	INTF00X02021A0113776	Highway Planning and Construction	-	49,576
MA Department of Transportation	20.205	INTF00X02021A0114071	Highway Planning and Construction	-	80,214
MA Department of Transportation	20.205	INTF00X02021A0114217	Highway Planning and Construction	-	66,746
MA Department of Transportation	20.205	INTF00X02022114557	Highway Planning and Construction	-	66,355
MA Department of Transportation	20.205	INTF00X02022H0115287	Highway Planning and Construction	23,902	32,969
MA Department of Transportation	20.205	INTF00X0202A0110556	Highway Planning and Construction	-	116,948
MA Department of Transportation	20.205	INTF00X02 18A91905	Highway Planning and Construction	-	77
MA Department of Transportation	20.205	INTF00X02020H0109131	Highway Planning and Construction	1,929	83,811
MA Department of Transportation	20.205	PARS# X2OSPR2R09	Highway Planning and Construction	-	40,453
MA Department of Transportation	20.205	SPR-SPR-A-018-X00	Highway Planning and Construction	-	359,115
Highway Planning and Construction Total				<u>32,315</u>	<u>1,675,073</u>
Highway Planning and Construction Cluster Total				<u>32,315</u>	<u>1,675,073</u>
Highway Safety Cluster					
MA Dept of State Police	20.616	ISAPQLFY22CRPTUMS22A 016618-00002	National Priority Safety Programs	-	22,578
MA Dept of State Police	20.616	015953-00002	National Priority Safety Programs	-	43,139
MA Exec of C of Public Safety & Security	20.616	CTEPSFFY21UMASEMANU 015839-00002	National Priority Safety Programs	-	76,497
MA Exec of C of Public Safety & Security	20.616	CTEPSFFY21UMASSBSUR	National Priority Safety Programs	-	64,454
MA Exec of C of Public Safety & Security	20.616	CTEPSFFY22UMASSBSUR	National Priority Safety Programs	-	74,018
National Priority Safety Programs Total				-	280,886
Highway Safety Cluster Total				-	280,886
Department of Transportation Total				<u>32,315</u>	<u>2,191,574</u>
Other Programs					
Agency for International Development					
U.S. Agency International Development	98.001	Direct	USAID foreign Assistance for Programs Overseas	-	446
FHI 360	98.001	P021000690	USAID foreign Assistance for Programs Overseas	96,221	321,332
USAID foreign Assistance for Programs Overseas Total				<u>96,221</u>	<u>321,778</u>
Agency for International Development Total				<u>96,221</u>	<u>321,778</u>
Department of Agriculture					
U.S. Department of Agriculture	10.500	Direct	Cooperative Extension Service	-	5,447
NATL Institute of Food and Agriculture	10.511	Direct	Smith-Lever Funding (Various Programs)	23,875	1,661,520
U.S. Department of Agriculture	10.511	Direct	Smith-Lever Funding (Various Programs)	-	94,955
Smith-Lever Funding (Various Programs) Total				<u>23,875</u>	<u>1,756,475</u>
NATL Institute of Food and Agriculture	10.514	Direct	Expanded Food and Nutrition Education Program	-	854,578
NATL Institute of Food and Agriculture	10.515	Direct	Renewable Resources Extension Act and National Focus Fund Projects	-	22,508
U.S. Department of Agriculture	10.U07	FY21 MA AG USDA	Department of Agriculture Contracts	-	13,321
U.S. Department of Agriculture	10.U08	FY22 MA AG	Miscellaneous Department of Agriculture	-	34,472
Department of Agriculture Total				<u>23,875</u>	<u>2,686,801</u>
Department of Commerce					
NE Reg Assoc of Coastal Ocean Observ Sys	11.012	N21A013014/N21A013015	Integrated Ocean Observing System (IOOS)	-	5,083
Department of Commerce Total				-	<u>5,083</u>

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Department of Defense					
U.S. Department of Defense	12.617	Direct	Economic Adjustment Assistance for State Governments	-	783,497
National Security Agency	12.900	Direct	Language Grant Program	-	4,201
National Security Agency	12.903	Direct	GenCyber Grants Program	-	143,747
Department of Defense Total				<u>-</u>	<u>931,445</u>
Department of Education					
MA Dept of Elementary & Secondary ED	84.002	119-1521	Adult Education - Basic Grants to States	-	475,720
MA Dept of Elementary & Secondary ED	84.002	359-377576-2021-1255	Adult Education - Basic Grants to States	-	1,456
MassHire Brockton Workforce Board	84.002	MHGBWB ACLS FY21	Adult Education - Basic Grants to States	-	383
Adult Education - Basic Grants to States Total				<u>-</u>	<u>477,559</u>
U.S. Department of Education	84.031	Direct	Higher Education-Institutional Aid	-	47,087
U.S. Department of Education	84.031L	Direct	Higher Education Institutional Aid: Asian American and Native American Pacific Islander-Serving Institutions Program	-	356,453
Special Olympics, Inc.	84.128	00000003251	Rehabilitation Services-Service Projects	-	414,905
U.S. Department of Education	84.129B	Direct	Rehabilitation Long-Term Training	-	220,467
U.S. Department of Education	84.129H	Direct	Rehabilitation Long-Term Training	-	193,177
U.S. Department of Education	84.129P	Direct	Rehabilitation Long-Term Training	-	174,068
U.S. Department of Education	84.263C	Direct	Rehabilitation Training - Experimental and Innovative Training	-	993,627
U.S. Department of Education	84.264	Direct	Rehabilitation Training Technical Assistance Centers	-	1
San Diego State University	84.264J	SA0000764	Rehabilitation Training-Continuing Education	-	78,480
University of Washington	84.326	H264A080003	Special Education-Technical Assistance and Dissemination to Improve Services and Results for Children with Disabilities	-	(1)
U.S. Department of Education	84.327S	Direct	Special Education-Technology and Media Services for Individuals with Disabilities	149,991	454,787
Special Olympics, Inc.	84.380W	Project Unify Year 14	Direct Appropriation: Special Olympics (Annual)	-	282,935
U.S. Department of Education	84.382B	Direct	Strengthening Minority-Serving Institutions	-	210,110
U.S. Department of Education	84.407B	Direct	Coordinating Center for Transition and Postsecondary Programs for Students with Intellectual Disabilities	-	1,724,510
Maine Department of Labor	84.421	PO# CT12A 20170221000000002436	Disability Innovation Fund (DIF)	-	48,601
MA Rehabilitation Commission	84.421C	MRCNXTGENCAUMS22A	Pathways To Careers Using Partnerships, Apprenticeships and Equity	-	94,489
Nebraska Department of Education	84.421C	42231	Pathways To Careers Using Partnerships, Apprenticeships and Equity	-	184,684
VA Dept Aging Rehabilitative Services	84.421C	A262-100309	Pathways To Careers Using Partnerships, Apprenticeships and Equity	-	38,259
Pathways To Careers Using Partnerships, Apprenticeships and Equity Total				<u>-</u>	<u>317,432</u>
MA Dept of Elementary & Secondary Ed	84.424	CTDOE2183UMASSDONAHUEARPE	Student Support and Academic Enrichment Program	-	180,848
U.S. Department of Education	84.425F	Direct	COVID-19 CARES Act HEERF Institutional Portion	-	11,367,600
U.S. Department of Education	84.425E	Direct	COVID-19 CARES Act HEERF Student Aid Portion	-	67,161,739
U.S. Department of Education	84.425	Direct	COVID-19 CARES Act HEERF MSI	-	135,650
U.S. Department of Education	84.425M	Direct	COVID-19 CARES Act HEERF SIP	-	139,743
U.S. Department of Education	84.425	Direct	COVID-19 CARES Act HEERF SA	-	496,248
Department of Education Total				<u>149,991</u>	<u>85,476,028</u>
Department of Health and Human Services					
U.S. Dept of Health and Human Services	93.048	Direct	Special Programs for the Aging-Title IV-and Title II-Discretionary Projects	-	269,489
MA Dept of Developmental Services	93.072	90LRLI0022-01-00	Lifespan Respite Care Program	-	252,006
MA Department of Mental Health	93.104	SCDMH8210180H6990	Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances (SED)	-	89,180
MA Department of Mental Health	93.104	SCDMH821022085310000	Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances (SED)	-	25,484
Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances (SED) Total				<u>-</u>	<u>114,664</u>
Boston Children's Hospital	93.110	GENFD0001850558	Maternal and Child Health Federal Consolidated Programs	-	43
Boston Children's Hospital	93.110	GENFD0002054589	Maternal and Child Health Federal Consolidated Programs	-	97,493
Maternal and Child Health Federal Consolidated Programs Total				<u>-</u>	<u>97,536</u>
Health Resources Service Administration	93.178	Direct	Nursing Workforce Diversity	55,187	210,922
Baystate Medical Center, Inc.	93.243	FED703-16273-P	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	12,452
Executive Office of The Trial Court	93.243	1 H79 TI080277	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	53,235
Executive Office of The Trial Court	93.243	H79T1080277	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	9,486

