

Impact through Excellence, Innovation and Resilience: How UMass is Positioned to Lead a Post-Pandemic Recovery

Report to the Legislature

March 15, 2021



University of Massachusetts

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

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This report has been prepared in accordance with Chapter 227 of the Acts of 2020 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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March 15, 2021

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

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

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

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

In accordance with the General Appropriations Act for Fiscal Year 2021 (C.227 of the Acts of 2020) and the provision of section 73(h) of C.46 of the acts of 2015, I am pleased to submit the attached report required by budget line item 7100-0200 for the UMass to present:

“...to the chairs of the house and senate committees on ways and means and the chairs of the joint committee on higher education to review: (i) its 5-year projected spending plan for academic years 2021 through 2026, including anticipated cost savings initiatives and efforts to reduce student tuition and fees; and (ii) a comprehensive report on spending over the previous 5 academic years; provided further, that the report shall include, but not be limited to, for each year: (a) personnel costs, delineated by staff type and type of pay, including, but not limited to, base pay and bonus pay; (b) the number of full-time equivalent employees, delineated by staff type; (c) non-instructional administrative costs; (d) costs related to asset management and acquisition; (e) annual enrollment growth; (f) annual tuition and fee growth; (g) fee structure; (h) expenditures on direct student financial aid; (i) average financial aid award per financial aid recipient...”

Due to the unique nature of Fiscal Year 2021, and the significant uncertainty caused by the global pandemic that has impacted our operations, our multi-year financial forecast will be updated and presented at the June 2021 Board of Trustees meeting. To ensure the most accurate projections, we will be filing an addendum to this report in June 2021 laying out the next five years’ financial forecast.

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

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

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



Sincerely,

Martin T. Meehan, President
University of Massachusetts

Kumble R. Subbaswamy, Chancellor
UMass Amherst

Marcelo Suárez-Orozco, Chancellor
UMass Boston

Mark Fuller, Chancellor
UMass Dartmouth

Jacqueline F. Moloney, Chancellor
UMass Lowell

Michael F. Collins, Chancellor
UMass Medical School

Attachment: Report to Legislature: **“Impact through Excellence, Innovation and Resilience:
How UMass is Positioned to Lead a Post-pandemic Recovery”**



**Impact through Excellence, Innovation and Resilience:
How UMass is Positioned to Lead a Post-pandemic Recovery**

Report to the Legislature
March 15, 2021

EXECUTIVE SUMMARY

Introduction

One year ago today, about half way through its spring semester, the 5-campus University of Massachusetts was forced to abruptly transition to an entirely remote work and learning environment due to the outbreak of the COVID-19 pandemic. The leadership, innovation and resilience demonstrated by our campuses, system-wide leadership, faculty and staff resulted in 18,000 UMass students graduating on time despite unprecedented disruption, a historically high percentage of our students finishing the year in good academic standing, and the university well-positioned to withstand serious short- and long-term financial challenges.

Aided by federal relief funds and the generosity of UMass alumni and friends, and supplemented by innovative cost-saving strategies, the university was able to assist thousands of students with emergency aid, distance learning technology and other support to keep them on track. This was despite the loss of \$64 million in housing, dining and other revenue three quarters of the way through fiscal year 2020.

At the same time, our faculty, staff and students rallied in support of the Commonwealth and its communities in confronting the pandemic in those first few months. The Medical School graduated its 2020 class early so nearly a hundred newly minted physicians could move directly to overburdened hospitals, and countless nursing students went to work in hospitals and other health care facilities. Our campuses donated personal protective equipment (PPE) to local hospitals where supplies were severely depleted and provided space for field hospitals and testing sites. Our research labs turned their attention to testing of PPE, development of therapeutics and vaccines, and the study of the socio-economic impacts of the pandemic on communities, especially communities of color. Our campuses are now participating in the vaccination effort by establishing, operating or staffing large-scale sites on the Amherst campus, and in Worcester, as well as partnering with local boards of health and volunteering at community-based sites in Lowell, Boston and the Southcoast region.

Despite the unforeseen challenges encountered in the spring of 2020, the university remained singularly focused on protecting the health and safety of its students, faculty, staff and communities. Recognizing that the pandemic and its effects were likely to continue into 2021, the university remained highly disciplined in its financial management and finished FY20 in a positive position. This sound management was endorsed in reports by multiple national ratings agencies.

As FY21 came into focus, it was clear that the financial challenges facing the University of Massachusetts and all of higher education nationwide would exponentially grow. The financial stress was exacerbated by uncertainty related to state support, federal aid, enrollment, housing/dining revenue, and increased health and safety expenses. The university initially projected a \$335 million budget shortfall and began implementing measures designed to not just survive the current fiscal year, but position the university to emerge from the pandemic in a strong position to drive the post-pandemic economic recovery.

As we file this report, the University of Massachusetts remains the Commonwealth's top provider of workforce talent, the third largest employer, and the third largest university research enterprise. Pre-pandemic, the university generated \$7.5 billion in economic activity and created 30,000 private sector jobs.

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

System-wide innovative management and rigorous cost containment have allowed for increased financial aid over the last several years, fulfilling the university's commitment to affordability and funding additional investments in student support and academic quality that further enhance student success. This remains a priority for the university as evidenced by its freezing of tuition for the current academic year.

Consistent with our longstanding commitment to collaboration and transparency, UMass is pleased to take this opportunity, created by Chapter 41 of the Acts of 2019, to provide this comprehensive report on financial and programmatic trends, building on reports that UMass annually produces and provides to the Legislature and public. These reports are all available online.

We direct your attention to five key findings illuminated by this report:

1. UMass quality has been sustained.

- Enrollment has grown 4.2% since FY16.
- Enrollment of Massachusetts residents has grown 5.9% since FY16.

- Academic quality of incoming students is rising.
- Every campus is nationally ranked:
 - The University of Massachusetts System is ranked No. 33 on the Reuters list of “Most Innovative Universities in the United States.”
 - UMass Amherst is ranked the No. 26 public university in the nation by U.S. News & World Report.
 - UMass Boston has five graduate programs ranking in the top 100 nationwide.
 - UMass Dartmouth is ranked No. 3 in Massachusetts and No. 84 nationwide for student social mobility by U.S. News & World Report.
 - UMass Lowell is ranked the No. 89 public national university by U.S. News & World Report.
 - UMass Medical School is among the highest ranked medical schools in the nation for primary care education (No. 15 nationally), according to U.S. News & World Report, and is No. 8 among all public medical schools and 2nd in New England only behind Yale in NIH funding.
 - First-year enrollment at the UMass School of Law has grown by 71 percent since earning full American Bar Association accreditation in 2016, and its bar pass rates are now consistently higher than several private Massachusetts law schools.

2. UMass is keeping its high-quality education affordable and accessible, despite per-student state funding declining 15.3% since FY10 in non-inflation adjusted dollars while enrollment has increased.

- At the recommendation of President Marty Meehan, the Board of Trustees froze tuition for the current academic year.
- Graduates from every UMass campus make a higher salary than at least 59 percent of graduates from all other Massachusetts colleges and universities.
- UMass increased its commitment to institutionally-funded financial aid from \$109 million in FY10 to \$351 million in FY20.
- UMass is scaling up its online offerings to break down barriers of time and distance for students, especially hundreds of thousands of adult learners in Massachusetts who have started their pursuit of a college degree but have been unable to finish.
- Each of our campuses has high quality programming serving veterans.

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

- Pre-pandemic, UMass generated a \$7.5 billion annual economic impact in Massachusetts - a 10-to-1 return on investment for the Commonwealth.
- UMass is the 3rd largest employer in Massachusetts, supporting a non-student workforce of nearly 18,000 people while spinning off approximately 30,000 non-UMass jobs.
- With the third-largest university research enterprise in Massachusetts behind only Harvard and MIT, the university's \$687 million in annual research and development drives innovation and fosters economic development in all corners of the state.
- 90 core scientific facilities at UMass campuses are made available to Massachusetts companies to accelerate commercial research and development.
- UMass conducts 17 percent of all research in Massachusetts.
- UMass graduates about 18,000 students every year.
- 83 percent of UMass undergraduate students are from Massachusetts.
- There are more than 320,000 UMass graduates living and working in Massachusetts.
- A strategic, incentive-based compensation effort (comprising just 0.2 percent of the university's payroll) has helped UMass attract and retain highly talented professionals and world-class faculty.
- Over 80 percent of these incentives go to UMass Medical School researchers, physicians, and executives who are responsible for attracting large federal and private grants, curing diseases, and strengthening the Commonwealth's life science economy.

4. Embracing the challenge put forth by the Saxon Commission and the Commonwealth in creating the UMass system three decades ago, UMass is leads Massachusetts higher education in developing high-impact efficiencies across the five campuses, allowing for investments in financial aid, student services, and academic quality.

- In 2021, Moody's, Fitch, and S&P have all independently re-affirmed the university's strong financial position, citing the university's "large scale and scope of operations ... and its excellent strategic positioning that incorporates disciplined fiscal oversight." "These factors, combined with disciplined budget management, will provide UMass with sufficient runway to manage through near-term operating volatility associated with the pandemic."
- UMass Efficiency and Effectiveness initiatives from FY11 to FY19 saved the University \$99.8 million.
- A restructuring of UMass procurement systems has saved \$26.9 million in its first year.

- The UMass Foundation, working with each of the campuses and through the Commonwealth's Endowment Incentive Program has increased the number of endowed chairs and professorships (top scholars) from 1 to 111 since 1997.
- Bold and innovative initiatives such as acquisition of the Bayside property near the Boston campus (\$12-to-\$1 return on investment), and a strategic partnership with a non-profit online education provider are producing academic and financial benefits.
- Confronting a \$4.0 billion deferred maintenance challenge, UMass is funding 86 percent of its capital plan to assure students have the facilities they need and deserve to succeed in light of the state's limited capital investment in UMass.
- A refinancing/restructuring of capital debt earlier this year saved the university \$21.4 million.

For more than two decades, UMass has embraced a model public reporting system to keep policymakers and the public well-informed of its stewardship. These reports, available at www.UMassP.edu, include, but are not limited to:

- Annual operating budgets
- Financial forecasts
- Ratings agency reports
- Annual Indicators
- Capital plans
- Student profiles and enrollment reports
- Research expenditure reports
- Financial aid reports
- Sustainability reports

Conclusion

When this report was filed last year, the university predicted that the next decade would be a time of disruption for public and private higher education in Massachusetts and around the country due to demographic trends. Because birth rates plunged during the extraordinary recession of 2008 - 2010, the decline in overall population of traditional college-aged students will accelerate in the second half of this decade, especially in New England, which has the nation's highest concentration of colleges and the lowest birth rates.

At the same time that the traditional college-aged population is shrinking, however, Massachusetts faces relentless demands to attract, develop, and retain the talent necessary to sustain and grow our innovation economy. Now, add the impacts of the pandemic, which have caused economic dislocation.

This means we have an obligation to develop the talent that is already here, especially among underserved populations. Massachusetts is home to hundreds of thousands of adults who have

begun, but not finished, their college degrees. They represent an extraordinary pool of talent that UMass, through our affordability, accessibility, and range of educational offerings, is uniquely positioned to serve.

For decades, the UMass system has proven that we effectively manage fiscal and demographic challenges and still grow even stronger as we do so. The university has taken bold and decisive steps to continue to fulfill our critical mission of access, opportunity, and excellence, and we are prepared to do even more as we emerge from a pandemic and begin our collective recovery.

#1. About UMass



University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

About UMass

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



About UMass

University of Massachusetts Amherst

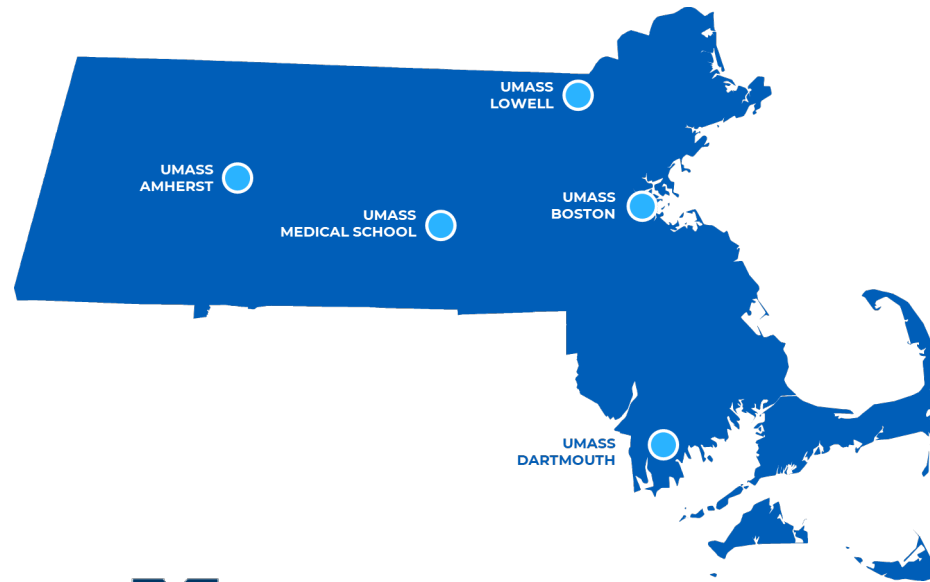
- Land Grant Founded in 1863; Flagship Campus
- Broad Research Mission With Strengths In Life Sciences, Computer Science And Engineering
- Institute for Applied Life Sciences
- UMass Innovation Institute
- Center for Hierarchical Manufacturing
- STEM Diversity Institute
- Pioneer Valley Life Sciences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



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



University of Massachusetts



UMass | Dartmouth

- National University With Liberal Arts And Marine Sciences Emphasis
- Advanced Technology and Manufacturing Center (Fall River)
- Center for Scientific Computing and Visualization
- School of Marine Science and Technology (New Bedford)
- UMass School of Law



- 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)
- UMass Innovation Institute
- Center for Hi-Rate Nano-manufacturing
- Emerging Technologies and Innovation Center
- N.E. Robotics Validation & Experimentation (NERVE) Center
- Raytheon-UMass Lowell Research Institute (RURI)



- Research Focus Aligned With Urban Mission – Social Sciences, Education, Life Sciences
- Center for Personalized Cancer Therapy
- Venture Development Center

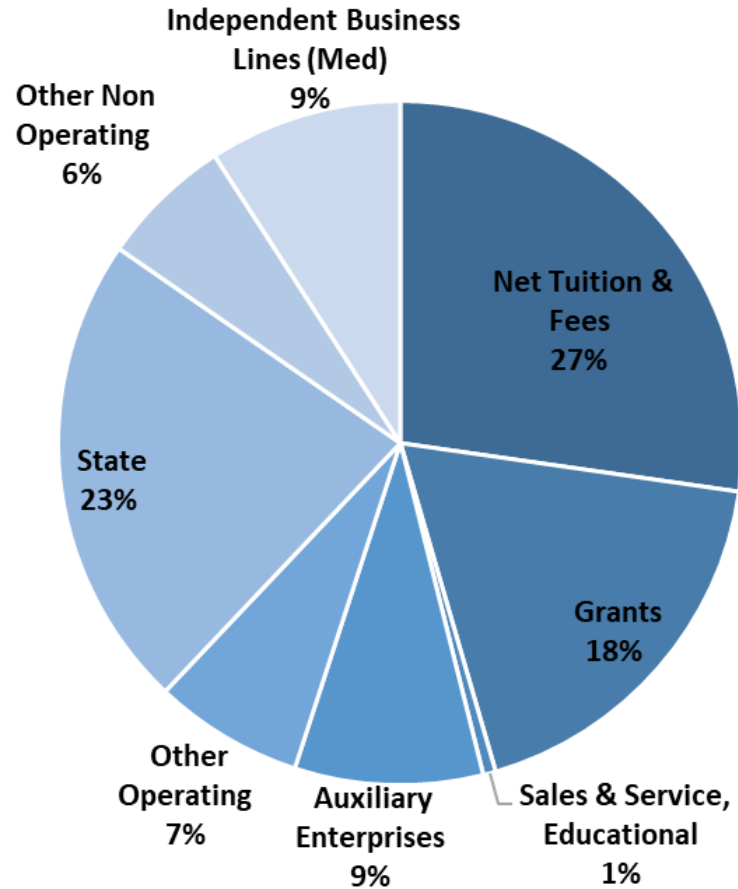
About UMass: Size, Impact, and Scope

- UMass has a \$3.3 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 320,000 alumni in Massachusetts, 500,000+ around the world – UMass has the largest alumni population in Massachusetts
- 33rd most innovative University in the U.S. according to Reuters
- UMass conducts 16 percent of all research in Massachusetts
- 727 degree programs offered
- 75,431 students by headcount, 66,070 FTE students
- 24,000 employees (including students) making UMass the 3rd largest employer in Massachusetts