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

Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
Executive Office of The Trial Court	93.243	H79TI080277	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	20,519
Executive Office of The Trial Court	93.243	H79TI081069	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	72,052
Executive Office of The Trial Court	93.243	H79TI082942	Substance Abuse and Mental Health Services-Projects of Regional and National Significance	-	57,760
Substance Abuse and Mental Health Services-Projects of Regional and National Significance Total				-	225,504
MA Department of Public Health	93.283	INTF411H23SPRF61061	Centers for Disease Control and Prevention-Investigations and Technical Assistance	-	25,949
MA Department of Public Health	93.323	INTF5264HH2500224024	Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)	143,555	1,207,451
U.S. Dept of Health and Human Services	93.355	Direct	Public Health Informatics & Technology Workforce Development Program (The PHIT Workforce Development Program)	-	255,589
U.S. Dept of Health and Human Services	93.360	Direct	Biomedical Advanced Research and Development Authority (BARDA), Biodefense Medical Countermeasure Development	-	(11,459)
MA Department of Public Health	93.426	INTF4104HH2500224044	Improving the Health of Americans through Prevention and Management of Diabetes and Heart Disease and Stroke	-	(42,748)
Administration for Community Living	93.433	Direct	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	12,329	370,681
Administration for Community Living	93.464	Direct	ACL Assistive Technology	95,764	229,986
U.S. Dept of Health and Human Services	93.464	Direct	ACL Assistive Technology	164,616	188,633
ACL Assistive Technology Total				260,380	418,619
Boston Public Health Commission	93.495	FY22023682	COVID-19 Community Health Workers for Public Health Response and Resilient	-	23,183
Florida Development Disabilities Council	93.630	1052TRS21D	Developmental Disabilities Basic Support and Advocacy Grants	-	76,327
Florida Development Disabilities Council	93.630	1054EM21J	Developmental Disabilities Basic Support and Advocacy Grants	8,000	107,360
Florida Development Disabilities Council	93.630	2001FLCSD-01	Developmental Disabilities Basic Support and Advocacy Grants	16,409	45,765
Florida Development Disabilities Council	93.630	2001FLCSD-01	Developmental Disabilities Basic Support and Advocacy Grants	-	29,649
MA Developmental Disabilities Council	93.630	20.GR.1.4.1.A	Developmental Disabilities Basic Support and Advocacy Grants	-	922
MA Developmental Disabilities Council	93.630	20.GR.1.4.1.B	Developmental Disabilities Basic Support and Advocacy Grants	-	21,300
Texas Council Developmental Disabilities	93.630	20135	Developmental Disabilities Basic Support and Advocacy Grants	42,375	305,519
Developmental Disabilities Basic Support and Advocacy Grants Total				66,784	586,842
Administration for Community Living	93.631	Direct	Developmental Disabilities Projects of National Significance	178,574	896,298
U.S. Dept of Health and Human Services	93.631	Direct	Developmental Disabilities Projects of National Significance	-	45,013
Community Transportation Assn of America	93.631	387171-UMB-01 / 90DNTC0001	Developmental Disabilities Projects of National Significance	-	89,486
Community Transportation Assn of America	93.631	CTAA/ACL 90DNTC0001-01	Developmental Disabilities Projects of National Significance	-	20,659
MA Dept of Developmental Services	93.631	17UMSICIGRANTEMPLY1	Developmental Disabilities Projects of National Significance	-	28,166
Developmental Disabilities Projects of National Significance Total				178,574	1,079,622
Administration for Community Living	93.632	Direct	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	-	64,737
Boston Children's Hospital	93.632	GENFD0001858509	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	5,000	5,290
Boston Children's Hospital	93.632	PO#GENFD0002025166	COVID-19 University Centers for Excellence in Developmental Disabilities Education, Research, and Service	-	34,710
Boston Children's Hospital	93.632	PO#GENFD0002047708	University Centers for Excellence in Developmental Disabilities Education, Research, and Service	7,500	387,617
University Centers for Excellence in Developmental Disabilities Education, Research, and Service Total				12,500	492,354
Tufts University	93.732	DHS002	Mental and Behavioral Health Education and Training Grants	-	13,093
MA Department of Public Health	93.994	INTF3054M03182122021	Maternal and Child Health Services Block Grant to the States	-	28,870
City of Worcester	93.140	33-1406W	Department of Health and Human Services Contracts	-	63,147
Department of Health and Human Services Total				729,309	5,681,314
Department of Homeland Security					
Massachusetts Emergency Management Agency	97.036	FEMA-4097-MA	Disaster Grants - Public Assistance (Presidentially Declared Disasters)	-	1,969,638
MA Exec of Public Safety & Security	97.067	UMASSFUAS118CSEF2018	Homeland Security Grant Program	-	30,232
Department of Homeland Security Total				-	1,999,870

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

Federal Grantor/Federal Subdivision or Pass -Through Grantor Cluster Title	Federal AL number	Federal Agency or Pass-Through Number	Program Title	Through to Subrecipients	Total Expenditures
Department of Housing and Urban Development					
MassHire Brockton Workforce Board	14.881	FY 20 MHGBWB DHCD	Moving to Work Demonstration Program	-	(1,735)
MassHire Brockton Workforce Board	14.881	MHGBWB DHCD FY20-21	Moving to Work Demonstration Program	-	36,438
Moving to Work Demonstration Program Total				-	34,703
Department of Housing and Urban Development Total				-	34,703
Department of Justice					
Michigan State University	16.550	RC109112	State Justice Statistics Program for Statistical Analysis Centers	-	12,703
National Institute of Justice	16.560	Direct	National Institute of Justice Research, Evaluation, and Development Project Grants	35,528	162,029
Harvard School of Public Health	16.560	2016-ZA-BX-K001	National Institute of Justice Research, Evaluation, and Development Project Grants	-	1,082
National Institute of Justice Research, Evaluation, and Development Project Grants Total				35,528	163,111
MA Office for Victim Assistance	16.575	FY2021-22VOCAVWA	Crime Victim Assistance	-	431,229
City of Worcester	16.582	Contract dated 3/10/2021	Crime Victim Assistance/Discretionary Grants	-	31,825
MA Dept of Public Health, BSAS	16.585	INTF2400H78500224472	Drug Court Discretionary Grant Program	-	178,924
Executive Office of The Trial Court	16.812	BJA-2016-9197	Second Chance Act Reentry Initiative	-	4,079
Department of Justice Total				35,528	821,871
Department of Labor					
MassHire Brockton Workforce Board	17.225	10SCC10	Unemployment Insurance	-	3,048
MassHire Brockton Workforce Board	17.225	CY 21 MHGBWB RESEA	Unemployment Insurance	-	371,240
Unemployment Insurance Total				-	374,288
MassHire Brockton Workforce Board	17.245	1027	Trade Adjustment Assistance	-	6,791
MassHire Brockton Workforce Board	17.245	10SCC10	Trade Adjustment Assistance	-	25,598
MassHire Brockton Workforce Board	17.245	10SSC10	Trade Adjustment Assistance	-	(3)
Trade Adjustment Assistance Total				-	32,386
MassHire Brockton Workforce Board	17.277	BAWIB NDWG; Garber	WIOA National Dislocated Worker Grants / WIA National Emergency Grants	-	(2,928)
MassHire Brockton Workforce Board	17.277	COVID-19 NDWG-004	WIOA National Dislocated Worker Grants / WIA National Emergency Grants	-	22,826
WIOA National Dislocated Worker Grants / WIA National Emergency Grants Total				-	19,898
Jobs for the Future, Inc.	17.285	21-297	Apprenticeship USA Grants	-	37,754
Department of Labor Total				-	464,326
Department of State					
U.S. Department of State	19.009	Direct	Academic Exchange Programs - Undergraduate Programs	-	552,840
International Research and Exchanges Board	19.009	FY22-YALI-AEI-UMA-01	Academic Exchange Programs - Undergraduate Programs	-	21,276
Meridian International Center	19.009	A82-03	Academic Exchange Programs - Undergraduate Programs	-	80,955
Academic Exchange Programs - Undergraduate Programs Total				-	655,071
U.S. Department of State	19.040	Direct	Public Diplomacy Programs	-	51,658
U.S. Department of State	19.400	Direct	Academic Exchange Programs - Graduate Students	37,980	134,817
Fulbright Commission Argentina	19.402	Direct	Professional and Cultural Exchange Programs - International Visitor Leadership Program	-	56,440
International Research and Exchanges Board	19.408	FY22-FTEA-UML-01	Academic Exchange Programs - Teachers	-	298,991
Assoc of Univ Centers On Disabilities	19.415	32-17-8152	Professional and Cultural Exchange Programs - Citizen Exchanges	-	(1,527)
U.S. Department of State	19.501	Direct	Public Diplomacy Programs for Afghanistan and Pakistan	-	72,549
Department of State Total				37,980	1,267,999
Department of the Interior					
U.S. Department of Interior	15.954	Direct	National Park Service Conservation, Protection, Outreach, and Education	-	192,276
Department of the Interior Total				-	192,276
National Archives and Records Administration					
National Historical Publications & Records	89.003	Direct	National Historical Publications and Records Grants	-	10,212
National Archives and Records Administration Total				-	10,212
National Endowment for the Arts					
National Endowment for The Arts	45.024	Direct	Promotion of the Arts-Grants to Organizations and Individuals	-	21,432
National Endowment for the Arts Total				-	21,432

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

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

THE UNIVERSITY OF MASSACHUSETTS

Notes to the Schedule of Expenditures of Federal Awards

June 30, 2022

(1) Basis of Presentation

The accompanying schedule of expenditures of federal awards (the Schedule) includes the federal award activity of the University of Massachusetts (the University) under programs of the federal government for the year ended June 30, 2022, with the exception of the University of Massachusetts Global (UMG), which issues a separate audit report in accordance with Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance). Federal award activity, if any, of UMG, the University of Massachusetts Amherst Foundation, the Worcester City Campus Corporation, the University of Massachusetts Foundation, Inc. and the University of Massachusetts Dartmouth Foundation, Inc., are not included. The information in the Schedule is presented in accordance with the requirements of Uniform Guidance. Because the Schedule presents only a selected portion of the operations of the University, it is not intended to and does not present the net position, changes in net position, or cash flows of the University.

(2) Summary of Significant Accounting Policies

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

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

(3) Federal Student Financial Assistance

(a) Student Loan Programs

The Perkins Loans, Primary Care Loans, Loans for Disadvantaged Students, Nurse Faculty Loan Program and the Nursing Student Loans are administered directly by the University and balances and transactions are included in the University's financial statements. Loan activities and balances consist of the following:

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

THE UNIVERSITY OF MASSACHUSETTS

Notes to the Schedule of Expenditures of Federal Awards

June 30, 2022

(b) Federal Direct Student Loans

The University is responsible only for the performance of certain administrative duties relating to Federal Direct Student Loans and, accordingly, these loans are not included in the University's financial statements. Federally guaranteed loans distributed to students of the University through the Federal Direct Student Loans Program during the year ended June 30, 2022 are summarized as follows:

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



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

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

Board of Trustees of the
University of Massachusetts:

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities and the aggregate discretely presented component units of the University of Massachusetts (the University), as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the University's basic financial statements, and have issued our report thereon dated December 15, 2022. Our report contains an emphasis of matter paragraph referring to the University's adoption, in 2022, of Governmental Accounting Standards Board (GASB) Statement No. 87, *Leases*. The financial statements of the University of Massachusetts Foundation Inc. (the Foundation) were not audited in accordance with *Government Auditing Standards*, and accordingly, this report does not include reporting on internal control over financial reporting or instances of reportable noncompliance associated with the Foundation.

Report on Internal Control Over Financial Reporting

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

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

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



Report on Compliance and Other Matters

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

Purpose of this Report

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

KPMG LLP

Boston, Massachusetts
December 15, 2022



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

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

Board of Trustees of the
University of Massachusetts

Report on Compliance for Each Major Federal Program

Opinion on Each Major Federal Program

We have audited the University of Massachusetts' (the University) compliance with the types of compliance requirements identified as subject to audit in the OMB Compliance Supplement that could have a direct and material effect on each of the University's major federal programs for the year ended June 30, 2022. The University's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

In our opinion, the University complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2022.

Basis for Opinion on Each Major Federal Program

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

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

Other Matter – Federal Expenditures Not Included in the Compliance Audit

The University's financial statements include the operations of the University of Massachusetts Global (UMG), which expended federal awards which is not included in the University's schedule of expenditures of federal awards during the year ended June 30, 2022. Our compliance audit, described in the Opinion on Each Major Federal Program section of our report does not include the operations of UMG because UMG separately engaged auditors to perform an audit of compliance.

Responsibilities of Management for Compliance

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



Auditors' Responsibilities for the Audit of Compliance

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

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

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

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

Other Matters

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

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

Report on Internal Control Over Compliance

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



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

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance. We consider the deficiency in internal control over compliance described in the accompanying schedule of findings and questioned costs as item 2022-001 to be a significant deficiency.

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

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

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

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

We have audited the business-type activities and aggregate discreetly presented component units of the University as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collective comprise the University's basic financials statements. We have issued our report thereon dated December 15, 2022, which contained unmodified opinions on those financial statements. Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the basic financial statements. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the schedule of expenditures of federal awards is fairly stated in all material respects in relation to the basic financial statements as a whole.

KPMG LLP

Boston, Massachusetts
December 23, 2022

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

(1) Summary of Auditors' Results

- (a) Type of report issued on whether the financial statements were prepared in accordance with generally accepted accounting principles: **Unmodified**
- (b) Internal control deficiencies over financial reporting disclosed by the audit of the financial statements:
 - Material weaknesses: **No**
 - Significant deficiencies: **None reported**
- (c) Noncompliance material to the financial statements: **No**
- (d) Internal control deficiencies over major programs disclosed by the audit:
 - Material weaknesses: **No**
 - Significant deficiencies: **Yes, 2022-001**
- (e) Type of report issued on compliance for major programs: **Unmodified**
- (f) Audit findings that are required to be reported in accordance with 2 CFR 200.516(a): **Yes, 2022-001**
- (g) Major programs:
 - AL Numbers 84.007, 84.033, 84.038, 84.063, 84.268, 84.379, 93.264, 93.342, 93.364 – Student Financial Assistance cluster
 - AL Numbers 84.425E, 84.425F, 84.425M – COVID-19 - Education Stabilization Fund (HEERF)
 - AL Number 10.561 – Supplemental Nutrition Assistance Program (SNAP)
- (h) Dollar threshold used to distinguish between Type A and Type B programs: **\$3,071,491**
- (i) Auditee qualified as a low-risk auditee: **Yes**

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

None

(3) Findings and Questioned Costs Relating to Federal Awards

Finding 2022-001: Loan Disbursement Notifications

Federal Agency

U.S. Department of Education

Federal Program

Student Financial Assistance Cluster (AL Number 84.268)

Federal Award Year

July 1, 2021 through June 30, 2022

UNIVERSITY OF MASSACHUSETTS

Schedule of Findings and Questioned Questions

June 30, 2022

Criteria

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

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

Condition

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

Cause and Effect

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

Questioned Costs

None identified.

Sampling

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

Repeat Finding in the Prior Year

No.

Recommendation

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

Views of Responsible Officials

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



University of Massachusetts

Administration & Finance Office of the President

Management's Views and Corrective Action Plan 2022-001 – Loan Disbursement Notifications

Award Information

Cluster: Student Financial Assistance

Grantor: Department of Education

Award Name: Federal Direct Student Loans

Award Year: July 1, 2021 – June 30, 2022

AL Number: 84.268

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

For further details regarding the corrective action plan, contact the Assistant Vice President and University Controller, Patrick Hitchcock, at phitchcock@umassp.edu.

Appendix D: Credit Ratings

D-1. Moody's Rating Report – March 2022

D-2. S&P Rating Report – March 2022

D-3. Fitch Rating Report – March 2022



Appendix D-1: Moody's Rating Report – March 2022

CREDIT OPINION

1 March 2022


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Japan 81-3-5408-4100

EMEA 44-20-7772-5454

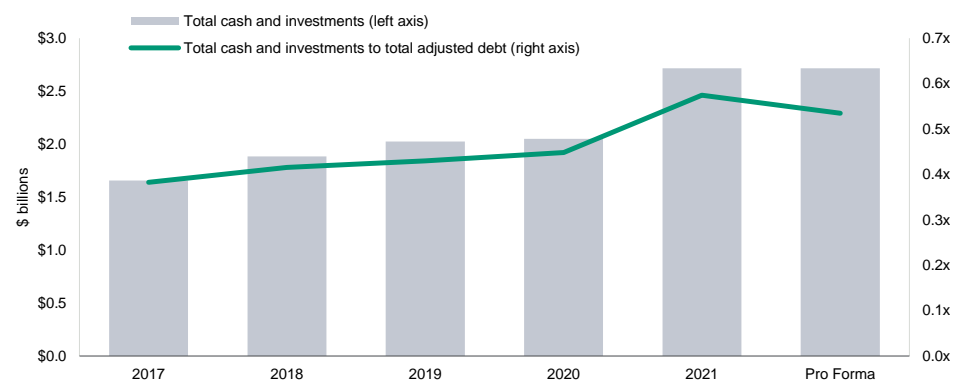
University of Massachusetts

Update to credit analysis

Summary

[University of Massachusetts](#)' (Aa2 stable issuer rating) 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), and significant research activity. Excellent financial policy and strategy incorporates solid operating performance, while navigating adverse financial impacts arising from the coronavirus pandemic. Tempering UMass' strengths are weaker total cash and investments to operations and total adjusted debt relative to peers, with continued capital needs and monitoring of two public-private partnerships. The fiscal 2022 partnership with the former Brandman University, now UMass Global, adds uncertainties around execution and financial risks. 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

Strong growth in wealth supports planned increase in fiscal 2022 debt


Pro Forma reflects fiscal 2021 debt with new money of approximately \$352 million during fiscal 2022.

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 64,785 full-time equivalent (FTE) students
- » Solid, consistent operating and capital support from Aa1-rated Massachusetts
- » Strong fiscal discipline and oversight leading to good EBIDA margins and over 2x debt service coverage for fiscal 2021, with similar results projected in fiscal 2022
- » Excellent and growing research enterprise with \$552 million of research expenses in fiscal 2021

Credit challenges

- » Highly leveraged relative to wealth and operating revenue, with ongoing capital needs
- » Modest donor support relative to Aa2-rated institutions
- » Collective bargaining agreements and union contracts constrain expense flexibility
- » Highly competitive student demand and research funding environments

Rating outlook

The stable outlook reflects our expectation of continuing steady enrollment and positive operating performance, continued solid state support, and measured use of 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 2x
- » Inability to sustain 0.4x coverage of total adjusted debt from total cash and investments
- » Material 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	2017	2018	2019	2020	2021	Pro Forma	Median: Aa Rated Public Universities
Total Fall FTE Enrollment	64,530	65,347	66,003	66,070	64,785	64,785	4,947
Operating Revenue (\$Billion)	3.3	3.4	3.4	3.4	3.4	3.4	0.2
Annual Change in Operating Revenue (%)	2.2	2.3	0.7	0.5	-1.4	-1.4	-0.9
Total Cash & Investments (\$Billion)	1.7	1.9	2.0	2.0	2.7	2.7	0.4
Total Debt (\$Billion)	3.1	3.1	3.1	3.0	3.0	3.4	0.2
Total Cash & Investments to Total Adjusted Debt (x)	0.4	0.4	0.4	0.4	0.6	0.5	2.7
Total Cash & Investments to Operating Expenses (x)	0.5	0.6	0.6	0.6	0.8	0.8	2.0
Monthly Days Cash on Hand (x)	119	139	135	123	172	172	382
EBIDA Margin (%)	14.0	13.5	14.0	13.1	13.7	13.7	14.4
Total Debt to EBIDA (x)	6.7	6.7	6.6	6.7	6.5	7.3	4.9
Annual Debt Service Coverage (x)	2.2	2.1	2.2	2.0	2.2	2.2	2.8

Pro Forma reflects fiscal 2021 leverage with new money of approximately \$352 million during fiscal 2022.

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 2021 operating revenue was \$3.4 billion and fall 2021 enrollment was 64,785 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; new online entity for fiscal 2022

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. However, fall 2021 enrollment of 64,785 FTE systemwide was down about 2%, with some variations among the campuses. Very good brand and strategic positioning incorporates softer net tuition revenue growth and some enrollment challenges due to demographic trends and the ongoing effects of the coronavirus pandemic. All campuses moved to in-person learning formats for fall 2021.

The university's initiative for increasing its online capacity and presence will grow with its September 2021 partnership with Brandman University, a California-based nonprofit online provider that was a component of [Chapman University](#). The entity, renamed UMass Global, will be a blended unit of the university, and provides online educational services to approximately 20,000 students, including a range of adult learners. The ultimate credit impact will depend on the successful integration of the entities, which will occur over time.

University of Massachusetts maintains a sizable and growing research profile, which enhances its reputation and revenue diversity. Research activity, totaling \$552 million in fiscal 2021 or nearly 17% 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

UMass will continue to face challenges stemming from ongoing disruptions related to the coronavirus pandemic, as well as demographic constraints, but disciplined fiscal oversight will limit significant adverse impact to operating performance. Historically strong and consistent state operating appropriations, comprising 25% of fiscal 2021 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 2021 EBIDA margin was a sound 13.7% and provided 2.2x debt service coverage.

Wealth and liquidity: rising cash and investments, but lags peers

The system's financial reserve levels, while growing a significant 33% year-over-year in fiscal 2021, remain below peer levels when compared to both debt and operations. Donor-supported reserve growth is modest, with capital campaigns decentralized among the campuses. Cash and investments totaled \$2.7 billion for fiscal 2021 and covered operating expenses by 0.8x.

University and UMass Foundation assets are managed by the foundation's board, with oversight from a chief investment officer and assistance from a third party advisor. The combined endowment of \$1.2 billion at fiscal end June 30, 2021 was up 37% for the one year period. Assets allocation is in line with similarly sized endowments.

Liquidity

UMass' liquidity relative to operating expenses is modest relative to Aa2-rated peers, but generally improving based on its reserve policy, and sound given very limited calls on liquidity. Monthly liquidity of \$1.4 billion translated to 172 monthly days cash on hand for 2021, up from 120 days recorded for fiscal 2017. Liquidity access has been expanded with the fiscal 2021 establishment of a \$150 million revolving line of credit.

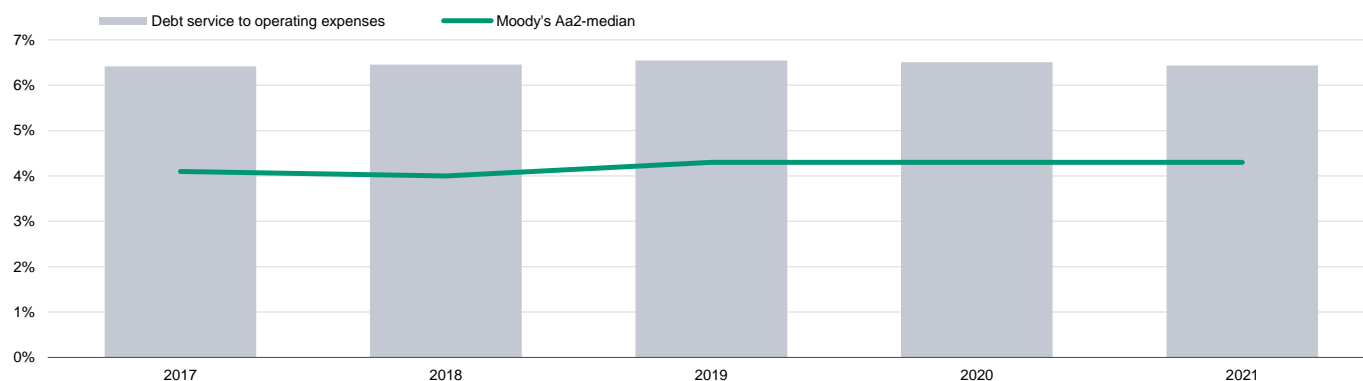
Leverage: elevated leverage and ongoing capital needs, but measured pace of debt issuance

The university's leverage is elevated relative to peers, but will remain manageable due to consistency of operating performance and prudent capital planning, acknowledging its excellent financial policy (see Exhibit 3). Fiscal 2021 total cash and investments covered total adjusted debt just 0.6x, declining to 0.5x on a pro forma debt basis.