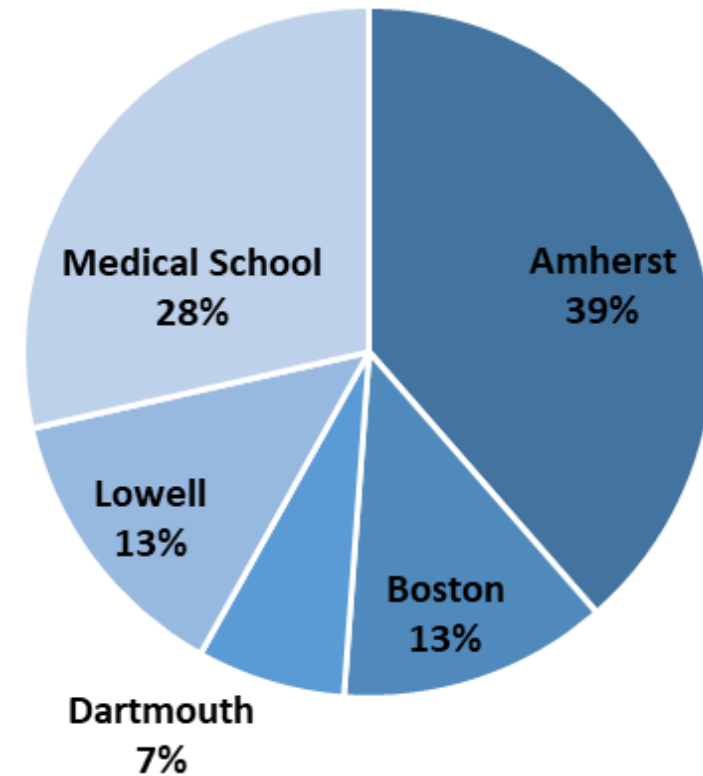
About UMass: Total Revenue = \$3.27 Billion

UMass has strong revenue diversity, including tuition, state support and research activity.

FY21 Revenue By Type

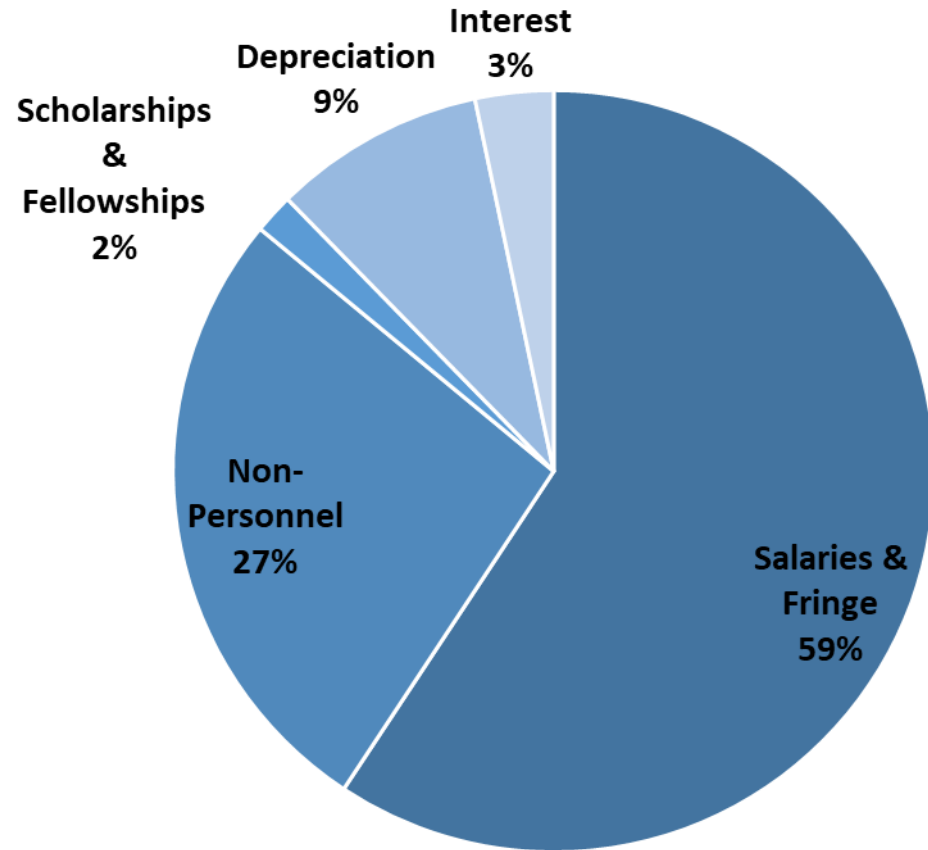


FY21 Revenue By Campus

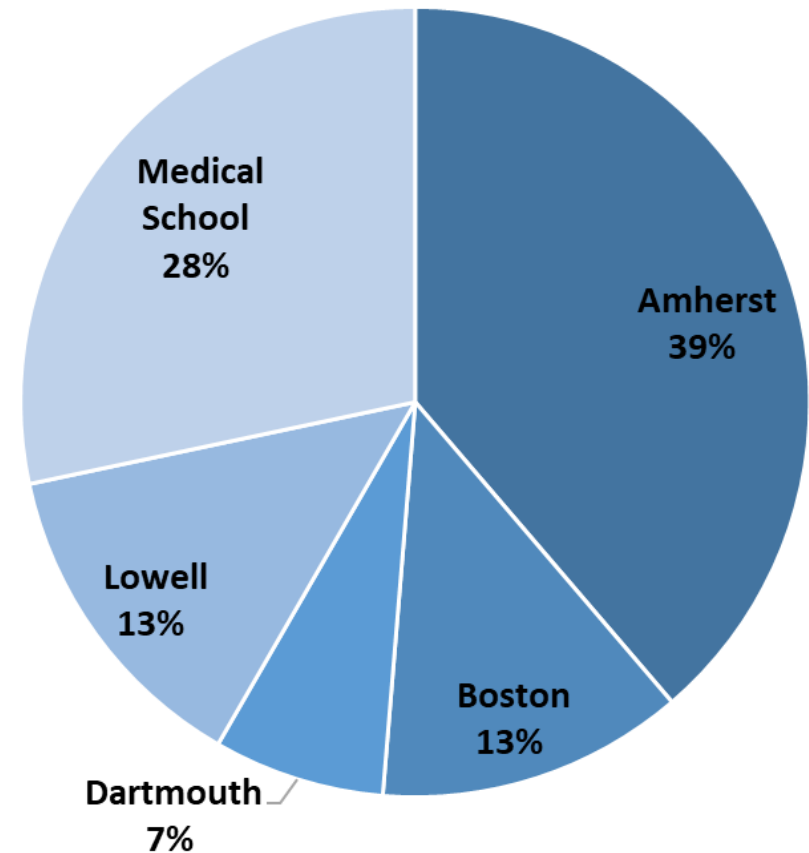


About UMass: Total Expenses = \$3.27 Billion

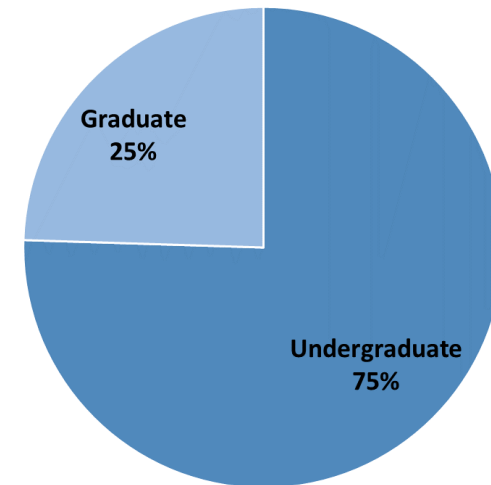
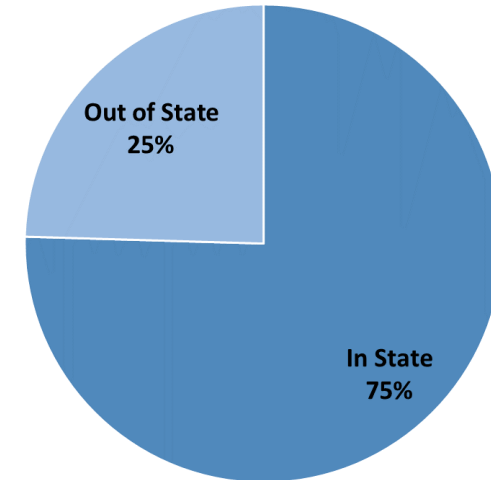
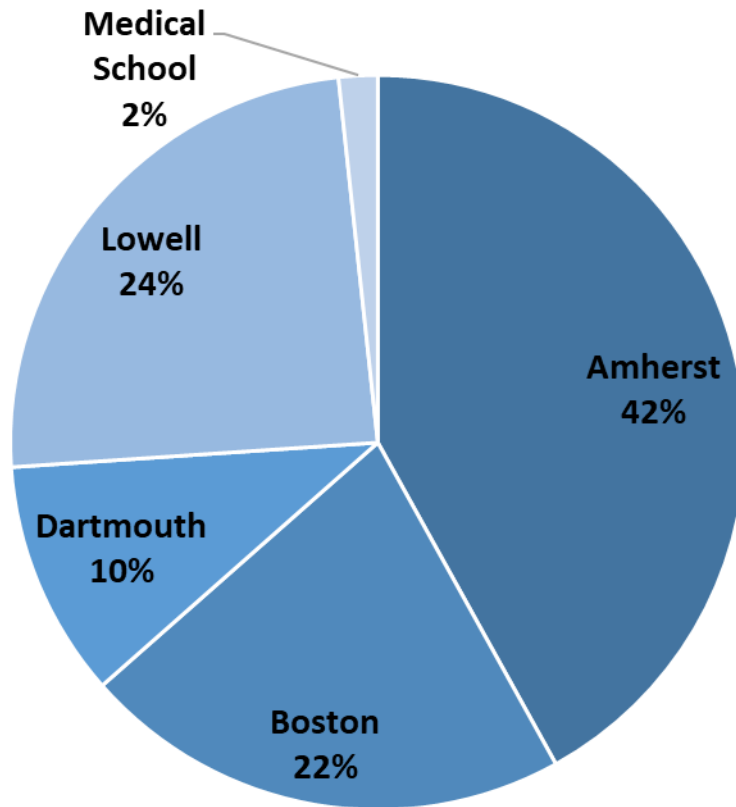
FY21 Expenses By Type



FY21 Expenses By Campus



About UMass: Total Enrollment = 75,431 Students

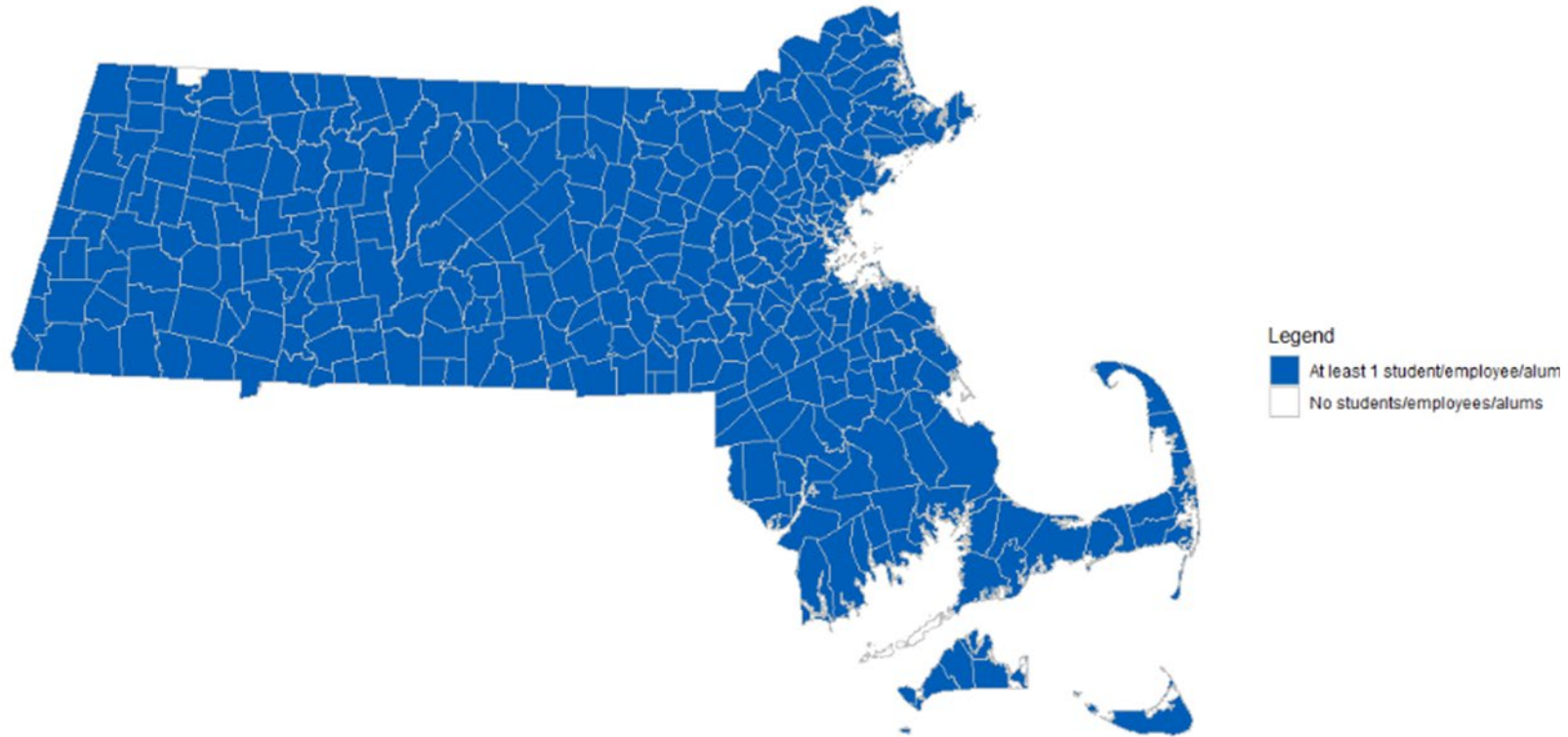


Enrollment in this graph is based upon student headcount. There are 66,070 Student full-time equivalents (FTEs) which are used for the various financial projections used throughout this report.