Favorably, all of UMass' \$3 billion of direct debt at fiscal end 2021 is fixed rate and amortizing, aiding budget predictability. Other debtlike liabilities totaling \$1.7 billion include the unfunded pension liability (see Pensions and OPEB below), operating leases, and alternative financing arrangements representing two developer owned student housing projects. Total adjusted debt was \$4.7 billion for fiscal 2021, and rises to \$5.1 billion including UMass' planned new money Series 2022 financing.

Exhibit 3

UMass debt service policy to remain below 7% of expenses is a mitigant to higher comparative debt burden



Source: Moody's Investors Service

The university's capital plan through fiscal year 2026 includes 100 projects with a total funding need of \$2 billion. To date 26% of the plan has been addressed. Nearly half of the funding is debt, with the remaining sourced from gifts, cash flow and state support. Favorably, the state has been an important capital funding partner, providing \$328 million in capital appropriations over the fiscal 2017-21 period. Beyond the university's planned Series 2022 bonds, the university plans on issuing about \$240 million of debt over the fiscal 2024-26 period.

The university has agreements with third party developers to operate student housing projects, which due to the nature of the projects on campus land, serving university constituents and eventually returning to the university, Moody's includes as alternative financing arrangements. Outstanding debt associated with these projects at the [UMass-Boston](#) and [UMass-Dartmouth](#) campuses, 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. Planning for a third PPP for housing at the Amherst campus has received Board approval. The campus along with the University of Massachusetts Building Authority (UMBA) is working with a third party to finalize the transaction.

The UMass-Boston and UMass-Dartmouth projects were open for fall 2021 and spring 2022 enrollment with full occupancy at the Boston project, but less at the Dartmouth project. As a result of the COVID-19 pandemic, and the change from on-campus to remote learning during the 2020-21 academic year, occupancy at the Boston project was significantly reduced. As a result, the UMass-Boston campus contributed \$457,000 to the facility through June 30, 2021. The Dartmouth project opened in the fall of 2020, while the campus was still closed and no contribution from the campus has been made to date.

Legal security

The bonds and commercial paper notes are special obligations of 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 to have available Spendable Cash and Investments (formerly Unrestricted Net Assets). Fiscal 2021 spendable cash and investments totaled \$2.2 billion relative to the fiscal 2021 certified amount of \$246 million and pro forma fiscal 2022 certified amount of \$246 million.

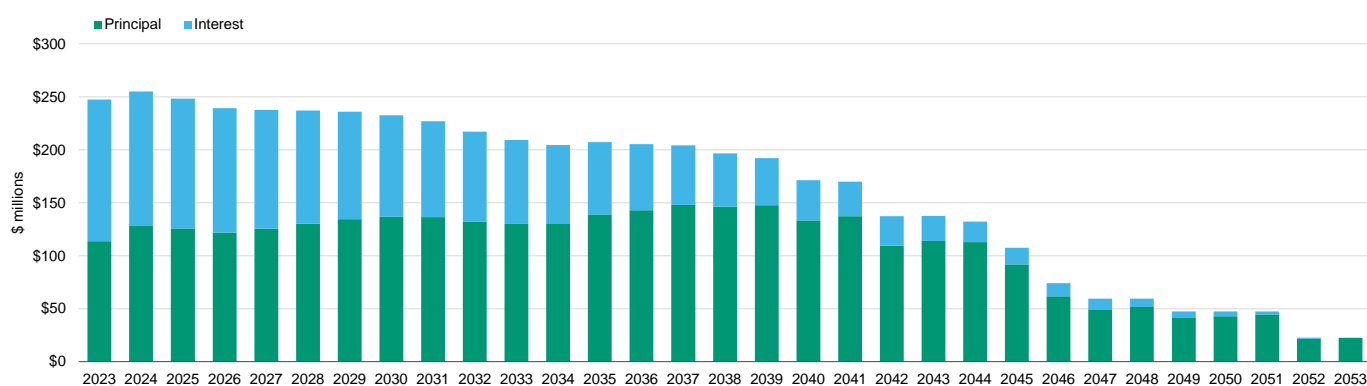
Debt structure

Favorably, debt is predominantly fixed rate with regular amortization (see Exhibit 4).

Exhibit 4

Amortizing debt provides budget predictability

Pro forma debt service including planned Series 2022 1-3 bonds



Source: Moody's Investors Service and University of Massachusetts Building Authority

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 [U.S. Bank National Association](#). 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 fiscal year end 2021, which rose to \$118 million as of January 2022. UMass plans to refund the majority of its outstanding CP with a planned Series 2022 bond issue.

Debt-related derivatives

None

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 1.4x operating revenue for fiscal year 2021, slightly less than the Aa2-rated public university median of 1.5x. Pension

contributions for those in the SERS plan are determined by the plan and made by the university. Fiscal 2021 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 \$830 million for fiscal 2021.

ESG considerations

Environmental

Environmental considerations are not a key credit driver. According to Moody's ESG Solutions, the university's campuses in multiple regions of Massachusetts have a range of medium and high exposure to water stress, extreme rainfall and hurricanes. 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, 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.

Governance

Excellent financial policy and strategy incorporates the university's essential role for the state's educational and research priorities, and associated excellent capital support, bolstered by strong fiscal autonomy and stability in core revenue streams. Active financial management reflects the system's strengthened internal controls, development of specific reserve requirements among the campuses and implementation a shared services structure that is adding 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 brand and strategic positioning, operating environment, and financial strategy on a qualitative basis, as described in the methodology.

Exhibit 5

University of Massachusetts, MA

Scorecard Factors and Sub-factors	Value	Score
Factor 1: Scale (15%)		
Adjusted Operating Revenue (USD Million)	3,362	Aaa
Factor 2: Market Profile (20%)		
Brand and Strategic Positioning	A	A
Operating Environment	Aa	Aa
Factor 3: Operating Performance (10%)		
EBIDA Margin	14%	A
Factor 4: Financial Resources and Liquidity (25%)		
Total Cash and Investments (USD Million)	2,716	Aaa
Total Cash and Investments to Operating Expenses	0.8	Aa
Factor 5: Leverage and coverage (20%)		
Total Cash and Investment to Total Adjusted Debt	0.5	A
Annual Debt Service Coverage	2.2	Aa
Factor 6: Financial Policy and Strategy (10%)		
Financial Policy and Strategy	Aa	Aa
Scorecard-Indicated Outcome		Aa3
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.

Leverage factors reflect new debt of approximately \$352 million during fiscal 2022.

Source: Moody's Investors Service

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CLIENT SERVICES

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Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Appendix D-2: S&P Rating Report – March 2022



RatingsDirect®

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

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- Enterprise Profile
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- Related Research

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

Credit Profile

US\$351.84 mil proj rev bnds (taxable) (University of Massachusetts) ser 2022-2 due 11/01/2052		
<i>Long Term Rating</i>	AA-/Stable	New
US\$235.615 mil proj rev bnds (taxable) (University of Massachusetts) ser 2022-3 due 11/01/2044		
<i>Long Term Rating</i>	AA-/Stable	New
US\$60.275 mil proj rev bnds (University of Massachusetts) ser 2022-1 due 11/01/2052		
<i>Long Term Rating</i>	AA-/Stable	New

Rating Action

S&P Global Ratings revised its outlook to stable from negative and affirmed its 'AA-' long-term rating and underlying rating (SPUR) on University of Massachusetts (UMass) revenue bonds issued by the University of Massachusetts Building Authority (UMBA) and other issuers. At the same time, S&P Global Ratings assigned its 'AA-' long-term rating to the UMBA's series 2022-1, 2022-2, and 2022-3 revenue bonds, issued for UMass.

The rating and outlook revision reflect our opinion of the UMass system's sustained enterprise profile as the state's flagship public higher education system with relatively stable student enrollment and demand characteristics and a recent increase in applications. The rating and outlook are further supported by breakeven to positive operating margins on a full accrual basis historically, which is in line with peers. While the balance sheet is weakened by this debt issuance and is light for the rating, there was some recent improvement given recent investment returns. In addition, management plans to examine and improve enrollment and operating performance and pay down principal of about \$240 million in the next two years as it plans for an additional \$238 million in debt in the next two to four years--so there may be capacity for the planned debt at the current rating.

The bonds are secured by all available funds of the system, payable to the authority under the contract for management and services. We consider this equivalent to a general obligation pledge of the university system. As of June 30, 2021, the system had debt outstanding (including notes, leases, and commercial paper [CP]) of approximately \$3.19 billion. Following this issuance, total pro forma debt will be approximately \$3.57 billion and the pro forma maximum annual debt service (MADS) burden will be 6.8% of fiscal 2021 adjusted operating expenses.

While all the system's debt is on parity, we rate only a portion.

The pro forma debt calculations include \$412 million in new debt with the remaining proceeds going toward refunding. The new money borrowing will go toward funding the New Educational Research Building at the Medical School (\$352 million), and \$60.3 million par toward tax exempt projects--to fund the North Village project at Amherst and fund building systems upgrades at the Science & Engineering Building at the Dartmouth campus. The proposed taxable

advanced refunding of the series 2013-2, 2014-1, 2015-1, and 2015-2 for savings.

The system is also engaged in a CP program, which is authorized for \$200 million. As of January 2022, there was \$117.7 million in outstanding balance on the program. The CP program is supported by a State Street Bank and Trust liquidity facility.

In addition, the system recently reached an agreement on a \$150 million line of credit for additional liquidity flexibility.

As a result of the COVID-19 outbreak, UMass transitioned to remote education in March 2020 and issued prorated refunds to students for room and board. Management estimated that the total negative budget impact of COVID-19 in fiscal 2020 was \$114.1 million. In fiscal year 2021, management identified a reduction in revenues driven by COVID of \$215 million. To offset these pressures, the university recognized federal and state stimulus funding equal to \$116.9 million in institutional and student aid in fiscal years 2020 (\$28.5 million) and 2021 (\$88.4 million). In addition, management made a concerted effort to reduce expenses during this time and ended fiscal 2020 and 2021 with a small full-accrual operating surplus, which we view favorably given the magnitude of the pandemic's effect. Management identified another \$78.6 million of federal stimulus available to support operations in fiscal 2022 or beyond. Management is projecting for a full accrual operating surplus in fiscal 2022 based on performance through the first quarter 2022. While margins will likely be compressed in the next one to three fiscal years, there are plans to improve the margin to 2% by fiscal 2025, which would remain in line with the rating.