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 Alumni in the Commonwealth
Representation among the 351 communities



Data: UMass IR Offices, Human Resources, and Office of Advancement Mar 2021

UMass Financial Accountability Framework

- Multi-year financial forecast
- Quarterly financial projections
- Monthly projections if needed
- Scenario planning
- **Real time student tracking**
- Standard FTE reports
- Reserve Policy
- Capital Policy amended

- Key financial ratios
- Peer benchmarks
- A&F Executive Dashboard 1.0
- Trend analysis
- Annual financial report enhanced
- Financial reports on website



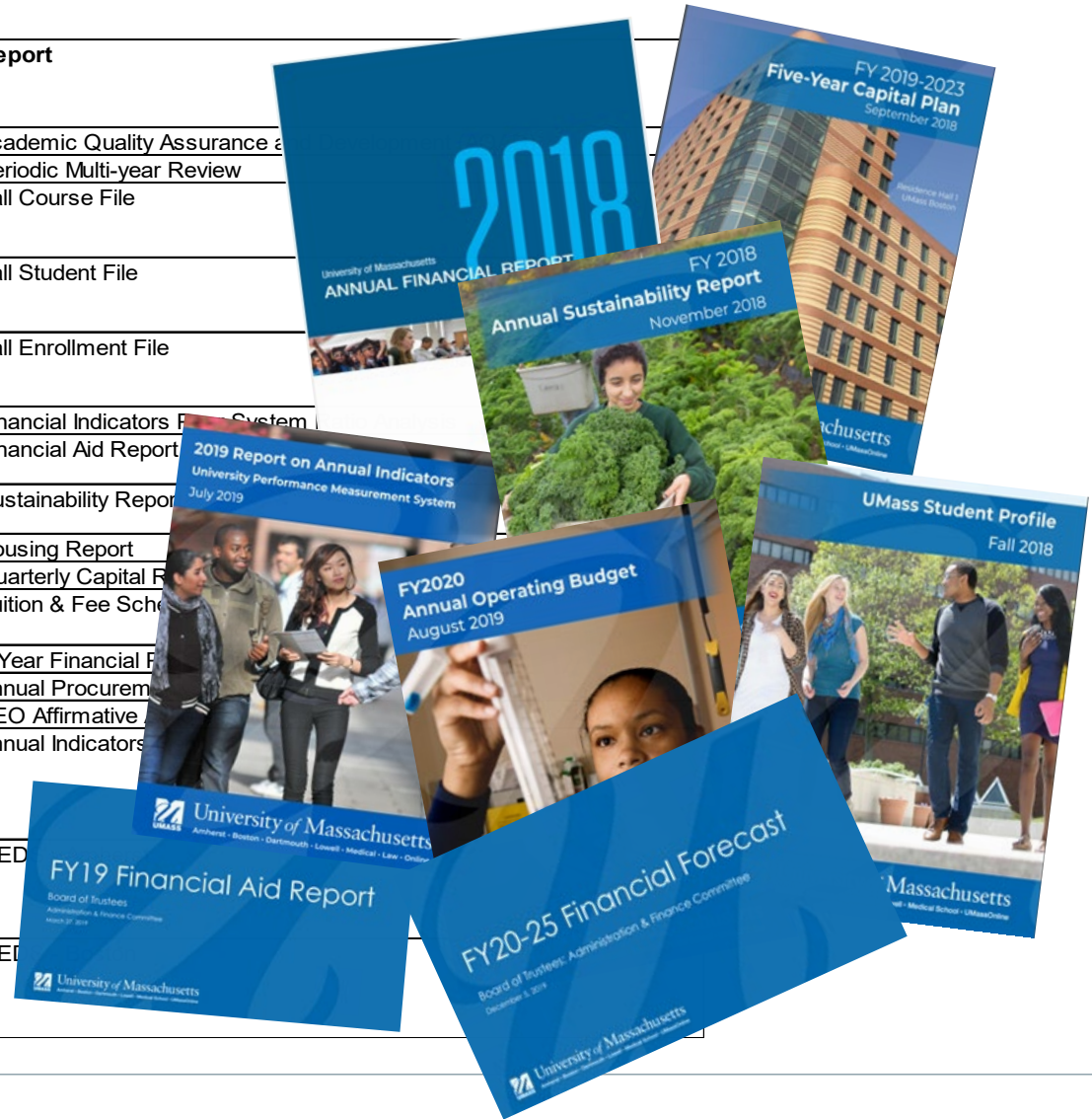
- Quarterly financial close
- Automated year end consolidation
- Unrestricted net asset reporting
- Improved student AR reserve procedure
- Cash flow reporting
- **Cash flow forecasting model**
- Centralized MMARS reporting

- **Active and growing ERM program**
- Engaging multidisciplinary/cross-functional subject matter experts system-wide
- Insurance as a mitigation strategy
- Health and Safety Council
- Travel Registry
- Risk-based decision-making
- **COVID-19 Response**

UMass: Transparent and Accountable

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

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



#2. UMass' Impact on the Commonwealth



University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

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

43,647

Massachusetts jobs
supported every year

10 to 1

Return on state
investment

According to the most recent
Economic Contribution Analysis
in 2016

\$6.2 billion

in annual economic
activity

16,777

Employees
Non-student*

Educating the Massachusetts Workforce

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

18,000

New graduates
every year

320,000

Alumni live in
Massachusetts

83%

of undergraduates
are from
Massachusetts

Educating the Massachusetts Workforce

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

More than

1 in 5

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

3 Times

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

37%

of undergraduates study in STEM fields

Attracting and Developing Talent

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

40%

of undergraduates
are students of
color

153

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, intellectual property, accounting, and business operations.

UMass Core Research

- Throughout the state, UMass offers fee-for-service access to its Research Core Facilities for academic, government and industry users.
- The network of facilities offers cutting-edge instrumentation, methodologies and the expertise of full-time professors, and provides UMass students the opportunity to conduct hands-on research.
- 235 startups and small businesses in 76 Massachusetts cities and towns have benefited from the Massachusetts Innovation voucher program, which provides access to state of the art equipment at the UMass campuses.

Innovation 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 researchers to build world-changing technologies.
- At the NERVE Center, researchers are developing robots that can evaluate their performance, as well as machines that can navigate rough terrain and weather in critical search-and-rescue missions.
- ARMada, at the NERVE Center, researches robotic arms, end effectors, and sensor systems from multiple robotics companies – where UMass researchers help develop test methods to evaluate grasping, collaboration, and assembly capabilities used for industrial automation tasks.

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).

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.

UMMS BRIDGE

- UMMS BRIDGE is a fund for investing in the next generation of impactful innovations at the Medical School.
- The fund provides infusion of up to \$1 million annually to 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.

UMass Serving the Community

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

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

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

UMass Dartmouth: Through America Reads, students tutor children in area schools to ensure they can read independently by third grade.

UMass Lowell: Devotes over 200,000 hours to community service, each year, through projects including volunteering with health agencies and hospitals COVID-19 testing and vaccine administration, making 3D face shields and ear savers for local hospitals, virtual tutoring and programming at local nonprofits for local youth, and providing free consulting and marketing plans to businesses.

UMass Medical School: Through the Martin Luther King Jr. Semester of Service, UMMS provides funding to support student-driven community service projects in Worcester, resulting in over 30 initiatives and thousands of student hours dedicated to improving the community. The program has launched a number of highly successful initiatives including the Worcester Refugee Assistance Project, Farm to Health Center/ Prescriptions for Food Insecurity project, and Kelley Backpacks for foster children.

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

UMass Partnering with Communities to Respond to COVID-19

UMass Is a Critical Partner in Responding to COVID

▪ **Field Hospital Operations**

- UMass Dartmouth partnered with South Coast Health, providing the campus athletic center to serve as a field hospital in Spring 2020
- UMass Lowell partnered with Lowell General Hospital, providing the campus recreation center to serve as a field hospital during Spring 2020 and again in Winter 2020-2021

▪ **Community Testing**

- UMass Amherst continues to provide no-cost asymptomatic surveillance testing for the public

▪ **Vaccination Clinics**

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

UMass Medical School Responding to COVID

- UMass Medical School is supporting vaccine distribution statewide. Our Vaccine Corps has recruited more than 4,500 volunteers.
- Commonwealth Medicine is helping to run Worcester's only large-scale vaccination site which, as of March 11, has administered more than 13,000 shots.
- UMass Medical students are helping to vaccinate vulnerable people and communities including people in shelters and elderly housing, first responders and the homeless.
- Health equity is a major focus of the medical school's efforts. Faculty and students are organizing information sessions to answer questions and address vaccine hesitancy. One of our exceptional physicians, Dr. Mark Johnson, even appears in the state's advertising campaign focused on promoting vaccination, particularly among communities of color.
- On the research front, UMMS has served as lead trial site for the Pfizer vaccine and, now, is part of a clinical trial to test the safety of the Moderna vaccine for teenagers. In addition, through the NIH's RADx program, UMMS and UML researchers are working to develop fast, effective and reliable COVID-19 diagnostics and tests.

UMass Amherst Responding to COVID

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

- Conducting about 20,000 tests per week; +300K to date
- State Grant for Community testing; 53K tests performed
- Utilizing student EMTs, public health students and others to assist in operation and contact tracing



UMass Amherst Responding to COVID

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

- CLIA certified lab opened in fall 2020
- Operating out of Integrated Applied Life Science Center (IALS)
- Increased state capacity to perform tests in addition to Broad Institute; +100K tests done
- Ability to provide CLIA certified testing for state and region post-COVID

Regional Vaccination Clinic

- Designated by state as a regional vaccination clinic in January 2021
- Staffed by nursing students along with University Health Services staff
- 11K vaccinations to date

UMass Boston Responding to COVID

- UMass Boston is partnering with the Medical School on the Vaccination corps initiative
- UMB is pursuing a three-pronged strategy on vaccinations:
 - **UMass Boston vaccination site on campus**
 - **Educating our community.** This includes moving the needle in communities of color with clarifying any and all concerns in said populations on vaccine hesitation matters
 - UMB centers and institutes have been engaged in community outreach/research, including studying vaccine hesitancy in the latinx community
 - Campus stakeholders have begun to develop messaging and a communication strategy to help educate our stakeholders and surrounding community stakeholders
 - **Providing volunteers to the vaccination effort**
- UMB is fielding a stream of requests from local hospitals and community health centers for volunteers. We have ~500 nursing students with the needed skills to volunteer and are developing a plan to train additional nursing students and Exercise & Health Sciences students to assist.

UMass Dartmouth Responding to COVID

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

UMass Lowell Responding to COVID

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

UMass Serving Veterans

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



New VA Community Based Outpatient Clinic currently under construction at the Medical School will open in Fall 2021, and provide top-quality services to veterans throughout the region.

2,200

Veterans are enrolled at UMass

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

UMass has high quality programs for veterans, particularly online.

Best online programs for veterans³:

3

Top 25 ranked
Online Graduate
Business/ MBA
Programs

#2

Ranked Online
Master's in
Criminal Justice
(Lowell)

2

Top 25 ranked
Online
Bachelor's
Programs

#7

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

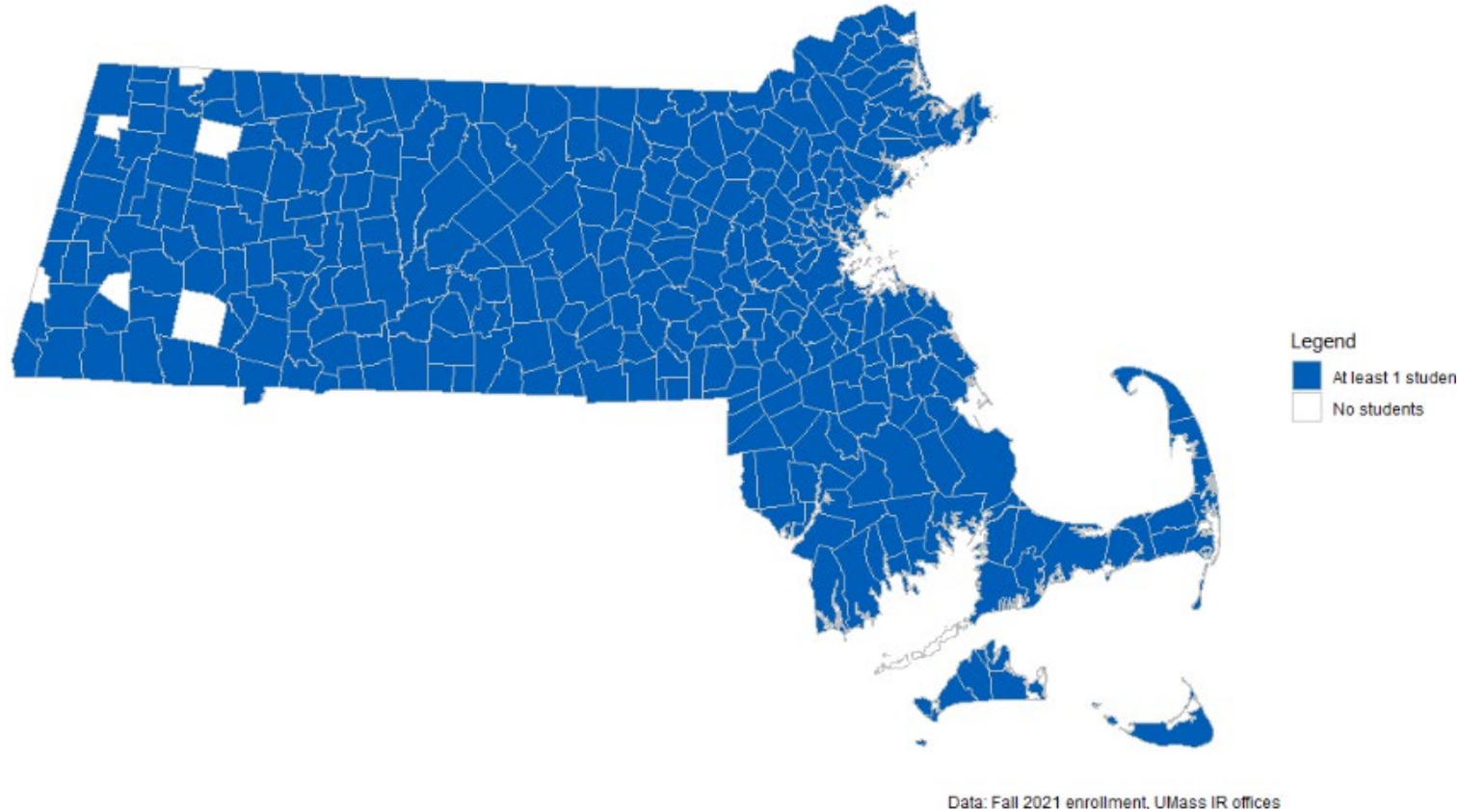
¹ Best Colleges for Veterans by U.S. News and World Report (Amherst, Lowell)

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

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

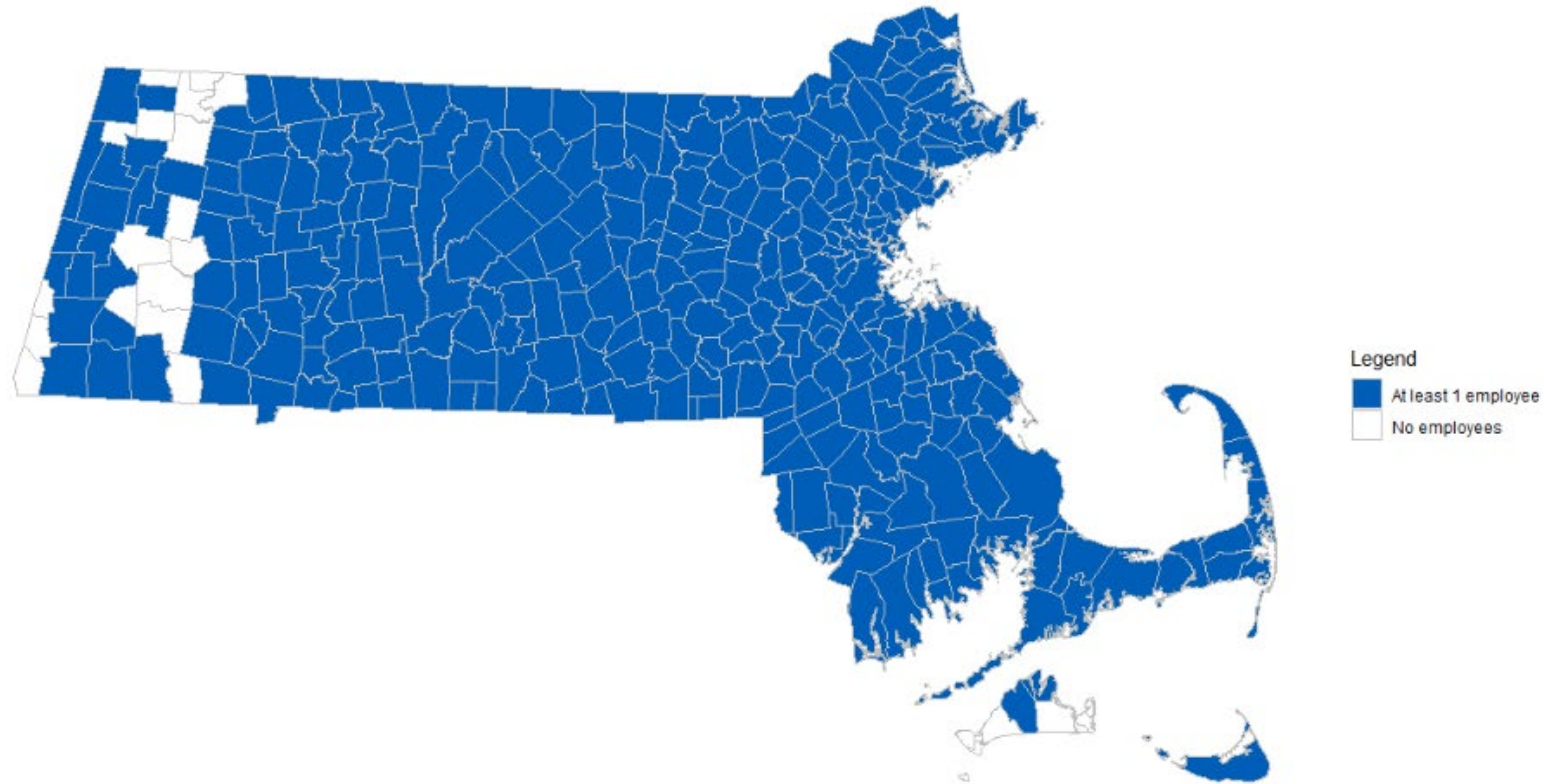
UMass students come from nearly all 351 communities of the Commonwealth

UMass Students in the Commonwealth
Representation among the 351 communities



UMass employees come from over 325 communities of the Commonwealth

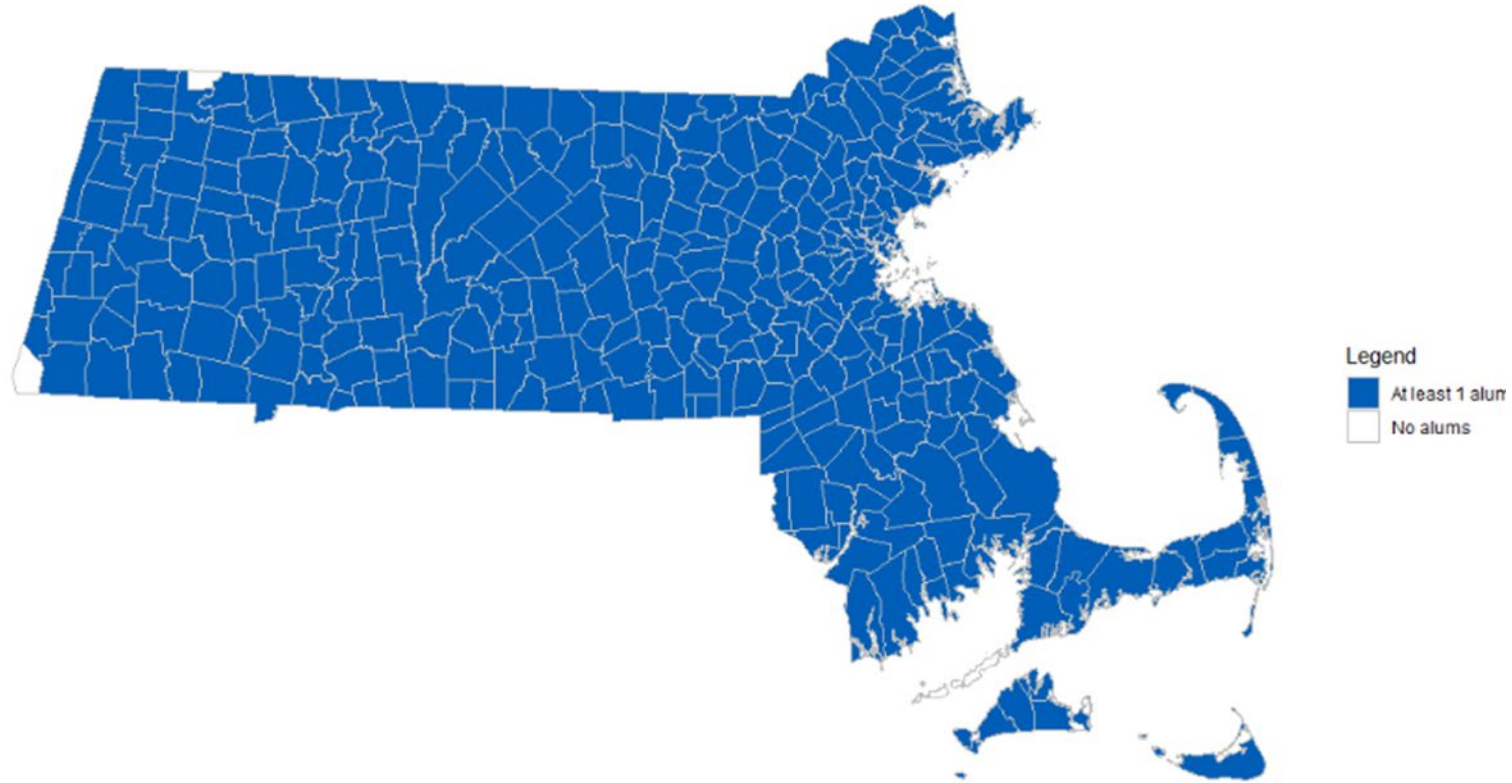
UMass Employees in the Commonwealth
Representation among the 351 communities



Data: Human Resources Feb 2021

UMass alumni live in nearly all 351 communities of the Commonwealth

UMass Alums in the Commonwealth
Representation among the 351 communities



Data: UMass Office of Advancement Mar 2021

Life-Changing Research

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

3rd-largest

Research portfolio in Massachusetts, behind only Harvard and MIT

\$687 million

in annual research & development in FY20

UMass conducts

16%

of all research in Massachusetts

More than 90

core research facilities across the state

More than 50%

Federally funded research

The Economic Impact of Discovery

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

50

Start-up Companies
Launched

2016-2020

Research & Discovery
by the numbers

\$307 million

in licensing income
generated

339

Patents awarded

1,002

Invention
disclosures filed

135

Licenses completed

#3. Admissions & Enrollment



University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

Admissions & Enrollment

What is it?

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

When do we do it?

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

What is included?

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

Why do we do it?

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

Key Links:

- ✓ [Annual Student Profile](#)



UMass Undergraduate Admissions

The system continues to grow in all phases of its admissions funnel, driven largely by gains at Amherst and Lowell.

SYSTEM UNDERGRADUATE ADMISSIONS: FIRST-YEAR STUDENTS

FUNNEL	FALL 2020	Δ VS FALL 2019	Δ VS FALL 2015
APPLICANTS	75.9K	▼ 1.4%	▲ 12.3%
ADMITS	53.8K	▲ 1.7%	▲ 29.4%
ENROLLS	10.6K	▼ 8.2%	▲ 12.9%

UMass Transfer Admissions

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

SYSTEM UNDERGRADUATE ADMISSIONS: TRANSFER STUDENTS

FUNNEL	FALL 2020	Δ VS FALL 2019	Δ VS FALL 2015
APPLICANTS	8.9K	▼ 13.5%	▼ 10.6%
ADMITS	6.9K	▼ 4.7%	▼ 10.8%
ENROLLS	3.7K	▼ 12.4%	▼ 24.4%

UMass Undergraduate Enrollment

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

UNDERGRADUATE ENROLLMENTS			
METRIC	FALL 2020	Δ VS FALL 2019	Δ VS FALL 2015
HEADCOUNT	56.9K	▼ 0.7%	▲ 1.2%
FTE	52.6K	▼ 0.9%	▲ 3.6%

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

UMass Graduate Enrollment

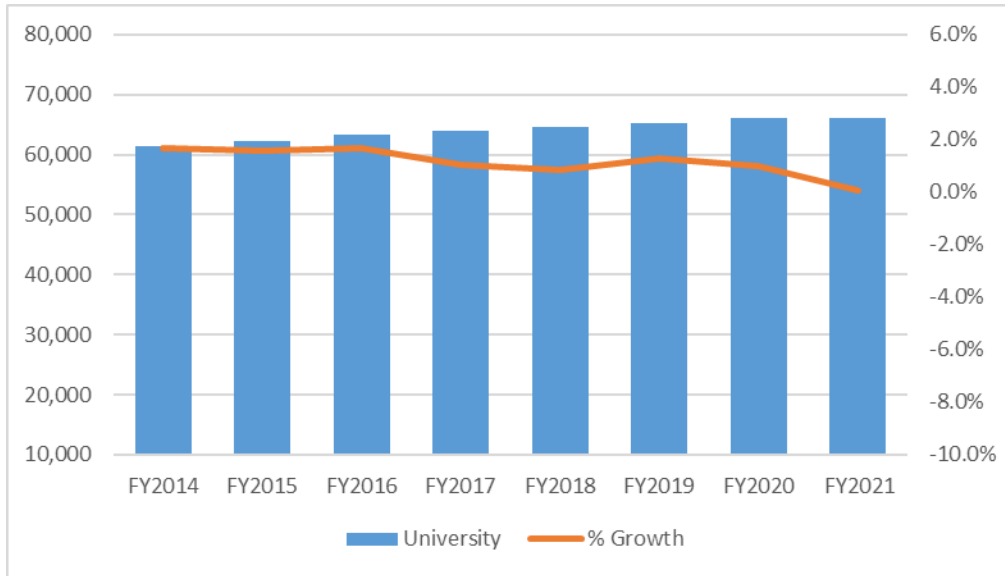
Across the System, graduate enrollments show nominal increases both at the shorter and longer terms.

GRADUATE ENROLLMENTS

METRIC	FALL 2020	Δ VS FALL 2019	Δ VS FALL 2015
HEADCOUNT	18.5K	▲ 4.4%	▲ 5.7%
FTE	13.4K	▲ 4.1%	▲ 7.4%

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

UMass Enrollment Trend



FY21 Enrollment vs FY20
▲ **0.1%**

Students <i>FTEs</i>	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	% Change
Amherst	27,008	27,098	27,696	28,340	28,712	29,051	29,808	29,693	-0.4%
Boston	12,333	12,833	13,195	13,101	13,036	13,213	13,241	13,571	2.5%
Dartmouth	7,866	7,930	7,766	7,558	7,286	7,330	6,971	6,709	-3.8%
Lowell	13,025	13,369	13,620	13,910	14,422	14,601	14,790	14,855	0.4%
Subtotal	60,232	61,230	62,277	62,909	63,456	64,195	64,810	64,828	0.0%
<i>% Growth</i>	1.7%	1.7%	1.7%	1.0%	0.9%	1.2%	1.0%	0.0%	
Medical School	1,104	1,071	1,056	1,070	1,074	1,153	1,195	1,242	3.9%
University	61,336	62,301	63,333	63,979	64,530	65,348	66,005	66,070	0.1%
<i>% Growth</i>	1.7%	1.6%	1.7%	1.0%	0.9%	1.3%	1.0%	0.1%	

Source: Actuals from student profile.

Review: Enrollment by Residency

University

Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
In State	47,575	47,908	48,519	49,364	50,072	50,438
% Change		0.7%	1.3%	1.7%	1.4%	0.7%
Out of State	15,759	16,070	16,011	15,984	15,934	15,633
% Change		2.0%	-0.4%	-0.2%	-0.3%	-1.9%
Total	63,334	63,978	64,530	65,348	66,005	66,070
% Change		1.0%	0.9%	1.3%	1.0%	0.1%

Amherst

Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
In State	19,142	19,665	19,827	20,016	20,743	20,843
% Change		2.7%	0.8%	1.0%	3.6%	0.5%
Out of State	8,555	8,674	8,884	9,034	9,065	8,850
% Change		1.4%	2.4%	1.7%	0.3%	-2.4%
Total	27,697	28,339	28,711	29,051	29,808	29,693
% Change		2.3%	1.3%	1.2%	2.6%	-0.4%

Dartmouth

Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
In State	6,705	6,410	6,211	6,191	5,820	5,599
% Change		-4.4%	-3.1%	-0.3%	-6.0%	-3.8%
Out of State	1,061	1,148	1,075	1,139	1,151	1,111
% Change		8.2%	-6.3%	5.9%	1.1%	-3.5%
Total	7,766	7,558	7,286	7,330	6,971	6,709
% Change		-2.7%	-3.6%	0.6%	-4.9%	-3.8%

Boston

Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
In State	10,254	10,155	10,249	10,576	10,639	11,045
% Change		-1.0%	0.9%	3.2%	0.6%	3.8%
Out of State	2,941	2,946	2,788	2,637	2,602	2,526
% Change		0.2%	-5.4%	-5.4%	-1.3%	-2.9%
Total	13,195	13,101	13,036	13,213	13,241	13,571
% Change		-0.7%	-0.5%	1.4%	0.2%	2.5%

Lowell

Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
In State	10,686	10,890	11,465	11,792	12,080	12,138
% Change		1.9%	5.3%	2.9%	2.4%	0.5%
Out of State	2,935	3,020	2,959	2,809	2,711	2,717
% Change		2.9%	-2.0%	-5.0%	-3.5%	0.2%
Total	13,620	13,910	14,423	14,601	14,790	14,855
% Change		2.1%	3.7%	1.2%	1.3%	0.4%

Review: Enrollment by Degree Path

University Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Undergraduate	47,525	47,720	48,298	49,356	50,014	49,262
% Change		0.4%	1.2%	2.2%	1.3%	-1.5%
Graduate	8,861	8,962	9,076	9,036	9,000	8,973
% Change		1.1%	1.3%	-0.4%	-0.4%	-0.3%
Continuing Ed	2,337	2,371	2,160	1,808	1,286	1,205
% Change		1.5%	-8.9%	-16.3%	-28.9%	-6.3%
Online Only	4,441	4,768	4,812	4,949	5,460	6,302
% Change		7.4%	0.9%	2.8%	10.3%	15.4%
Law School	170	157	184	199	246	328
% Change		-7.6%	16.7%	8.4%	23.7%	33.2%
Total	63,334	63,978	64,530	65,348	66,005	66,070
% Change		1.0%	0.9%	1.3%	1.0%	0.1%

Amherst Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Undergraduate	22,169	22,588	22,643	22,945	23,680	23,430
% Change		1.9%	0.2%	1.3%	3.2%	-1.1%
Graduate	3,417	3,496	3,708	3,772	3,736	3,648
% Change		2.3%	6.1%	1.7%	-0.9%	-2.4%
Continuing Ed	464	428	472	417	313	250
% Change		-7.7%	10.2%	-11.8%	-24.8%	-20.1%
Online Only	1,647	1,827	1,888	1,917	2,079	2,365
% Change		10.9%	3.4%	1.5%	8.4%	13.8%
Total	27,697	28,339	28,711	29,051	29,808	29,693
% Change		2.3%	1.3%	1.2%	2.6%	-0.4%

Boston Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Undergraduate	9,657	9,529	9,835	10,256	10,280	10,342
% Change		-1.3%	3.2%	4.3%	0.2%	0.6%
Graduate	1,876	1,816	1,802	1,714	1,771	1,783
% Change		-3.2%	-0.8%	-4.9%	3.3%	0.7%
Continuing Ed	829	939	697	715	419	599
% Change		13.3%	-25.8%	2.6%	-41.3%	42.8%
Online Only	833	818	703	528	769	847
% Change		-1.8%	-14.0%	-24.9%	45.7%	10.1%
Total	13,195	13,101	13,036	13,213	13,241	13,571
% Change		-0.7%	-0.5%	1.4%	0.2%	2.5%

Dartmouth Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Undergraduate	6,149	5,861	5,582	5,600	5,261	4,993
% Change		-4.7%	-4.8%	0.3%	-6.1%	-5.1%
Graduate	755	763	698	594	536	579
% Change		1.1%	-8.5%	-14.9%	-9.8%	8.1%
Continuing Ed	429	436	508	391	279	120
% Change		1.6%	16.3%	-23.0%	-28.6%	-57.1%
Online Only	263	340	315	546	649	689
% Change		29.2%	-7.3%	73.3%	18.9%	6.2%
Law School	170	157	184	199	246	328
% Change		-7.6%	16.7%	8.4%	23.6%	33.2%
Total	7,766	7,558	7,286	7,330	6,971	6,709
% Change		-2.7%	-3.6%	0.6%	-4.9%	-3.8%