Credit overview

We assessed the system's enterprise profile as very strong, characterized by growing enrollment despite the COVID-19 impact, 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 operating margins, solid 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 system's comprehensive nature, 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 with a surplus projected for fiscal 2022;
- Steady trend of enrollment growth based on headcount, though full-time equivalent (FTE) was down for fall 2021; and
- 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.

Partly offsetting the strengths, in our view, are 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 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 intention 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 T.H. Chan School of Medicine, Morningside Graduate School of Biomedical Sciences, and the Tan Chingfen 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 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. The integration has been ongoing and has not had a material impact on credit characteristics to date.

Environment, social, and governance

Vaccine progress in the U.S. has helped alleviate some of the health and safety social risks stemming from the pandemic; however, the higher education sector remains at greater risk from remaining uncertainties. We view the risks posed by COVID-19 to public health and safety as a social risk under our environment, social, and governance factors. Despite the elevated social risk, we believe the university's environmental and governance risks are in line with our view of the sector.

Stable Outlook

Downside scenario

We could consider a negative rating action if the system's enrollment and demand measures weaken, operating performance doesn't improve over time as expected, or if the additional debt strains the balance sheet such that metrics are weaker than historical levels.

Upside scenario

A higher rating is not likely given the low level of available resources. However, over time a higher rating would be predicated on significant improvement in available resources ratios, especially relative to debt, consistent healthy surplus levels, maintenance of the enterprise profile.

Credit Opinion

Enterprise Profile

Market position and demand

In our view, the system has moderate geographic diversity and is mostly regional. About 74% of all students hail from within the commonwealth. We consider the system's enrollment profile solid compared with that of peers, historical trends, and 'AA' medians. The system's incremental headcount growth both at the undergraduate and graduate levels is in line with prior projections, and management expects the growth to continue. However, FTEs declined in fall 2021 and management is exploring different trends in the region to determine strategies to maintain the university's position. The declines were experienced across multiple campuses--Boston, Dartmouth, and Lowell. Undergraduate enrollment growth continues to be a strategic priority, primarily at the Boston and Lowell campuses. In fall 2021, undergraduate FTEs represented about 76% of FTE students, which was consistent with the past five years, and less than 20% of undergraduates were from out of state--a cohort the system continues to focus on increasing. Amherst is the system's largest campus, with FTE of 29,802 students in fall 2021. Lowell is the next-largest campus, with a headcount of 14,318 in fall 2021. The smallest campus is the medical campus at Worcester, which had 1,246 students in fall 2021.

After a year where applications fell and likely first-year demand likely weakened due to the effects of COVID-19, applications grew for fall 2021 and reached 80,611, 4.3% growth over the previous year. Selectivity has weakened moderately in the last few years but remains consistent with the rating category. The matriculation rate has also modestly weakened for fall 2021 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 modest decline in transfer matriculants in fall 2021 despite an increase in transfer applications.

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 2021, incoming freshmen scores were 1132 to 1352, though the university was test-optional during the pandemic like other schools and has not yet made a decision regarding the testing requirement going forward. The retention rate (freshman-to-sophomore year) for fall 2021 was in line with the rating at 83%, with some variation across campuses. The six-year graduation rate has increased over the last five years and reached 71% compared with 66% a few years ago. The system's mission remains access and affordability. Management expects to maintain moderate tuition increases for the near future.

The system has a large and growing online program, which we believe adds overall revenue and program diversity. UMass announced the creation of a strategic partnership with Brandman University, a nonprofit that specializes in online education for military, veteran, and adult students. It will first appear in the consolidated fiscal 2022 results, and overall, we expect it to be neutral in the near term from a credit perspective but will likely strengthen the system's online offerings.

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.

Management

There were a number of chancellor changes across the system and a search underway for a chancellor at the UMass Lowell campus. We do not anticipate any other major leadership changes. The administration structure has a centralized office headed by a president, and each campus has a chancellor. 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 that board membership has been stable over the past year.

In light of the COVID-19 pandemic, the system continues to focus on 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 revenue to allow for 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 as well as its 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

Operating performance

The system has a long history of positive operating surpluses, though results were compressed and closer to breakeven in the last two fiscal 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. The adjusted operating results in the last two fiscal years reflect pressures from reduced fee and auxiliary revenues and other revenue and expense pressures related to COVID-19 and reduced FTE. In fiscal 2021, the Amherst campus posted the weakest performance with an estimated operating loss of about 1%. The results were supported by the federal and state COVID-19 funding. The fiscal 2022 budgets for and currently projects break-even or better operations following management's concerted efforts to reduce expenses. The fiscal 2022 projection shows weakened performance expected at the Lowell campus and the system's full fiscal year performance will benefit from remaining supplemental COVID-19 funds. In the next three years, management is targeting margins close to 2% and is focused on issues like enrollment to improve operating performance.

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's revenue is further diversified by its strong research presence, with \$667 million in total grants and contracts for fiscal 2021--an increase from the prior year. 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 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 increase research capacity at the system.

Appropriations have increased modestly in recent years and were flat in fiscal 2021 because of state budgetary pressures stemming from COVID-19. Management conservatively budgeted for a 10% reduction in state appropriations in fiscal 2021, although state funding remained level following the legislative session in December 2020. We view the history of strong funding from the state as positive from a credit standpoint and believe substantial support will continue.

Available resources

In our view, the system's available resources relative to operating expenses are relatively light for the rating category though improved from historical levels given the recent market returns (16.5% return in fiscal 2021) and asset growth. Available resources relative to pro forma debt is light and below category medians and peers--however, given the recent investment returns, this metric is fairly consistent with historical levels despite the additional debt. We view the system's liquidity as sufficient with \$319 million in investments that can be liquidated within one day as of June 30, 2021. We expect the system's financial resource ratios to remain steady or slightly weaker in the near term, with the expectation of continued, though modest, operating surpluses and plans for limited additional debt (\$115 million in fiscal 2024 and \$123 million in fiscal 2026) to support the capital plan.

The endowment, held by the foundation, had a market value of \$1.2 billion as of June 30, 2021. Management reports little change to asset allocation or liquidity in the near term. 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. Draws have been consistent with policy and we do not anticipate any extraordinary draws or changes to the policy.

Debt and contingent liquidity

UMass' debt burden remains elevated compared with that of similarly sized and comprehensive universities, and is higher than our medians for the rating category. Pro forma MADS is in 2024 and above average at almost 7% of fiscal 2021 adjusted operating expenses. The proposed advanced refundings allow for debt service savings and provides some capacity for the additional debt being issued. In addition, from the estimated pro forma debt service schedule, we understand that about \$242 million of principal will be amortized through fiscal 2024 providing some capacity for the remaining debt that we expect in the next two to four years.

In our opinion, the high debt and elevated MADS burden remain a challenge, particularly as the system handles the effects of the COVID-19 pandemic and enrollment challenges. We believe the system's additional capital plans will

continue to limit balance sheet growth. Nevertheless, we believe that overall debt will remain manageable at the rating because of university trustee policies that limit debt service to 10% of available revenue 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. Following the transaction in 2021, much of the variable rate debt was refunded and the remaining contingent debt risk outstanding is the commercial paper and series A (\$20 million). In fiscal 2013, the authority approved a CP program to help fund the system's capital plan. The program is authorized for \$200 million. In addition, the system has reached agreement on a \$150 million line of credit with Bank of America and State Street Bank serving as lenders. The line of credit will be for a period of one year, with an option to renew for additional one-year terms. Under the guidance of Section 2 of Chapter 75 of the Massachusetts General Laws, the system is allowed 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. The university's capital plan for fiscal years 2022 through 2026 includes 100 projects and totals about \$2 billion of projects. Funding sources include the debt discussed above (about \$1 billion total), \$210 million of state funding, with the remaining from other internal and external sources. Based on the capital plan, we expect debt to remain elevated compared with that of the system's peers and the rating medians.

The system built a 1,000-bed freshman housing facility on time and within budget, through a 501(c)(3) ownership structure on its Boston campus. In addition, UMass Dartmouth engaged into a 1,210-bed housing facility project through a 501(c)(3) ownership structure. The associated debt for the two projects was approximately \$260 million, which we consider contingent debt of the system but which is not included in the calculation of available resources to debt ratios.

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 in fiscal 2020 was approximately 62.5%, 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 plans to increase pension contributions by 8.9% per year to fully amortize the unfunded liability by 2036. UMass' contributions were at less than 2% of total adjusted operating expenses, which we consider manageable, for fiscal 2021.

University of Massachusetts, Enterprise And Financial Statistics

	--Fiscal year ended June 30--					Medians for 'AA' rated public colleges and universities
	2022	2021	2020	2019	2018	2020
Enrollment and demand						
Headcount	74,554	75,431	75,065	74,705	74,572	MNR
Full-time equivalent	64,785	66,070	66,010	65,346	64,530	38,513
Freshman acceptance rate (%)	72.7	69.6	67.3	66.7	64.8	68.9
Freshman matriculation rate (%)	17.4	19.7	21.8	21.8	21.4	MNR
Undergraduates as a % of total enrollment (%)	74.1	75.5	76.4	76.4	76.2	78.7

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

	--Fiscal year ended June 30--					Medians for 'AA' rated public colleges and universities
	2022	2021	2020	2019	2018	2020
Freshman retention (%)	82.9	83.6	83.4	84.3	85.2	86.7
Graduation rates (six years) (%)	70.9	70.4	70.7	68.8	65.5	MNR
Income statement						
Adjusted operating revenue (\$000s)	N.A.	3,768,748	3,804,825	3,774,267	3,722,478	MNR
Adjusted operating expense (\$000s)	N.A.	3,767,327	3,801,804	3,681,053	3,647,614	MNR
Net adjusted operating income (\$000s)	N.A.	1,421	3,021	93,214	74,864	MNR
Net adjusted operating margin (%)	N.A.	0.04	0.08	2.53	2.05	0.80
Estimated operating gain/loss before depreciation (\$000s)	N.A.	301,622	291,688	369,852	336,281	MNR
Change in unrestricted net assets (UNA; \$000s)	N.A.	217,329	(83,491)	43,950	(766,837)	MNR
State operating appropriations (\$000s)	N.A.	845,481	810,518	780,221	751,894	MNR
State appropriations to revenue (%)	N.A.	22.4	21.3	20.7	20.2	19.3
Student dependence (%)	N.A.	38.2	43.1	44.1	43.0	40.0
Health care operations dependence (%)	N.A.	N.A.	N.A.	N.A.	N.A.	MNR
Research dependence (%)	N.A.	17.7	15.3	15.7	15.1	MNR
Endowment and investment income dependence (%)	N.A.	1.4	1.6	2.0	1.7	1.3
Debt						
Outstanding debt (\$000s)	N.A.	3,186,757	2,991,114	2,857,203	2,937,026	1,021,735
Proposed debt (\$000s)	N.A.	646,885	N.A.	N.A.	N.A.	MNR
Total pro forma debt (\$000s)	N.A.	3,567,872	N.A.	N.A.	N.A.	MNR
Pro forma MADS	N.A.	255,071	N.A.	N.A.	N.A.	MNR
Current debt service burden (%)	N.A.	3.15	6.20	6.54	6.09	MNR
Current MADS burden (%)	N.A.	6.22	6.20	6.13	6.25	3.30
Pro forma MADS burden (%)	N.A.	6.77	N.A.	N.A.	N.A.	MNR
Financial resource ratios						
Endowment market value (\$000s)	N.A.	1,204,034	1,013,070	948,195	842,858	999,171
Related foundation market value (\$000s)	N.A.	840,658	639,659	615,356	587,055	681,584
Cash and investments (\$000s)	N.A.	1,923,573	1,473,126	1,465,536	1,356,594	MNR
UNA (\$000s)	N.A.	27,708	(189,621)	(106,130)	(150,080)	MNR
Adjusted UNA (\$000s)	N.A.	1,480,252	1,162,489	1,122,955	1,015,333	MNR
Cash and investments to operations (%)	N.A.	51.1	38.7	39.8	37.2	53.0
Cash and investments to debt (%)	N.A.	60.4	49.3	51.3	46.2	167.7
Cash and investments to pro forma debt (%)	N.A.	53.9	N.A.	N.A.	N.A.	MNR
Adjusted UNA to operations (%)	N.A.	39.3	30.6	30.5	27.8	36.2