Lowell Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Undergraduate	9,550	9,742	10,239	10,555	10,792	10,497
% Change		2.0%	5.1%	3.1%	2.2%	-2.7%
Graduate	1,757	1,817	1,794	1,804	1,761	1,721
% Change		3.4%	-1.3%	0.6%	-2.4%	-2.3%
Continuing Ed	614	567	484	285	274	236
% Change		-7.7%	-14.6%	-41.1%	-3.9%	-13.9%
Online Only	1,699	1,784	1,906	1,957	1,963	2,401
% Change		5.0%	6.8%	2.7%	0.3%	22.3%
Total	13,620	13,910	14,423	14,601	14,790	14,855
% Change		2.1%	3.7%	1.2%	1.3%	0.4%

Review: Undergraduate Enrollment by New & Continuing

Amherst		Actual				
Undergraduate (FTEs)	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
New	6,100	6,184	6,182	6,535	7,284	6,419
% Change		1.4%	-0.0%	5.7%	11.5%	-11.9%
Continuing	16,069	16,404	16,461	16,411	16,396	17,010
% Change		2.1%	0.3%	-0.3%	-0.1%	3.7%
Undergraduate Total	22,169	22,588	22,643	22,945	23,680	23,429
% Change		1.9%	0.2%	1.3%	3.2%	-1.1%

Boston		Actual				
Undergraduate (FTEs)	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
New	2,695	2,612	2,995	3,344	3,244	3,076
% Change		-3.1%	14.7%	11.6%	-3.0%	-5.2%
Continuing	6,962	6,917	6,838	6,912	7,036	7,266
% Change		-0.6%	-1.1%	1.1%	1.8%	3.3%
Undergraduate Total	9,657	9,529	9,834	10,256	10,280	10,342
% Change		-1.3%	3.2%	4.3%	0.2%	0.6%

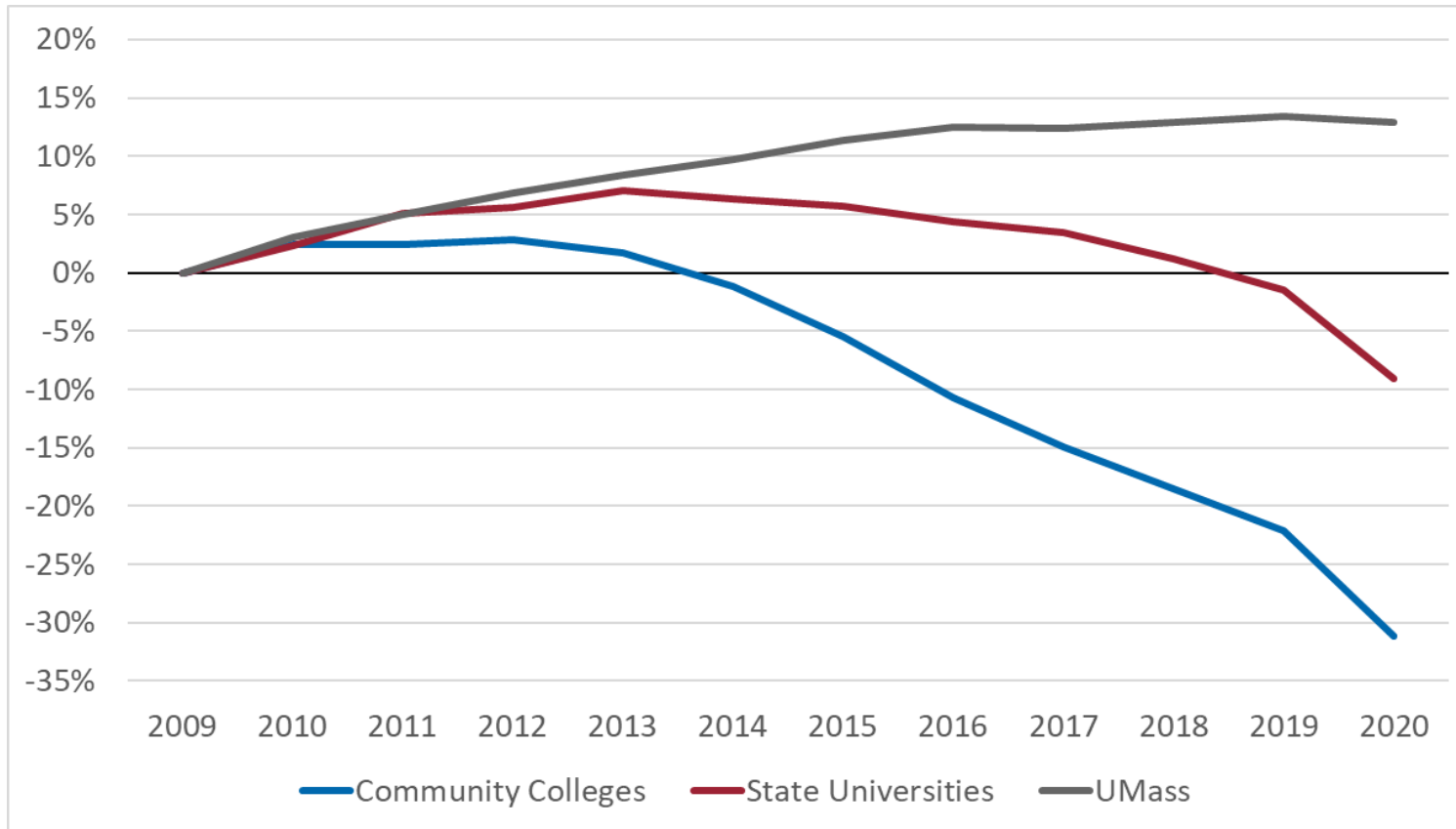
University		Actual				
Undergraduate (FTEs)	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
New	13,273	13,132	13,709	14,741	15,472	13,873
% Change		-1.1%	4.4%	7.5%	5.0%	-10.3%
Continuing	34,253	34,588	34,590	34,616	34,541	35,388
% Change		1.0%	0.0%	0.1%	-0.2%	2.5%
Undergraduate Total	47,526	47,720	48,298	49,356	50,013	49,260
% Change		0.4%	1.2%	2.2%	1.3%	-1.5%

Dartmouth		Actual				
Undergraduate (FTEs)	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
New	1,774	1,663	1,647	1,833	1,721	1,533
% Change		-6.2%	-1.0%	11.3%	-6.1%	-10.9%
Continuing	4,375	4,198	3,934	3,767	3,540	3,461
% Change		-4.0%	-6.3%	-4.3%	-6.0%	-2.2%
Undergraduate Total	6,149	5,861	5,582	5,600	5,261	4,993
% Change		-4.7%	-4.8%	0.3%	-6.1%	-5.1%

Lowell		Actual				
Undergraduate (FTEs)	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
New	2,704	2,673	2,884	3,029	3,223	2,845
% Change		-1.1%	7.9%	5.0%	6.4%	-11.7%
Continuing	6,847	7,069	7,356	7,526	7,569	7,651
% Change		3.2%	4.1%	2.3%	0.6%	1.1%
Undergraduate Total	9,551	9,742	10,240	10,555	10,792	10,496
% Change		2.0%	5.1%	3.1%	2.2%	-2.7%

Massachusetts Higher Education Enrollments

UMass, State Universities & Community Colleges: Cumulative Percent Change in Headcount Enrollment: 2009-2020



UMass:

Cumulative Percent Change: **12.9%**
Average Annual Percent Change: **1.1%**

State Universities:

Cumulative Percent Change: **-9.1%**
Average Annual Percent Change: **-0.8%**

Community Colleges:

Cumulative Percent Change: **-31.2%**
Average Annual Percent Change: **-3.3%**

#4. FY20 Financial Results & FY21 Budget



University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

UMass Finances: by the Numbers

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



\$3.3 billion annual FY21 budget



\$560 million in state appropriation
(not including fringe)



75,000+ students by headcount &
18,000 new graduates annually



\$148 million average
monthly payroll



\$351 million in UMass
funded financial aid



\$137 million average monthly
spend with over **17,000** vendors



\$687 million in annual research &
development



24,000 employees,
3rd largest employer in MA

FY20 Financial Results

FY20 Financial Key Take-Aways

\$ in Thousands

Campus	FY2020 ACTUAL			
	Total Revenue	Total Expenses	OM\$	OM %
Amherst	1,331,644	1,329,105	2,539	0.2%
Boston	444,014	438,957	5,057	1.1%
Dartmouth	251,531	251,450	81	0.0%
Lowell	480,544	483,244	(2,700)	-0.6% (2)
President's Office	117,375	112,584	4,791	4.1%
Subtotal	2,625,108	2,615,340	9,768	0.4%
Medical School	919,648	891,942	27,706	3.0%
Total (1)(3)	3,462,090	3,424,616	37,474	1.1%

(1) Total expenses does not include GASB 68 (pensions) or GASB 75 (other post employment benefits)

(2) A portion of the OM loss in the amount of (\$1,900) resulted from a miscalculation by UMBA related to the mid-year refunding. Increased capital expenditures related to research resulted in an unforeseen increase in depreciation expense

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

- Impacts of COVID-19 in the last quarter of the fiscal year required active management and solutions implementation to end the year in balance
- Year end operating surplus of:
 - **\$9.8 million, or 0.4%** without Medical School
 - **\$37.5 million or 1.1%** with Medical School
 - **(\$84.5) million or -2.4%** with postemployment benefits (health & pension)

FY21 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)

- ✓ **Because of unique nature of FY21, preliminary budget approved July 2020, revision made in September 2020**
- ✓ **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:

- ✓ [FY21 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

FY21 Budget Planning

March / April:

- Fully remote operations
- Year-end deficit ~\$25M
- Spending restrictions & liquidity monitored

July:

- Initial FY21 gap \$264M; plan developed
- In state Undergraduate tuition frozen
- *Fall operations* partially remote

October / November:

- Bond ratings affirmed
- New spring operating plans proposed
- State budget level funding
- Line of credit legislation adopted



May / June:

- R&B adjustments \$65M
- Multiple FY21 scenarios
- Fall admissions tracking
- CARES Act funds available

September:

- Updated enrollment
- *Fall operations* fully remote
- FY21 gap reassessed \$335M; revised plan

December:

- Actively managing FY21 plan
- Q1 undergraduate campuses negative (\$7M)
- Begin FY22 scenario planning

Prudent Measures Sustain UMass through Pandemic

- Pre-COVID, Board's directive for enhanced fiscal policies and positive margins strengthened by efficiency and effectiveness efforts
- FY20 required epic coordination with limited information, timely and tough decisions and CARES Act revenue to end the year positive
- Continued budget management for FY21 and beyond
 - Analysis and adjustments will continue to ensure a balanced budget and preserve operating liquidity at or near benchmark of three months
 - Preserving reserves protects the University's long-term fiscal health
 - FY22 requires careful scenario planning
- Approach will position UMass to survive the pandemic & thrive when the economy recovers

FY21 Budget: September Update

FY21 Adjusted Budget

- Shortfall of \$335M in FY21; over 10% of total budget
- Adjusted budget totals \$3.3B; 6.2% or \$215M below FY20
- Enrollment flat to prior year; improves from budgeted assumption
- \$291M in reductions needed
- Total staff reduction of 16% (temporary and permanent)
- ~\$26M in additional costs to manage pandemic

Significant Uncertainty Exists

- Spring operations: unknown; may result in further revenue losses from plan
- Federal Stimulus: uncertain amount and timing
- State Appropriation: possibility of deep cuts as in prior recessions
- Pandemic: “second wave” of pandemic unknown
- Duration: revenue impacts extend beyond FY21

Financial Sustainability

- Financial management and monitoring are critical
- Urgency to implement all spending solutions for a balanced budget
- To preserve operating liquidity, expense reductions are required
- Depleting reserves would leave the University defenseless in the future
- Position UMass to thrive when the economy recovers

Overview of Changes Since September

Significant adjustments do not impact the overall financial plan for FY21.

Upside

State Level Funding

 **\$76M**

Enrollment

 **\$21M**

 **\$97M**

Downside

Housing & Dining

 **\$80M**

COVID Expenses

 **\$19M**

 **\$98M**

FY21 Q1 Projection

(\$ in Thousands)

FY21: Budget

(9/22/2020 - Board of Trustees)

FY21: Q1 Projection

(12/9/2020 – Board of Trustees)

Projection

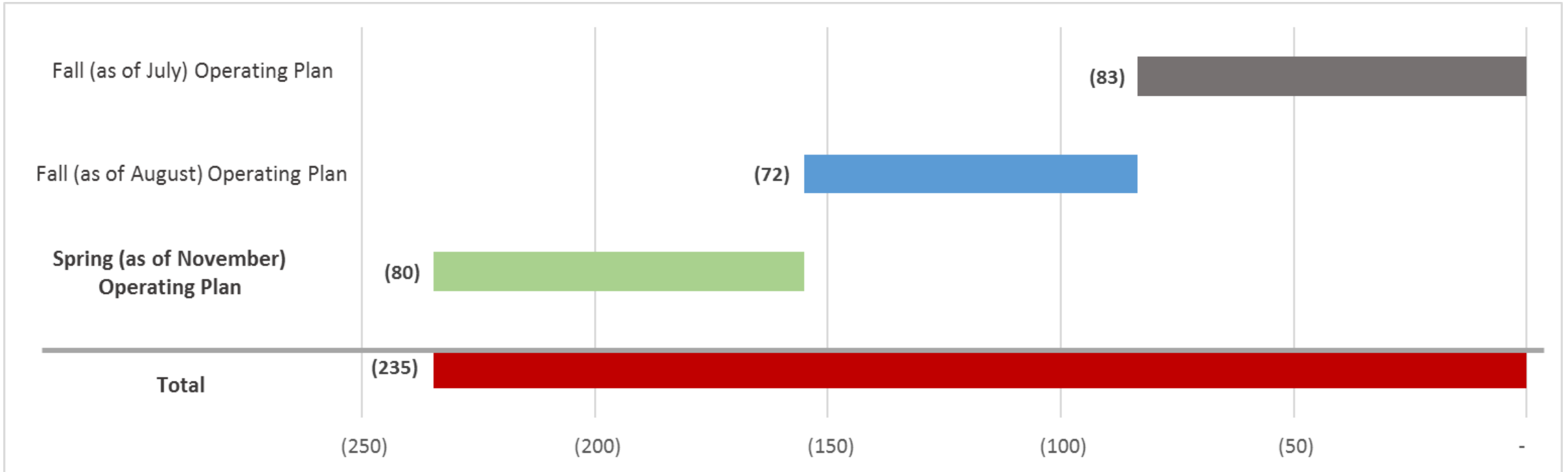
Vs. Budget

Campus	Total		Total		Total		Total		OM \$ Change
	Revenue	Expenses	OM\$	OM%	Revenue	Expenses	OM\$	OM%	
Amherst	1,240,902	1,251,202	(10,300)	-0.8%	1,219,778	1,230,895	(11,117)	-0.9%	(816)
Boston	406,953	406,953	0	0.0%	435,663	430,455	5,208	1.2%	5,208
Dartmouth	226,726	226,726	0	0.0%	228,803	228,734	69	0.0%	69
Lowell	429,850	429,850	0	0.0%	438,864	440,607	(1,743)	-0.4%	(1,743)
President's Office	121,566	121,566	0	0.0%	98,770	98,195	575	0.6%	575
Subtotal	2,344,340	2,354,640	(10,300)	-0.4%	2,340,219	2,347,229	(7,008)	-0.3%	3,292
Medical School	920,433	915,381	5,052	0.5%	1,029,250	1,008,615	20,635	2.0%	15,583
Total (1)	3,264,773	3,270,021	(5,248)	-0.2%	3,369,469	3,355,844	13,627	0.4%	18,875

(1) Does not include impacts of GASB 68 & 75

FY21 Campus Revenue COVID Impacts

- Auxiliary revenue (housing and dining) impact of **\$235 million or 53%**



Budget Solutions

\$447 million in solutions identified to meet budget

- **Revenue solutions: \$139 million**

- Including level funded state appropriation, better than budgeted tuition revenue, federal stimulus, Medical School independent business lines, and grant revenue

- **Workforce solutions: \$170 million**

- Including unfilled vacant positions, reductions to overtime, mandatory vacation usage, voluntary separation incentive program (VSIP), salary reductions, furloughs, and layoffs

- **Non-Personnel solutions: \$138 million**

- Including restricting spending to only critical needs, debt refinancing, capital plan curtailment, utility and lease reviews, and cost savings from implementation of Unified Procurement Services Team (UPST)

FY22 State Budget Request

<i>\$ in Thousands</i>		FY21 GAA	FY22 Request	\$ Change	% Change
7100-0200	Baseline:	560,455			
	<i>FY20 + CPI</i>		6,725		
	<i>Financial Aid</i>		17,000		
	<i>Student Mental Health Services</i>		4,000		4.9%
	Subtotal:	588,180		27,725	
	COVID-19 Pandemic:				
	<i>COVID Related Expenses</i>		27,000	27,000	4.8%
	Total FY22 Request:	615,180		54,725	10%

- Financial Aid –the University invests over \$350 million of its own resources into “free” aid to students and on average increases it by 4.5% annually.
- Student Mental Health Services – Campuses invest more than \$14.3 million in support of crisis services, therapy, assessing learning disorders, sexual assault and substance abuse services, among many other specialty needs; the additional \$4 million will help mitigate the growing need.
- COVID Expenses – COVID related expenses are estimated to be \$27 million in support of testing, PPE and other health and safety measures.

Management Strategy

- **Solutions:** Continue to monitor solutions in real time; make adjustments based on the best available information; develop additional solutions to ensure a balanced budget
- **Federal & State Funding:** Continued advocacy with the State & Federal leaders
- **Spring Enrollment:** Tracked to budget
- **Communication:** Continue stakeholder updates, including but not limited to, union leadership, legislative leaders, and A&F
- **Evaluate Changes:** Monthly updates from Chancellors; Q2 projection will assess changes
- **FY22 Budget Planning:** Assessing major assumptions; tracking fall admissions

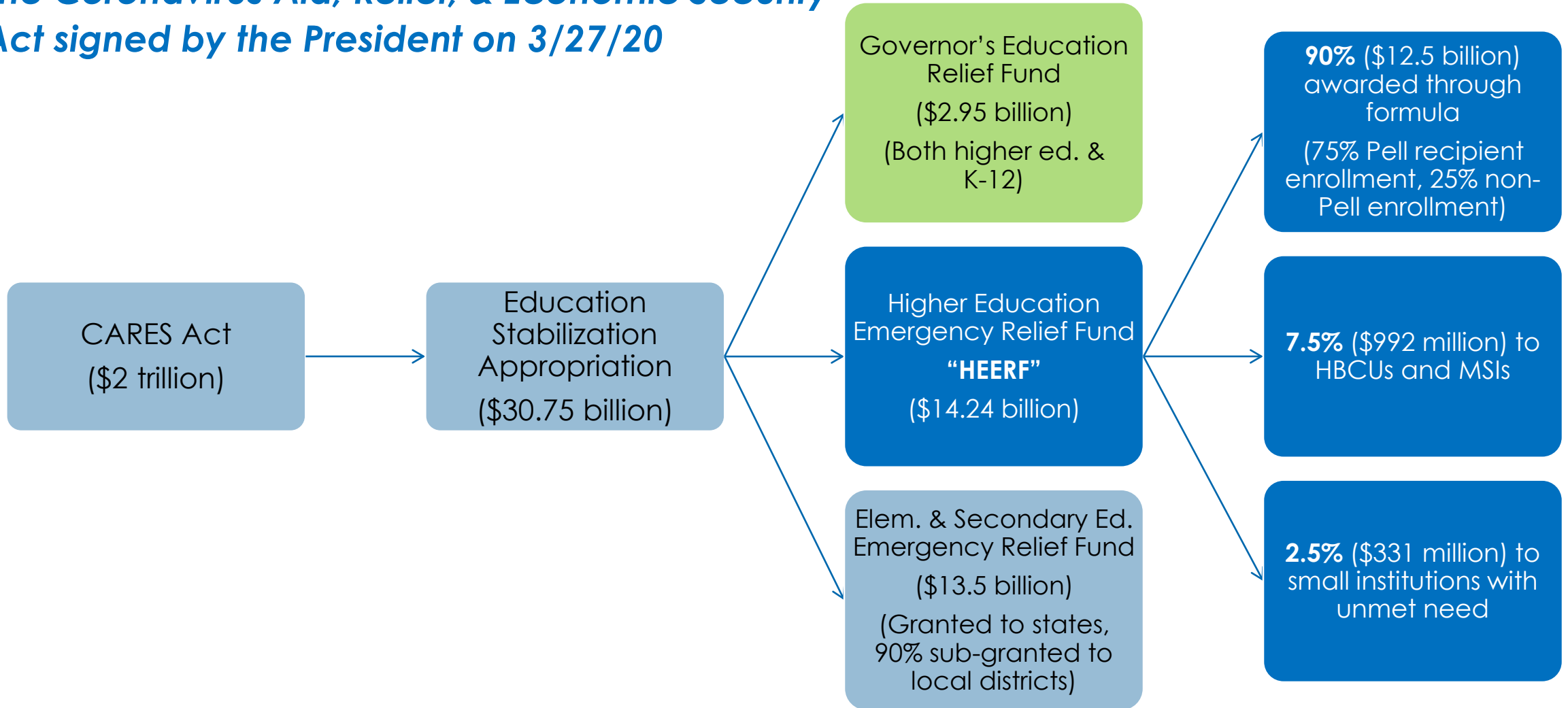
Federal Stimulus

Federal Stimulus to Support Post-COVID Operating Plans

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

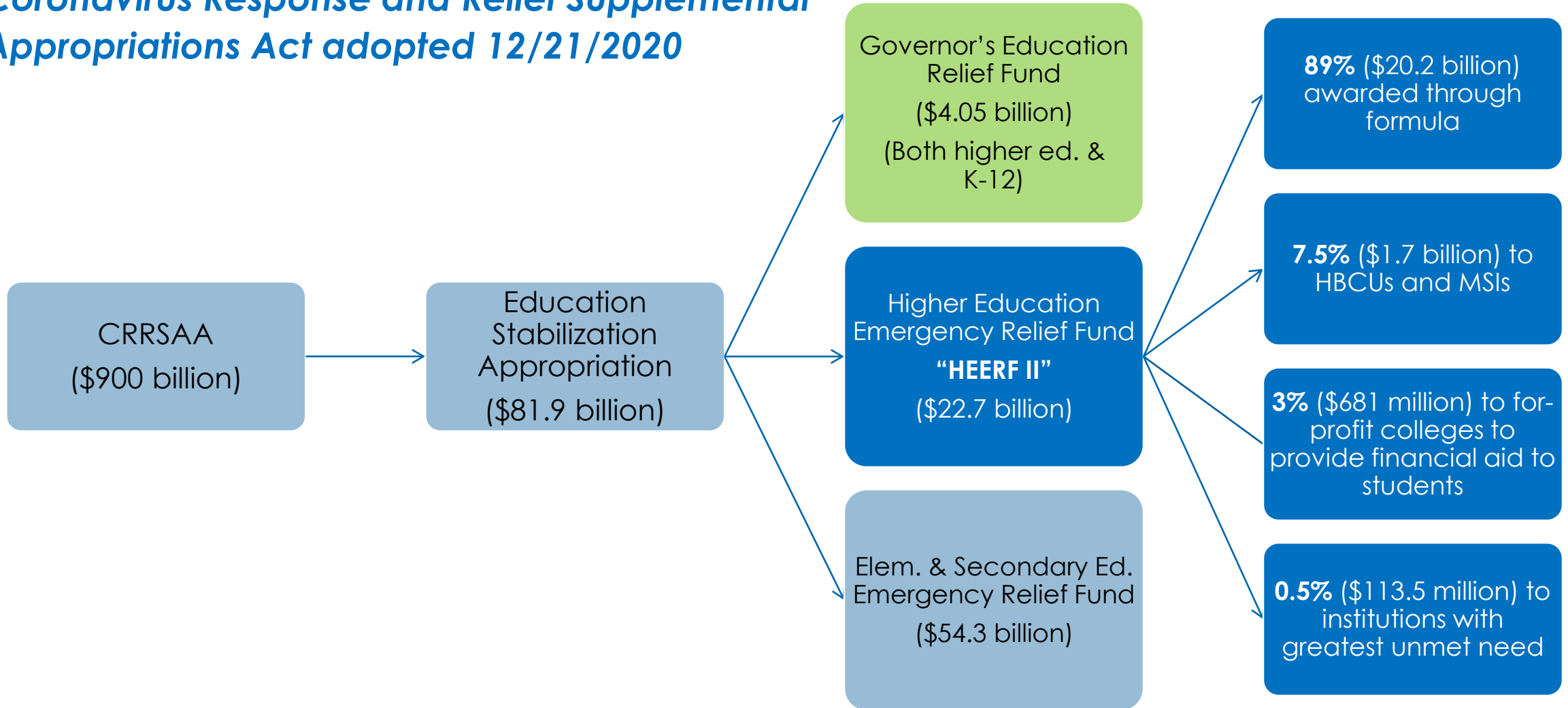
CARES Act Funding for Higher Education

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



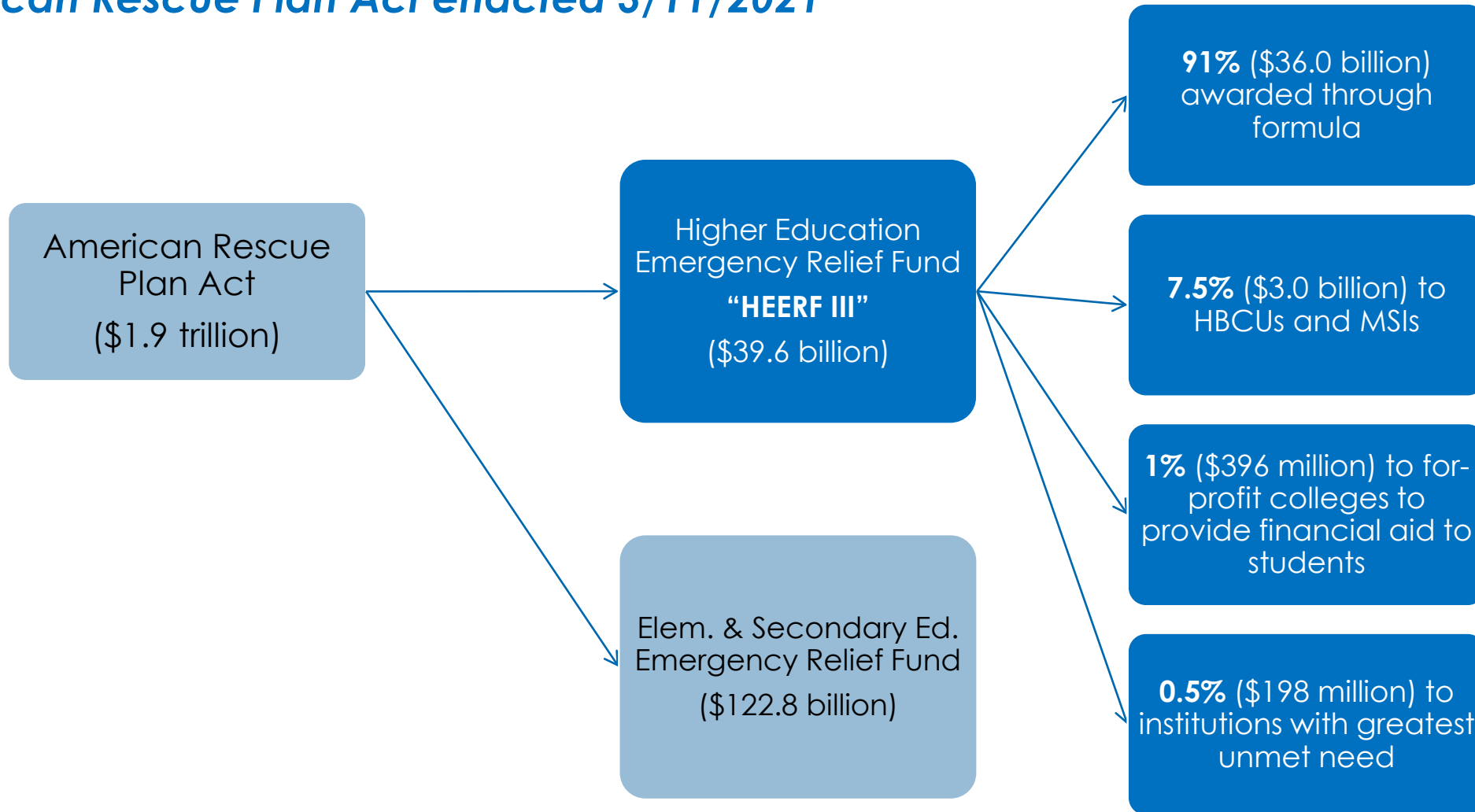
CRRSAA “HEERF II” Funding for Higher Education

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



ARPA “HEERF III” Funding for Higher Education

American Rescue Plan Act enacted 3/11/2021



Federal Stimulus

- **CARES Act** funds available April 2020
 - \$23 million in direct aid to students
 - \$23.6 million institutional allocation (includes HBU/MSI funds)
 - \$3 million passed thru from state
- FY20: \$13.9 million of institutional aid used to mitigate projected deficit
- FY21:
 - \$6.3 million projected; \$3.4 million balance at Boston as eligible expenses are assessed
 - \$3 million projected for GEER funds allocated by state

- **HEERF II** funds available beginning mid-January thru end of calendar 2021
 - \$23 million in direct aid to students
 - \$53 million institutional allocation
 - \$TBD million passed thru from state
- Campus planning efforts: for use as “bridge” funding in both FY21 & FY22 until other revenue sources rebound

- **HEERF III** funds contained in American Rescue Plan Act enacted March 2021
- Analysis in progress to understand limitations and inform planning process

CARES Act Funds			
<i>(\$ in Thousands)</i>			
Campus	Student Aid	Institutional Allocation	Total
Amherst	9,168	9,168	18,336
Boston	6,092	6,092	12,184
Dartmouth	3,144	3,144	6,288
Lowell	4,450	4,450	8,900
Medical School	155	155	310
Total	23,009	23,009	46,018

HEERF II Allocation (available)			
<i>(\$ in Thousands)</i>			
Campus	Student Aid	Institutional Allocation	Total
Amherst	9,168	18,984	28,152
Boston	6,092	15,289	21,381
Dartmouth	3,144	7,333	10,477
Lowell	4,450	11,031	15,481
Medical School	155	280	435
Total	23,009	52,916	75,925

CARES Act GEER Funds			
<i>(\$ in Thousands)</i>			
Campus	Student Aid	Institutional Allocation	Total
Amherst	-	1,048	1,048
Boston	-	890	890
Dartmouth	-	492	492
Lowell	-	609	609
Total	-	3,038	3,038

HEERF III Allocation (pending)*			
<i>(\$ in Thousands)</i>			
Campus	Student Aid	Institutional Allocation	Total
Amherst	25,367	24,566	49,933
Boston	18,839	18,508	37,347
Dartmouth	9,439	9,055	18,494
Lowell	14,167	13,240	27,407
Medical School	216	216	432
Total	68,028	65,584	133,612

#5. Multi-Year Review & Financial Forecast

FY16-26



University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline



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:

- ✓ [FY20-25 Forecast](#)