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

	--Fiscal year ended June 30--					Medians for 'AA' rated public colleges and universities
	2022	2021	2020	2019	2018	2020
Adjusted UNA plus debt service reserve to debt (%)	N.A.	46.5	38.9	39.3	34.6	104.9
Adjusted UNA plus debt service reserve to pro forma debt (%)	N.A.	41.5	N.A.	N.A.	N.A.	MNR
Average age of plant (years)	N.A.	12.6	12.3	11.9	11.8	13.6
OPEB liability to total liabilities (%)	N.A.	14.1	17.5	17.1	15.6	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 March 1, 2022)

Massachusetts Development Finance Agency, Massachusetts

University of Massachusetts System, Massachusetts

Massachusetts Development Finance Agency (University of Massachusetts System)

Long Term Rating AA-/Stable Outlook Revised

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

Unenhanced Rating AA-(SPUR)/Stable Outlook Revised

Massachusetts Dev Fin Agy (University of Massachusetts System)

Long Term Rating AA-/Stable Outlook Revised

Unenhanced Rating NR(SPUR)

Short Term Rating NR Affirmed

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

Long Term Rating AA-/Stable Outlook Revised

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

Long Term Rating AA-/Stable Outlook Revised

University of Massachusetts Bldg Auth (University of Massachusetts System) (AGM)

Unenhanced Rating AA-(SPUR)/Stable Outlook Revised

Univ of Massachusetts Bldg Auth rfdg rev bnds

Long Term Rating AA-/Stable Outlook Revised

Univ of Massachusetts Bldg Auth (University of Massachusetts System) rfdg rev bnds (University of Massachusetts System) ser 2021-2 due 11/01/2021

Long Term Rating AA-/Stable Outlook Revised

Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF

Ratings Detail (As Of March 1, 2022) (cont.)		
<i>Long Term Rating</i>	AA-/Stable	Outlook Revised
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Stable	Outlook Revised
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Stable	Outlook Revised
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Stable	Outlook Revised
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Stable	Outlook Revised
Univ of Massachusetts Bldg Auth (University of Massachusetts) rfdg rev bnds (University of Massachusetts) ser 2020-4 dtd 04/14/2020 due 06/30/2051		
<i>Long Term Rating</i>	AA-/Stable	Outlook Revised
Univ of Mass Bldg Auth (Univ of Mass Sys) PCU_USF		
<i>Long Term Rating</i>	AA-/Stable	Outlook Revised

Many issues are enhanced by bond insurance.

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Appendix D-3: Fitch Rating Report – March 2022

University of Massachusetts



Ratings

Long Term Issuer Default Rating AA

New Issues

\$60,290,000 University of Massachusetts Building Authority Senior Project Revenue Bonds, Series 2022-1	AA
\$351,940,000 University of Massachusetts Building Authority Senior Project Revenue Bonds (Taxable), Series 2022-2	AA
\$207,615,000 University of Massachusetts Building Authority Senior Refunding Revenue Bonds (Taxable), Series 2022-3	AA

[Outstanding Debt Details on Page 3](#)

Rating Outlook

Stable

Applicable Criteria

[Public Sector, Revenue-Supported Entities Rating Criteria \(September 2021\)](#)

[U.S. Public Finance College and University Rating Criteria \(November 2021\)](#)

Related Research

[Fitch Rates University of Massachusetts Ser 2022 Revs 'AA'; Outlook Stable \(February 2022\)](#)

New Issue Summary

Sale Date: Week of March 7, 2022

Series: Series 2022-1, 2022-2 (taxable), 2022-3 (taxable)

Purpose: Series 2022-1 and 2022-2 bond proceeds will be used to fund \$423.8 million in capital plans, and the series 2022-3 bond proceeds will refinance existing series 2013-2, 2014-1, 2015-1 and 2015-2 bonds for savings and pay cost of issuance.

Security: University of Massachusetts (UMass; or the university) revenue bonds are secured by a pledge of the university's gross unrestricted revenue and other legally available funds.

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 and the tolerable increase in debt associated with the current transaction. The 'F1+' rating is consistent with the university's strong long-term credit profile and reflects its ample reserves in support of its very modest self-liquidity obligations. The Stable Outlook reflects Fitch Ratings' expectation that UMass' financial and operating profile will remain resilient, with steady enrollment and a commitment to preserving a structural operating balance at each campus and across the system.

Key Rating Drivers

Revenue Defensibility: 'aa'; Manageable Enrollment Pressure, Strong State Support: The 'aa' revenue defensibility assessment reflects UMass' steady enrollment trends over time, against somewhat mixed demand characteristics that are reflective of a statewide public system. Enrollment has remained within a narrow band through the pandemic thus far, most recently with a 2% decline in fall 2021 following a 0.1% increase in fall 2020. The 'aa' assessment also reflects the consistent and solid support provided by the Commonwealth of Massachusetts (equal to about 24% of fiscal 2021 revenues) and the sustainable operating support provided by UMass' sizable endowment.

Operating Risk: 'aa'; Resilient Operating Performance; Sizable Capital Plans: The 'aa' operating risk assessment is driven by very steady operating results, with cash flow expected to remain solid near current levels (13.6% in fiscal 2021) beyond remaining pandemic impacts in fiscal 2022. UMass' systemwide operating and efficiency efforts are expected to bolster cash flow resilience in support of its robust capital improvement plan, which will be funded by a combination of external (both debt and public) and internal resources.

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. It had approximately \$1.9 billion in available funds (AFs) at fiscal YE 2021, equal to about 54% of total expenses and 44% of adjusted debt. The series 2022 transaction will weaken leverage to about 41% from 44%. Leverage levels are expected to remain fairly consistent with the 'aa' assessment through Fitch's stress case scenario, inclusive of additional debt expectations over the longer-term capital plan timeframe.

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

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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 translate into stronger cash flow and balance sheet strengthening, would prompt upward rating consideration, particularly as 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 resulting in adjusted cash flow levels consistently below 12% could pressure the rating, particularly against UMass' sizable 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 2021, the system enrolled 64,785 FTE students, 78% of whom were undergraduates. Of note, UMass' systemwide online platform (UMass Online) provided over 311,600 course credits across all five campuses in the 2020-2021 academic year, with over 300 degrees, certificates and continuing medical education programs, and UMass Online grew its revenue over 2% yoy.

The University of Massachusetts Building Authority (UMBA), the university's debt issuance arm (reported as a blended component unit of the university), 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. Fitch does not view the UMBA as having any distinct operating risk from that of UMass, and thus, no separate IDR is assigned.

Coronavirus Impact

The ongoing coronavirus pandemic has created an uncertain environment for the U.S. public finance higher education sector. Fitch's forward-looking analysis is informed by management's expectations and by Fitch's macroeconomic views. Fitch's scenarios will evolve as needed during this dynamic period. For the 2020-2021 academic year, remote learning was the predominant model with curtailed campus activity and residential occupancy. In the current 2021-2022 academic year, campuses have transitioned back to a predominantly on-campus mix of in person, hybrid, and some online instruction.

As a partial offset to the financial impacts of the Covid-19 pandemic, UMass was awarded \$145 million in Higher Education Emergency Relief Fund (HEERF) institutional federal stimulus aid, of which approximately \$14 million and \$58 million were recognized in fiscal years 2020 and 2021, respectively, with the remaining \$73 million to be used primarily in fiscal 2022. The Commonwealth is providing an additional allocation of \$47 million in American Rescue Plan Act (ARPA) funds in 2022 and 2023, in support of further pandemic mitigation and other targeted university efforts.

Revenue Defensibility

Enrollment has been somewhat pressured through the pandemic; total FTE enrollment fell by 2% in fall 2021 across the system, just short of a 1% budgeted decline. Management reports

Rating History (IDR)

Rating	Action	Outlook/ Watch	Date
AA	Affirmed	Stable	2/28/22
AA	Upgraded	Stable	10/13/10
AA-	Revised	Stable	4/30/10
A+	Affirmed	Stable	7/22/03
A+	Affirmed	—	2/18/03
A+	Affirmed	Stable	5/10/02
A+	Assigned	—	2/24/00

solid spring and application activity, and in particular, demand at the flagship Amherst campus has remained solid. Undergraduate retention and selectivity have remained largely steady, near 85% and 70% (acceptance rate), respectively, in fall 2021.

These enrollment datapoints exclude UMass Global, the system's online college, which primarily serves adult learners and came under UMass' sole corporate control in fall 2021. Amherst remains the largest campus by enrollment with nearly 30,000 FTE students (46% of total fall FTE enrollment) followed by Lowell and Boston at about 14,000 and 13,000 FTE students, respectively. Amherst's enrollment in fall 2021 was slightly ahead of both budget and prior-year levels.

Tuition remained flat for the second consecutive academic year in fall 2021, in a concerted effort to support access across the system. Increases are expected to remain modest going forward, at around 2% for undergraduates.

Solid Commonwealth support continues, with expectations of a modest increase in total support in fiscal years 2022 and 2023. Total Commonwealth appropriations (including for fringe benefits) were about \$845 million in fiscal 2021, and the budgeted base appropriation for fiscal 2022 is up slightly over the prior year. The fiscal 2023 proposed budget stipulates a 2.2% increase in the base appropriation. Separately, the Commonwealth is also providing an additional allocation of \$47 million in ARPA funds in 2022 and 2023 for relatively flexible use through 2027. The Commonwealth of Massachusetts' 'AA+' rating, with a Stable Outlook, reflects its considerable economic resources, adroit management of economic and revenue cyclicity and strong budget controls.

UMass' pooled endowment equaled about \$1.3 billion through December 2021 (unaudited), with a reported 16.5% fund return as of Dec. 31, 2021. The university utilized a 4% spending distribution in fiscal 2021 as it did in prior years, providing a \$35 million distribution to the university for operations.

Operating Risk

UMass' operating risk profile is assessed at 'aa', characterized by diverse revenues, a stable trend of breakeven operations and consistent cash flow margin averaging near 12% over the last three fiscal years. Fiscal 2021 results reflected a 13.6% cash flow margin, despite the coronavirus pandemic having an \$123 million net impact on performance (predominantly lost revenue in auxiliaries).

UMass successfully adjusted its operations by \$69 million to achieve operating balance and was further aided by \$88 million in federal and state stimulus funding. For fiscal 2022, UMass is committed to achieving balanced operations via expense reductions as an offset to below-budget enrollment and lingering pandemic-related costs.

UMass leadership continues to focus on sufficient and sustainable operations at each of its campuses and as a system overall. Solid cash flow remains an important offset to UMass' sizable capital plans, and management plans to closely monitor its capital and debt levels at the campus and system levels. UMass' policy is to sustain 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, including efforts driven campus-by-campus. Annual giving has been above \$115 million since fiscal 2014, including \$116.7 million in 2021, and UMass also benefits from fairly stable state capital appropriation support (equal to nearly \$63 million in fiscal 2021).

UMass' robust \$2 billion five-year capital plan through 2026 will be funded from a combination of additional debt, fundraising, state support and internal resources. Approximately 26% of the \$2 billion is already under construction, and UMass has issued 25% (\$328 million) of the debt in support of the plan.

Financial Profile

UMass is expected to maintain liquidity against its debt and expenses at a level consistent with the 'aa' assessment. UMass had approximately \$1.75 billion in AFs at fiscal 2020, equal to nearly 50% of total expenses and 43% of adjusted debt, and its leverage levels are expected to remain steady through Fitch's stress case scenario, inclusive of additional debt expectations.

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 ^a	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 CP Notes	AA
University of Massachusetts Building Authority CP Notes (Taxable)	AA
University of Massachusetts Building Authority Senior Project & Refunding Revenue Bonds	AA
University of Massachusetts Building Authority Senior Project Revenue Bonds	AA
University of Massachusetts Building Authority Senior Project Revenue Bonds (Federally Taxable)	AA
University of Massachusetts Building Authority Senior Project Revenue Bonds (Federally Taxable-Build America Bonds-Direct Pay to Issuer)	AA
University of Massachusetts Building Authority Senior Project Revenue Bonds (Taxable)	AA
University of Massachusetts Building Authority Senior Refunding Revenue Bonds	AA
University of Massachusetts Building Authority Senior Refunding Revenue Bonds (Taxable)	AA

UMass' financial profile is also assessed at 'aa'. Its debt burden remains manageable incorporating the series 2022-1, 2022-2, and 2022-3 transaction. Current debt service coverage (as Fitch calculates) was over 2.0x in fiscal 2021, and debt service is slightly front-loaded, with over half of the principal amortizing within 15 years.

Pro forma maximum annual debt service on the authority bonds is approximately \$234 million, with final maturity in 2052. 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. In addition, Fitch expects any future debt issuance will be accompanied by growth or maintenance of resources sufficient to cover debt service.

Total long-term debt equaled approximately \$3.2 billion at fiscal 2021, including CP (\$200 million maximum authorization, \$77 million drawn as of November 2021) and \$20 million in debt supported by self-liquidity that Fitch rates 'F1+' given the university's long-term credit quality and coverage from ample highly liquid resources.

Overall, UMass maintains adequate balance-sheet resources, with steady AFs against expenses of 54%. However, AFs are weaker against adjusted debt at just under 44%. Total adjusted debt, including debt equivalents, is closer to \$4.1 billion. Debt equivalents totaled about \$1.04 billion in fiscal 2021, in the form of noncancellable 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' \$644 million in reported net pension liability adjusted using a 6% discount rate (down from the 7.15% disclosed discount rate) to a total \$884 million net liability. The state provides support for a portion of UMass' fringe benefit costs that equaled \$277 million net of the university's contribution of its portion in fiscal 2021.

Asymmetric Additional Risk Considerations

No asymmetric additional risk considerations apply to UMass' ratings.

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.

Demand Summary

(Fall Semester of Fiscal Years Ended June 30)	2019	2020	2021	2022
Headcount				
Total Undergraduate Enrollment	57,069	57,364	56,945	55,218
Total Graduate Enrollment	17,636	17,701	18,486	19,336
Total Headcount Enrollment	74,705	75,065	75,431	74,554
Total Undergraduate / Total Headcount Enrollment (%)	76.4	76.4	75.5	74.1
Full-Time Equivalent (FTE)				
Total FTE Undergraduate Enrollment	52,646	53,095	52,633	50,721
Total FTE Graduate Enrollment	12,664	12,908	13,437	14,064
Total FTE Enrollment	65,310	66,003	66,070	64,785
5-Year FTE Enrollment CAGR (%)	1.3	1.2	0.8	0.3
Admissions				
Freshman Applications	74,333	78,615	77,299	80,611
Freshman Admissions	49,584	52,895	53,787	58,619
Acceptance Rate (%)	66.7	67.3	69.6	72.7
Freshman Matriculants	10,832	11,530	10,577	10,226
Matriculation Rate (%)	21.9	21.8	19.7	17.4
Transfer Applications	10,900	10,302	9,823	9,846
Transfer Admissions	7,815	7,229	6,886	6,816
Acceptance Rate (%)	71.7	70.2	70.1	69.2
Transfer Matriculants	4,538	4,199	3,917	3,777
Matriculation Rate (%)	58.1	58.1	56.9	55.4
Student Demand Data				
In-State Undergraduate Student (%)	83.5	83.2	82.5	82.3
Out-of-State Undergraduate Student (%)	16.5	16.8	17.5	17.7
Average Freshmen SAT	1183	1182	1184	1231
Freshmen to Sophomore Year Retention Rate (%)	84.3	83.4	82.9	82.9
Six Year Graduation Rate (%)	68.8	70.7	70.9	70.9
Annual Undergraduate Cost of Attendance (\$)				
Tuition	15,406	15,791	15,791	15,791
Mandatory Fees	481	598	648	648
Room & Board	12,626	13,004	13,329	13,595
Total	28,513	29,393	29,768	30,034

Sources: Fitch Ratings, Fitch Solutions, University of Massachusetts.

Financial Ratios

(Audited Fiscal Years Ended June 30)	2018	2019	2020	2021
Revenue Diversity (% Operating Revenues)				
Tuition	25.6	26.0	26.5	26.9
Student Fees (Tuition & Auxiliary Revenues)	37.9	38.8	37.4	31.6
Total Grants & Contracts	19.0	19.9	20.3	24.5
State Appropriations	22.0	22.7	23.4	24.4
Healthcare Operations	0.0	0.0	0.0	0.0
Gifts & Contributions	1.1	1.3	1.2	1.2
Total Investment Return	1.9	2.2	1.8	2.6
Expense Ratios (% Operating Expenses)				
Instruction	25.7	26.7	27.1	26.8
Research	13.8	14.4	13.7	15.9
Healthcare Operations	0.0	0.0	0.0	0.0
Operation & Maintenance of Plant	7.5	7.3	6.8	6.5
Depreciation	7.7	8.1	8.1	8.6
Interest	3.4	3.4	3.1	3.0
Financial Aid Ratios				
Tuition Discounting (%)	26.2	26.9	27.2	27.1
Net Tuition & Fees (\$)	874,826	894,904	917,876	930,613
Change in Net Tuition & Fees (%)	3.2	2.3	2.6	1.4
Net Tuition Revenue / FTE (\$)	13,557	13,702	13,907	14,085
Change in Net Tuition Revenue / FTE (%)	2.3	1.1	1.5	1.3
5-Year Net Tuition Revenue per FTE Enrollment CAGR (%)	2.9	2.6	2.5	1.5
Operating Performance Ratios (%)				
Adjusted Operating Margin	(0.1)	0.8	(2.5)	(0.7)
Cash Flow Margin - Adjusted	13.3	14.4	13.0	13.6
Capital Expenditures as % of Depreciation	186.6	138.1	118.2	107.4
Average Age of Plant (Years)	11.8	12.0	12.3	12.6
Balance Sheet Ratios (%)				
Available Funds / Total Operating Expense	52.3	48.9	49.4	60.8
Available Funds / Total Long Term Debt	57.9	54.9	54.9	65.0
Available Funds / Adjusted Debt	46.4	43.7	42.6	49.3
Available Funds / MADS (x)	8.2	7.1	7.5	9.0
Debt Ratios				
Current Debt Service Coverage (x)	2.0	2.0	2.0	4.0
Current Debt Burden (%)	6.5	7.0	6.3	3.4
Pro Forma MADS Coverage (x)	2.1	2.1	1.9	2.0
Pro Forma MADS Burden (%)	6.4	6.8	6.7	6.8
Variable Rate Bonds as % of Total Bonds	14.7	15.0	13.3	0.7
Hedged Variable Rate Bonds as % of Total Bonds	14.0	14.3	12.6	0.0

Note: Fitch may have reclassified certain financial statement items for analytical purposes.
Sources: Fitch Ratings, Fitch Solutions, University of Massachusetts.

Financial Summary

(\$000, Audited Fiscal Years Ended June 30)	2018	2019	2020	2021
Operating Revenues				
Gross Tuition & Fees	1,184,932	1,223,749	1,260,907	1,275,741
Less: Student Aid	310,106	328,845	343,031	345,128
Net Tuition & Fees (\$000)	874,826	894,904	917,876	930,613
Sales & Services of Auxiliary Enterprises	416,733	441,795	378,314	163,812
Federal Grants & Contracts	88,278	91,458	122,375	179,545
Other Grants & Contracts	560,990	593,086	581,850	667,149
State Appropriations	751,894	780,221	810,518	845,481
Gifts & Contributions	39,022	43,705	41,996	41,262
Dividend & Interest Income	37,622	48,943	32,762	58,383
All Other Operating Revenues	616,265	523,569	547,990	541,367
Total Operating Revenue	3,385,630	3,417,681	3,433,681	3,427,612
Unrealized / Realized Gains Portion of Endowment Payout	26,742	27,741	28,113	31,965
Adjusted Total Operating Revenue	3,412,372	3,445,422	3,461,794	3,459,577
Operating Expenses				
Instruction	876,235	912,415	960,548	934,793
Academic Support	187,495	186,502	200,928	199,897
Institutional Support	271,535	274,326	303,100	314,676
Student Services	156,934	160,751	157,842	141,160
Public Service	403,454	313,072	340,496	351,060
Research	471,135	490,887	485,759	552,472
Auxiliary Enterprises	313,741	340,346	336,497	218,370
Student Aid	50,410	49,511	65,469	85,500
Operation & Maintenance of Plant	255,825	248,581	241,880	226,965
Depreciation	261,417	276,638	288,667	300,201
Interest Expense	115,851	116,217	109,186	105,469
All Other Operating Expenses	52,211	48,282	56,256	53,485
Total Operating Expense	3,416,243	3,417,528	3,546,628	3,484,048
Change in Net Assets from Operations	(30,613)	153	(112,947)	(56,436)
Adjusted Change in Net Assets from Operations	(3,871)	27,894	(84,834)	(24,471)
Non-Operating Revenues/(Expenses)				
Realized & Unrealized Gain/(Loss) on Investments	13,724	31,549	(6,331)	125,537
Capital Appropriations	67,437	25,500	51,525	62,592
Capital Grants & Gifts	8,732	13,165	7,516	8,528
Other Non-Operating Revenues/(Expenses)	(8,436)	(14,610)	(7,491)	(15,885)
Total Non-Operating Revenue (Expense)	81,457	55,604	45,219	180,772
Change in Net Assets	77,586	83,498	(39,615)	156,301
Adjusted Change in Net Assets from Operations	(3,871)	27,894	(84,834)	(24,471)
Add: Interest Expense	115,851	116,217	109,186	105,469
Add: Pension Expense	58,500	52,200	93,200	100,900
Add: Depreciation Expense	261,417	276,638	288,667	300,201
Less: Pension Contributions	28,292	35,843	40,617	31,495
Add: Non-Cash OPEB Expenses	48,579	48,963	75,860	23,961
Cash Flow	452,184	486,069	441,462	474,565
Adjusted Change in Net Assets from Operations	(3,871)	27,894	(84,834)	(24,471)
Add: Interest Expense	115,851	116,217	109,186	105,469
Add: Pension Expense	58,500	52,200	93,200	100,900