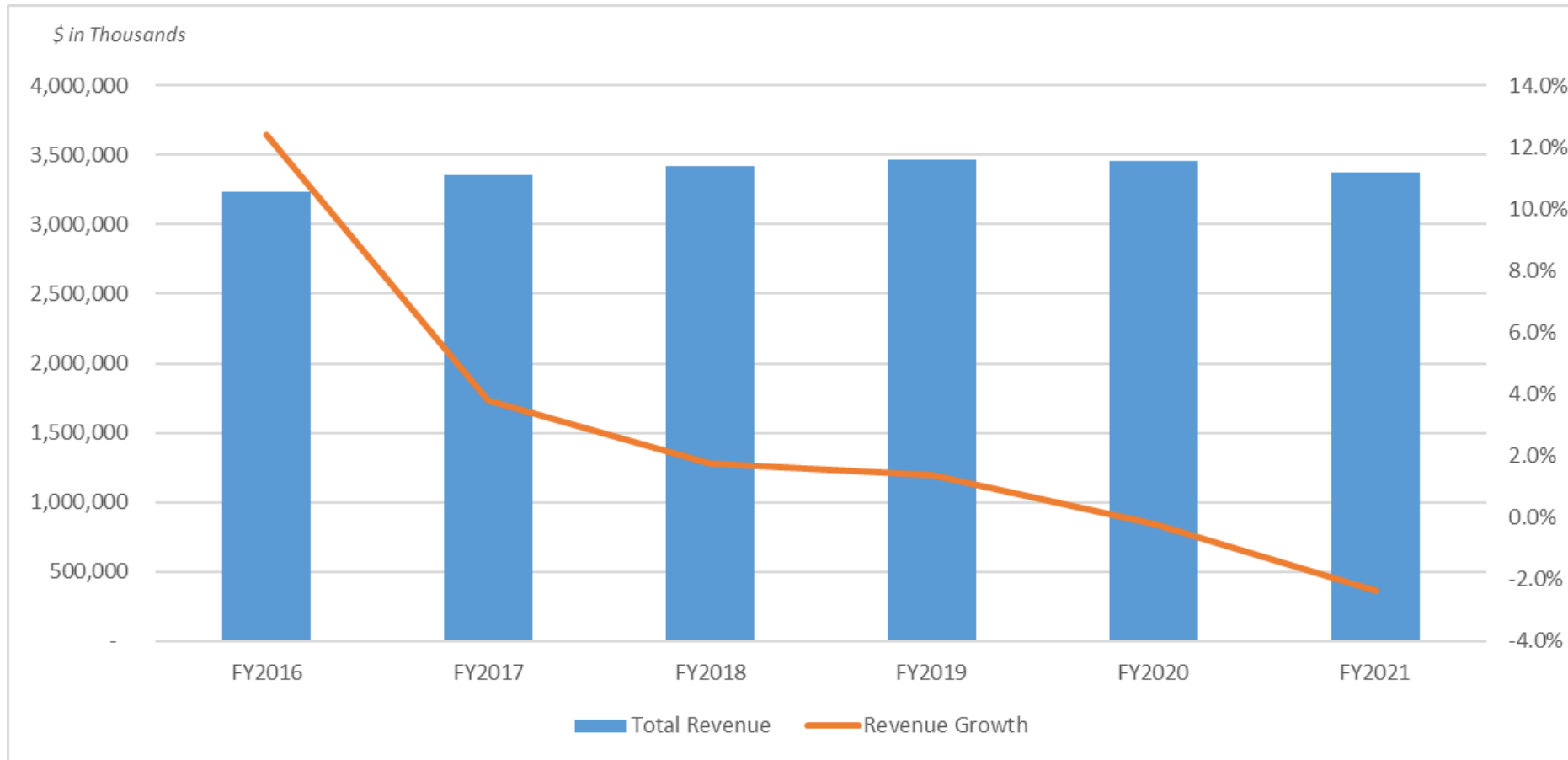


FY2021-2026 Financial Forecast

- Due to the unique nature of FY2021, all efforts have been focused on managing the current year budget
- Significant uncertainty remains in developing a multi-year financial forecast
- To ensure the most accurate projection, a revised multi-year financial forecast will be developed and presented at the June 2021 Board of Trustees meeting
- In this report, a five-year review of UMass' finances is included
- **An addendum to this report will be filed following the June 2021 UMass Board of Trustees meeting laying out the next five years' financial forecast**

Revenue

University Revenue: Annual Changes



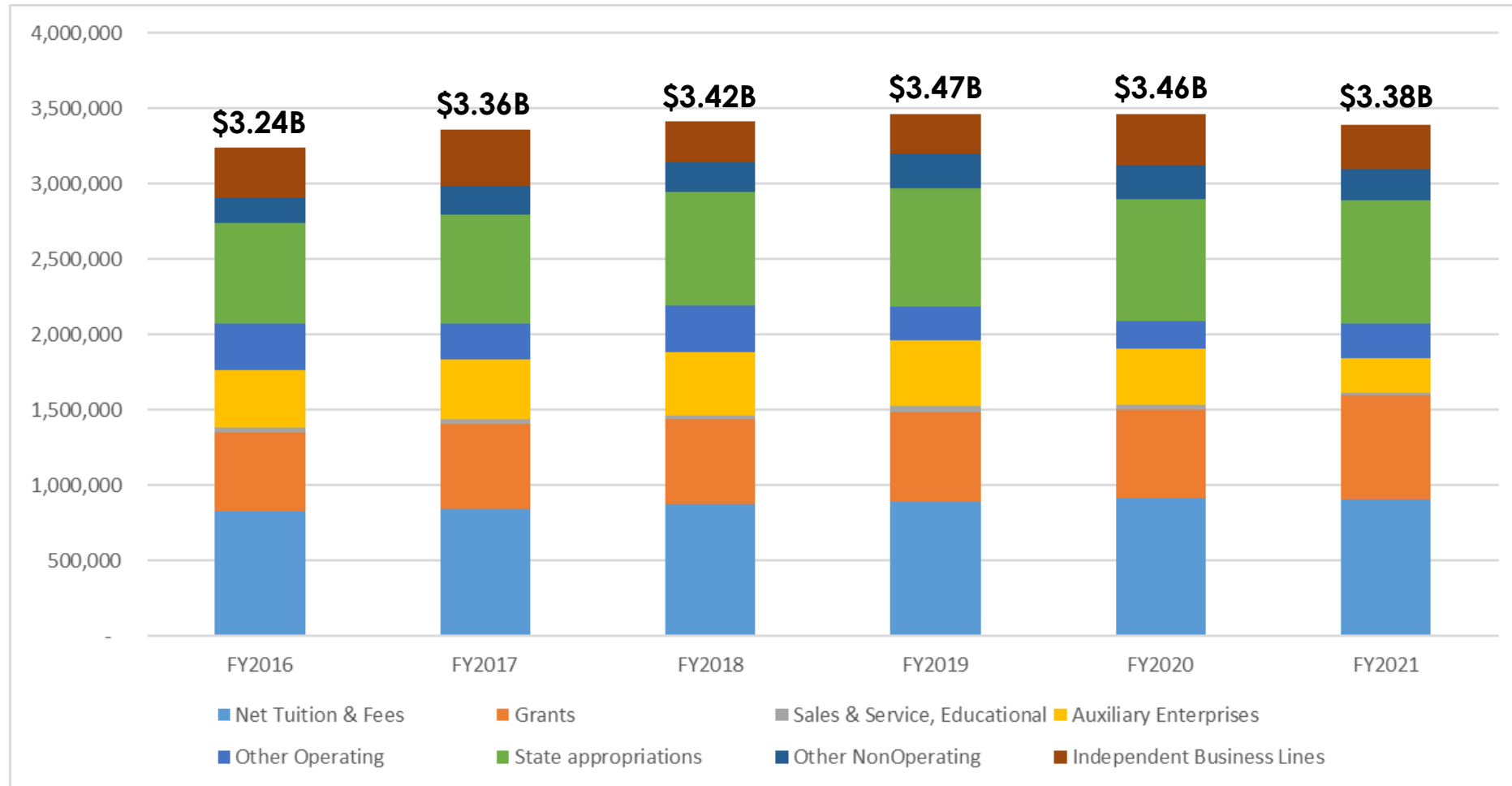
An addendum to this report will be filed following the June 2021 UMass Board of Trustees meeting laying out the next five years' financial forecast

University Revenue: by Category

\$ in Thousands	Actual					Budget	Q1 Projection
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Gross Tuition & Fees	1,070,841	1,136,540	1,185,826	1,223,734	1,260,906	1,230,609	1,246,993
<i>Gross Tuition & Fees Growth</i>	8.5%	6.1%	4.3%	3.2%	3.0%	-2.4%	-1.1%
Tuition Discounts	(244,025)	(288,708)	(311,000)	(328,830)	(343,030)	(338,615)	(345,056)
<i>Tuition Discounts Growth</i>	9.8%	18.3%	7.7%	5.7%	4.3%	-1.3%	0.6%
Net Tuition & Fees	826,816	847,832	874,825	894,904	917,876	891,994	907,706
<i>Net Tuition & Fees Growth</i>	8.0%	2.5%	3.2%	2.3%	2.6%	-2.8%	-1.1%
Grants	528,352	560,081	560,990	593,086	581,849	596,624	692,732
<i>Grants Growth</i>	3.4%	6.0%	0.2%	5.7%	-1.9%	2.5%	19.1%
Sales & Service, Educational	27,500	28,910	30,591	34,984	31,248	19,555	19,270
<i>Sales & Service, Educational Growth</i>	7.4%	5.1%	5.8%	14.4%	-10.7%	-37.4%	-38.3%
Auxiliary Enterprises	383,281	400,822	416,733	441,795	378,314	291,009	207,247
<i>Auxiliary Growth</i>	5.8%	4.6%	4.0%	6.0%	-14.4%	-23.1%	-45.2%
Other Operating	307,286	233,717	311,119	222,076	179,034	231,214	228,605
<i>Other Operating Growth</i>	124.4%	-23.9%	33.1%	-28.6%	-19.4%	29.1%	27.7%
State	669,748	720,817	751,894	780,222	810,518	738,016	816,169
<i>State Growth</i>	7.8%	7.6%	4.3%	3.8%	3.9%	-8.9%	0.7%
Other Non Operating	162,741	195,089	197,142	231,504	222,128	204,198	206,912
<i>Other Non-Operating Growth</i>	12.3%	19.9%	1.1%	17.4%	-4.1%	-8.1%	-6.9%
Independent Business Lines (Med)	330,259	371,618	274,555	266,509	337,709	298,710	298,710
<i>Independent Business Lines Growth</i>	5.8%	12.5%	-26.1%	-2.9%	26.7%	-11.5%	-11.5%
Total	3,235,982	3,358,886	3,417,849	3,465,080	3,458,676	3,271,319	3,377,350
<i>Total Growth</i>	12.4%	3.8%	1.8%	1.4%	-0.2%	-5.4%	-2.4%

An addendum to this report will be filed following the June 2021 UMass Board of Trustees meeting laying out the next five years' financial forecast

University Revenue: Diverse Sources



Revenue: by Campus

\$ in Thousands	Actual					Budget	Q1 Projection
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Amherst	1,174,441	1,216,054	1,276,643	1,341,052	1,328,911	1,246,552	1,225,428
<i>Amherst Growth</i>	8.5%	3.5%	5.0%	5.0%	-0.9%	-6.2%	-7.8%
Boston	406,402	423,334	426,589	436,467	443,615	406,953	435,663
<i>Boston Growth</i>	8.1%	4.2%	0.8%	2.3%	1.6%	-8.3%	-1.8%
Dartmouth	241,281	248,385	250,628	256,592	251,446	224,285	229,072
<i>Dartmouth Growth</i>	4.1%	2.9%	0.9%	2.4%	-2.0%	-10.8%	-8.9%
Lowell	418,400	439,843	459,042	484,770	480,120	431,228	438,864
<i>Lowell Growth</i>	7.2%	5.1%	4.4%	5.6%	-1.0%	-10.2%	-8.6%
President's Office	107,621	117,659	119,219	124,478	132,526	121,566	98,770
<i>President's Office Growth</i>	7.8%	9.3%	1.3%	4.4%	6.5%	-8.3%	-25.5%
Subtotal	2,348,145	2,445,275	2,532,121	2,643,359	2,636,618	2,430,583	2,427,797
<i>Subtotal Growth</i>	7.1%	4.0%	3.4%	4.2%	-0.3%	-7.8%	-7.9%
Medical School	963,663	991,957	965,654	903,378	921,572	922,393	1,031,210
<i>Medical School Growth</i>	24.5%	2.9%	-2.7%	-6.4%	2.0%	0.1%	11.9%
Total	3,235,982	3,358,886	3,417,849	3,465,080	3,458,676	3,271,319	3,377,350
<i>Total Growth</i>	12.4%	3.8%	1.8%	1.4%	-0.2%	-5.4%	-2.4%

Online Revenue

\$ in Thousands	Actual				
	FY2016	FY2017	FY2018	FY2019	FY2020
Amherst	38,563	42,042	45,352	46,144	46,582
<i>Amherst Growth</i>	6.8%	9.0%	7.9%	1.7%	0.9%
Boston	18,041	19,416	19,717	19,461	20,216
<i>Boston Growth</i>	6.0%	7.6%	1.6%	-1.3%	3.9%
Dartmouth	6,734	8,026	9,635	11,213	12,115
<i>Dartmouth Growth</i>	16.9%	19.2%	20.0%	16.4%	8.0%
Lowell	32,588	35,291	38,380	39,237	41,465
<i>Lowell Growth</i>	6.5%	8.3%	8.8%	2.2%	5.7%
Total	96,029	104,852	113,169	116,149	120,494
<i>Total Growth</i>	7.2%	9.2%	7.9%	2.6%	3.7%

Source: FY16-FY20 provided by UMass Online; may differ from campus reported.

(1) UMass Online does not include revenue from the Dartmouth Office of Continuing Education technology fee.

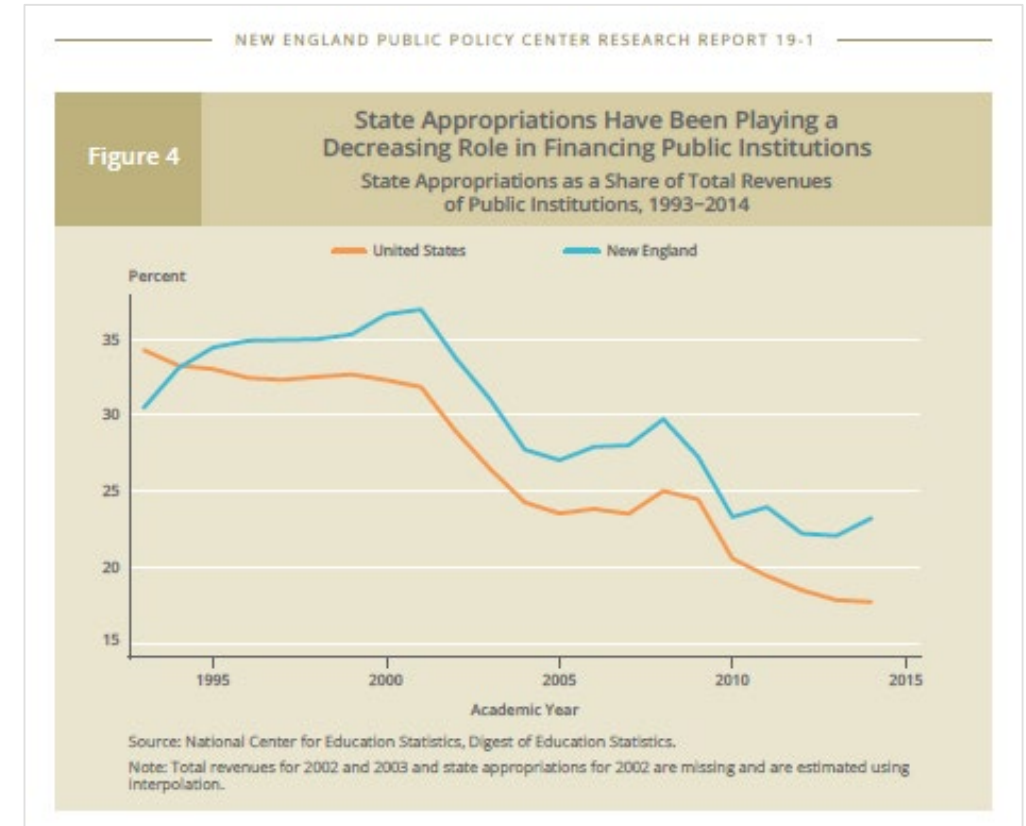
(2) UMass Online reports summer session revenue differently than Lowell financial reporting.