Financial Summary

(\$000, Audited Fiscal Years Ended June 30)	2018	2019	2020	2021
Add: Depreciation Expense	261,417	276,638	288,667	300,201
Financial Summary				
(\$000, Audited Fiscal Years Ended June 30)	2018	2019	2020	2021
Total Pension Service Cost	28,031	26,490	32,308	36,226
Add: Non-Cash OPEB Expenses	48,579	48,963	75,860	23,961
Cash Flow - Adjusted	452,445	495,422	449,771	469,834
Current Debt Service	222,150	240,687	218,309	118,485
Pro Forma Maximum Annual Debt Service (MADS)	218,913	234,344	233,075	234,490
MADS Fiscal Year	2020	2031	2024	2024
Balance Sheet - Assets				
Cash & Cash Equivalents	430,389	317,892	386,045	306,859
Investments	1,245,433	1,359,570	1,369,460	1,803,050
Total Cash & Investments	1,675,822	1,677,462	1,755,505	2,109,909
Property, Plant & Equipment, Gross	8,152,372	8,468,937	8,754,330	9,029,561
Less: Accumulated Depreciation	3,076,896	3,304,737	3,547,761	3,785,592
Property, Plant & Equipment, Net	5,075,476	5,164,200	5,206,569	5,243,969
Balance Sheet - Liabilities & Net Assets				
Fixed Rate Bonds Payable	2,447,485	2,313,245	2,591,064	2,964,032
Unhedged Variable Rate Bonds Payable	20,000	20,000	20,000	20,000
Hedged Variable Rate Bonds Payable	401,310	389,095	376,375	0
Total Bonds Payable	2,868,795	2,722,340	2,987,439	2,984,032
Capitalized Leases	2,262	1,836	2,189	2,193
Commercial Paper	65,969	132,810	1,486	31,000
Total Other Obligations	457,105	565,637	434,541	464,414
Total Long Term Debt	3,089,068	3,042,378	3,196,178	3,259,675
Operating Lease Expense	20,600	34,600	34,900	30,600
Fitch Adjusted Net Pension Liability (NPL, UAAL)	659,892	607,027	748,557	883,787
Debt Equivalents	762,892	780,027	923,057	1,036,787
Adjusted Debt	3,851,960	3,822,405	4,119,235	4,296,462
Unfunded Capital Commitments	35,151	55,696	34,457	28,043
Unrestricted Net Assets	(150,080)	(106,130)	(189,621)	27,708
Invested in Capital	2,288,599	2,343,872	2,376,333	2,306,226
Restricted Net Assets - Non-Expendable (Fitch-Adjusted)	28,022	28,617	22,252	22,378
Restricted Net Assets - Expendable (Fitch-Adjusted)	222,343	206,023	223,803	232,756
Total Net Assets	2,388,884	2,472,382	2,432,767	2,589,068
Balance Sheet - Resources & Liquidity				
Available Funds (AF)	1,647,800	1,648,845	1,733,253	2,087,531
Foundation Available Funds	140,015	22,585	20,462	31,890
Total Available Funds (University & Foundation)	1,787,815	1,671,430	1,753,715	2,119,421
Statement of Cash Flows				
Depreciation	261,417	276,638	288,667	300,201
Net Cash Generated/ (Used) in Operating Activities	(342,853)	(508,876)	(626,986)	(586,043)
Additions of PP&E/Capital Assets	487,912	382,048	341,247	322,341
Payments on Bonds Payable	96,325	103,170	549,788	708,067
Cash Paid for Interest	125,825	137,517	132,468	153,367
Pension Plans				
Total Pension Liability (TPL, AAL)	1,281,592	1,275,534	1,562,097	1,718,761

Financial Summary

(\$000, Audited Fiscal Years Ended June 30)	2018	2019	2020	2021
Fiduciary Net Position (FNP, AVA)	861,358	866,215	1,035,358	1,073,882
Fitch Adjusted Total Pension Liability (TPL, AAL)	1,521,250	1,473,242	1,783,914	1,957,668
Fitch Adjusted Net Pension Liability (NPL, UAAL)	659,892	607,027	748,557	883,787
Fitch Adjusted Ratio of Assets to Liabilities (FNP/TPL, AVA/AAL) (%)	56.6	58.8	58.0	54.9
Pension Expense	58,500	52,200	93,200	100,900
Pension Contributions	28,292	35,843	40,617	31,495
Total Pension Service Cost	28,031	26,490	32,308	36,226

Note: Fitch may have reclassified certain financial statement items for analytical purposes.
Sources: Fitch Ratings, Fitch Solutions, University of Massachusetts.

Key Definitions

Term	Definition	Significance
Issuer Default Rating (IDR)	An expression of overall enterprise risk and relative vulnerability to default.	Provides an opinion on the relative ability of an entity to meet financial commitments, expressed as an ordinal measure of credit risk.
Base Case	The expected forward-looking case in the current macroeconomic environment.	Provides the analytical starting point in the forward-looking analysis, and also informs the stress case.
Stress Case	Forward-looking performance under a common set of assumptions.	Illustrates how cycles affect individual institutions differently, and informs the level of rating stability and credit resiliency.
Adjusted Debt	Total long-term debt + unfunded pension liability + an operating lease expense multiple	Provides an inclusive evaluation of total long-term liabilities.
Available Funds	Cash + investments - permanently restricted net assets (including those of closely related foundations and endowments)	Provides an absolute measure of total balance sheet resources. Excludes bond proceeds.
Adjusted Operating Margin (%)	(Total adjusted operating revenue - total operating expense)/total adjusted operating revenue	Provides an operating performance measure inclusive of the endowment income available in operations.
Cash Flow	Adjusted change in unrestricted net assets from operations + depreciation + amortization + interest expense + pension expense - pension contribution + non-cash OPEB expense + other non-cash expenses	Indicates the absolute level of resources available to service debt obligations after the payment of cash-based operating expenses. Adjusted for non-recurring/extraordinary items.
Cash Flow - Adjusted	Adjusted change in unrestricted net assets from operations + depreciation + amortization + interest expense + non-cash OPEB expense + other non-cash expenses + pension expense - proportionate pension service cost	Indicates the level of operating efficiency, using the level of an institution's operating surplus (or deficit) available to cover all of its annual outlays.
Debt Service Coverage	Cash flow/current debt service	Indicates the net income available to meet annual debt service requirements.
Average Age of Plant	Accumulated depreciation/depreciation expense	Provides an indication of the condition of the physical operating plant, and the level of needed reinvestment.
Capital Expenditures as % of Depreciation	Net acquisitions of property plant and equipment/depreciation expense	Indicates the level of investment in physical plant over time, which informs the need for future investment.

Source: Fitch Ratings.

The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.

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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 Student File	annual	BOT		Academic Affairs	DHE		BOT		https://www.umassp.edu/aasa/ir/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/reports-and-initiatives/financial-aid-report
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		https://www.umassp.edu/budget-office/reports-and-initiatives/annual-operating-budget-and-financial-forecast
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/aasa/ir/institutional-research/annual-publications
IPEDS - Amherst	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/institutionprofile.aspx?unitid=166629
IPEDS - Boston	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/institutionprofile.aspx?unitid=166638
IPEDS - Dartmouth	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/institutionprofile.aspx?unitid=167987
IPEDS - Lowell	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/institutionprofile.aspx?unitid=166513
IPEDS - Medical	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/institutionprofile.aspx?unitid=166708
IPEDS - Global	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/institutionprofile.aspx?unitid=262086
IPEDS - Central	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/institutionprofile.aspx?unitid=166665
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/aasa/ir/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/aasa/ir/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/aasa/ir/institutional-research/annual-publications

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
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	
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
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.umassp.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.umassp.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.umassp.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.umassp.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.umassp.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/editor_uploads/images/communications/For-The-Times-UMass-Boston-Strategic-Plan.pdf
UMD - Strategic Plan		Strategic Planning		Campus			President / BOT		Not on website
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	FY22 Total Savings (\$)
Capital	EBS Spectrum	30,000,000
Capital	Utility Metering & SCADA	2,286,000
Capital	Med School Power Plant	958,148
Capital	Southwick Hall Interdisciplinary Robotics Lab	637,962
Capital	UMA Parking Lot Reconstruction	602,345
Capital	Cranberry Research, Extension, & Learning Center	590,634
Capital	Parking Lot Re-paving	520,533
Capital	Morrill IV South	449,379
Capital	Chiller Replacement Project	395,002
Capital	ATS Replacement at LRB	359,932
Capital	UML North Campus Power Plant Boiler	323,316
Capital	All Other Projects - Under \$300k Savings	4,491,699
General Services & Supplies	Re-bidding of UMB Transportation (Paul Revere)	451,700
General Services & Supplies	Library Services Contract Renewal Negotiations	438,974
General Services & Supplies	UMB Bookstore Operation Bid	290,000
General Services & Supplies	Cable TV	222,720
General Services & Supplies	All Other Projects – Under \$50k Savings	81,133
Information Technology	Microsoft licensing for FY22-FY24	935,001
Information Technology	Comcast IPTV Streaming	283,168
Information Technology	Salesforce Pricing Systemwide	230,852
Information Technology	All Other Projects – Under \$50k Savings	10,257
Marketing & Advertising	Print Services	1,200,000
MRO	Elevator Preventative Maintenance	778,380
MRO	All Other Projects – Under \$50k Savings	47,989
Other	UMA Racing Shells for Athletics	7,989
Professional Services	Toshiba COVID Concessions	526,370
Professional Services	Fundraising Service	235,409
Professional Services	Contracts for Guardian Vision and Cigna Dental	151,756
Professional Services	Property Recovery	129,029
Professional Services	UMA Website Ecosystem Redesign	62,281
Professional Services	All Other Projects – Under \$50k Savings	-10,942
Total		47,687,016