- Online revenue reflects the current programming through UMass Online.
- Annual increases assume both enrollment and expanded course offerings.
- Revenue does not reflect the future state of UMass Online.

National Trends in State Appropriations

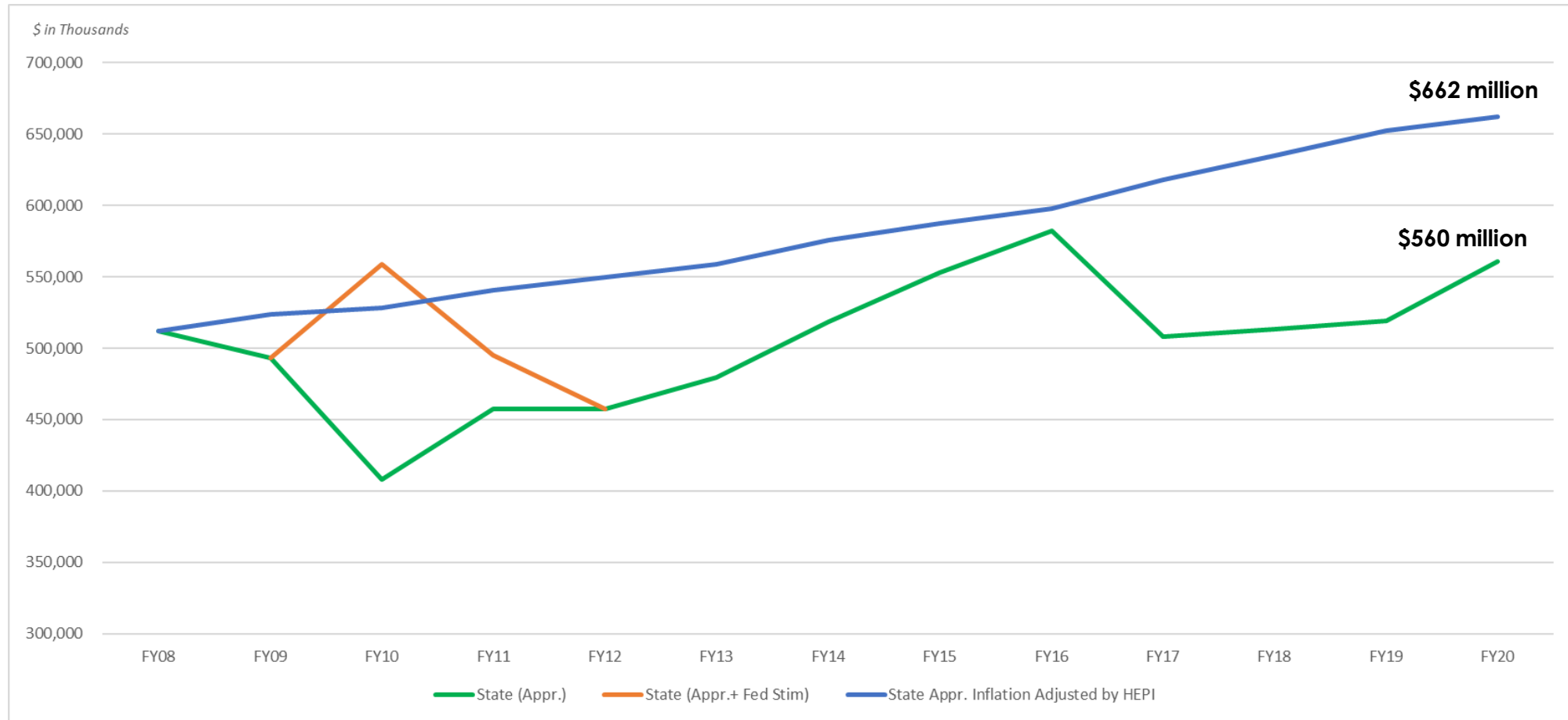
Support for higher education has declined in New England and nationally since 1993.

- Tuition and fees make up an increasingly larger share of the cost to attend UMass as state support has stagnated, a trend happening nationally.
- A Federal Reserve Bank of Boston study in 2019 shows that Massachusetts support for public higher education has declined as a share of total revenue since 1993.
- Trend is consistent with other states nationally and in New England.



State Appropriation Trend

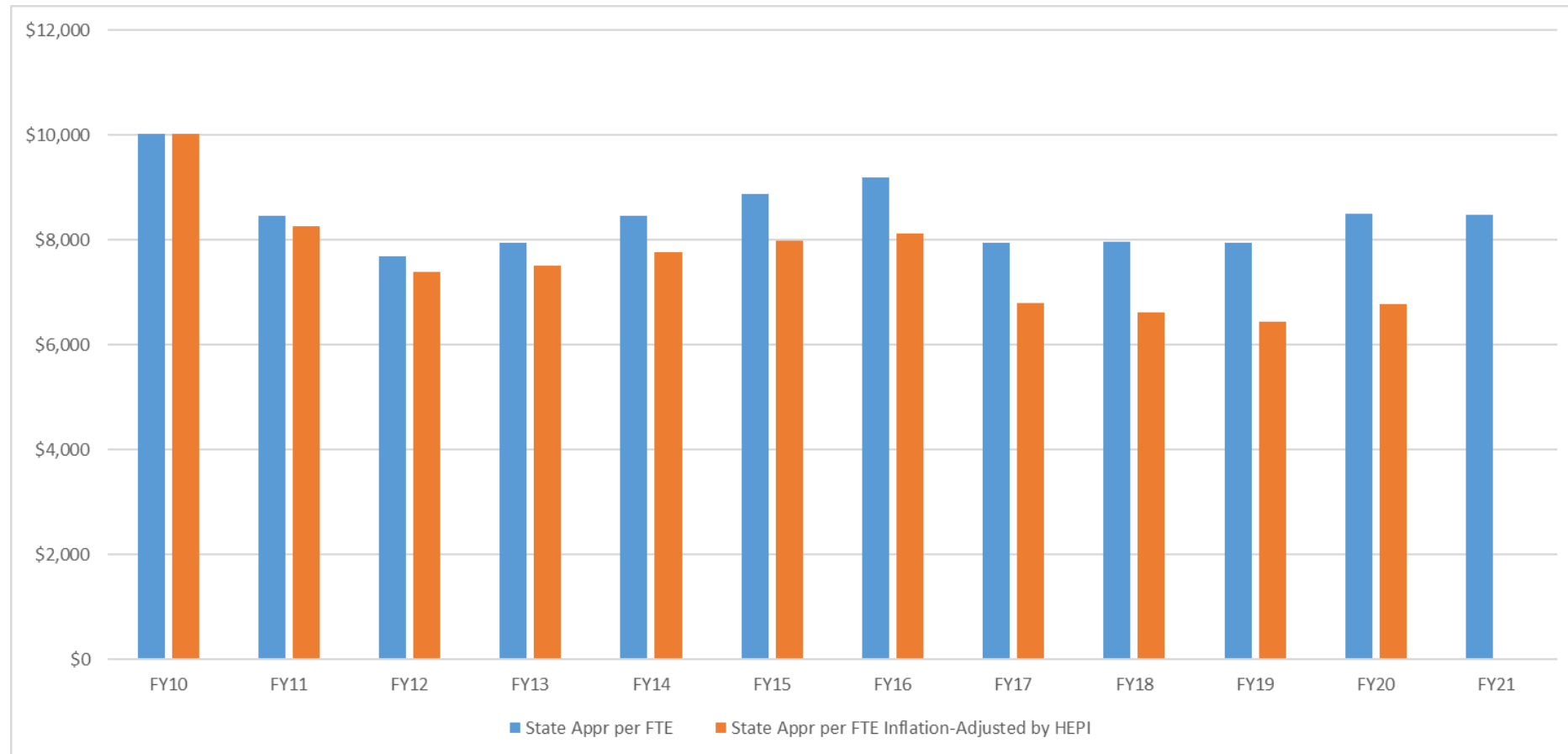
State support for UMass has not kept pace with inflation.



Does not include state supported fringe.

State Appropriation per Total Student FTE

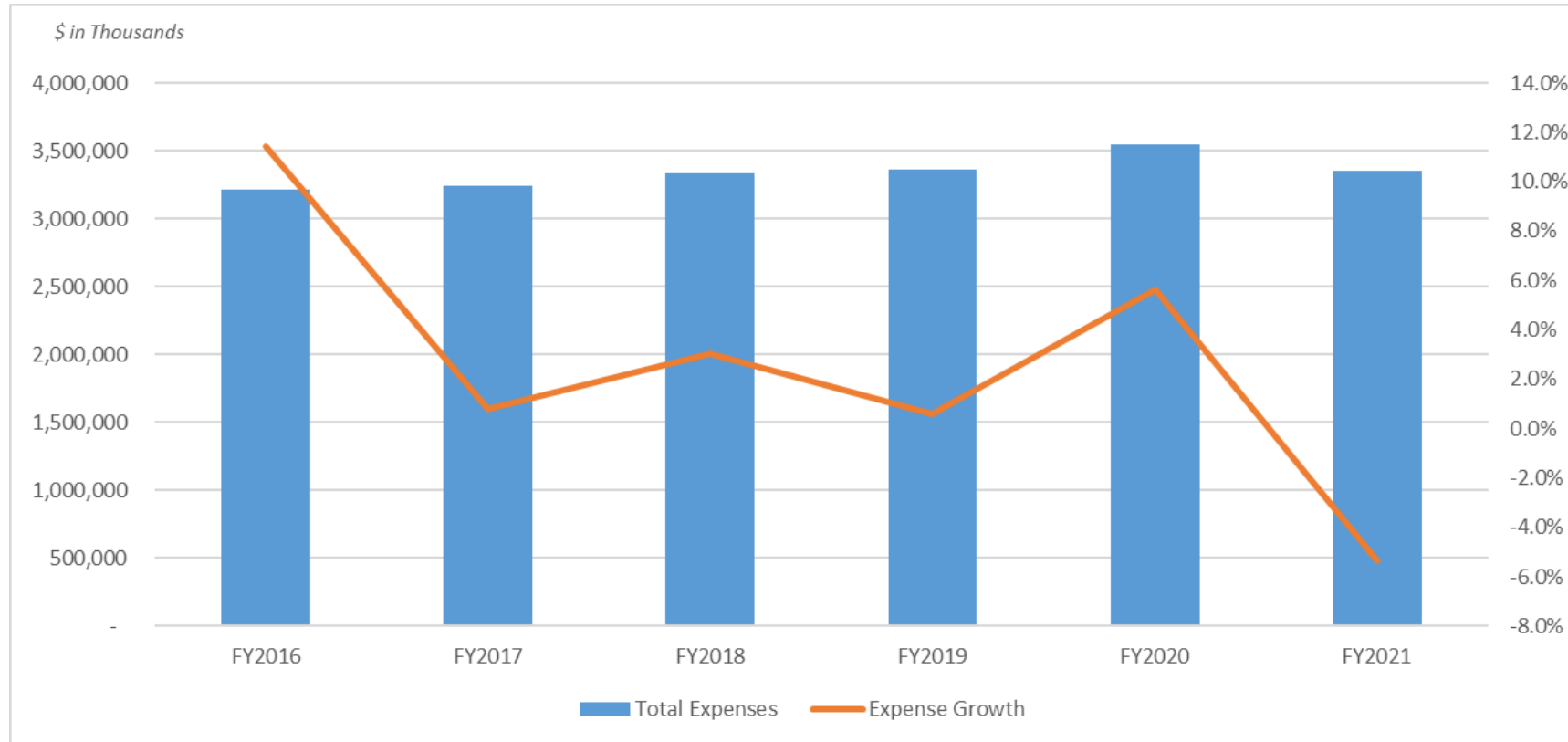
State support per student FTE has declined 15.3% from \$10,021 in FY10 to \$8,486 in FY21.



Note: Inflation adjustments not available for FY21.

Expenses

University Expenses: Annual Changes



Excludes impact of GASB 68 & 75

An addendum to this report will be filed following the June 2021 UMass Board of Trustees meeting laying out the next five years' financial forecast

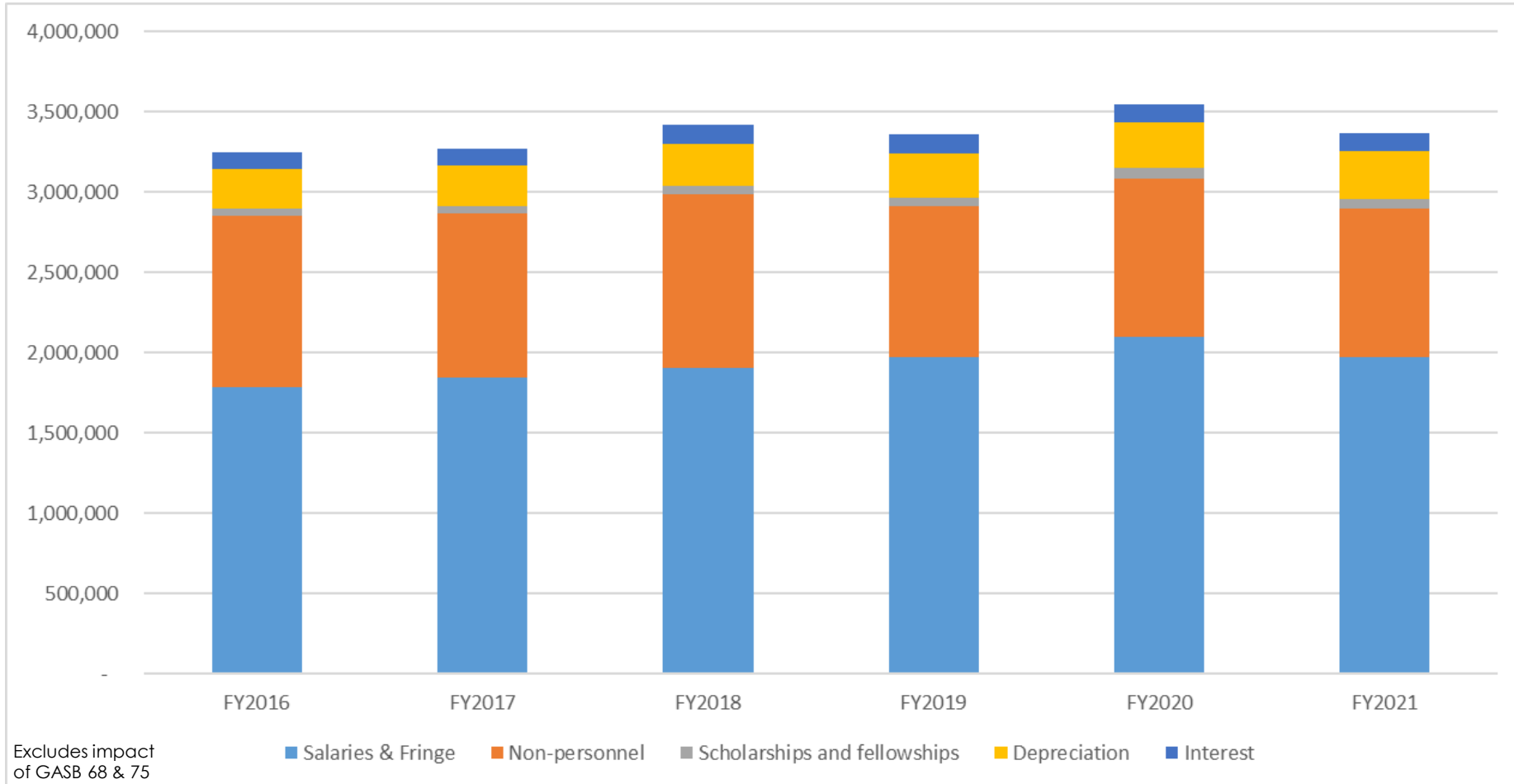
University Expenses: by Category

<i>\$ in Thousands</i>	Actual					Budget	Q1 Projection
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Salaries & Fringe	1,788,018	1,847,346	1,901,896	1,970,869	2,096,087	1,939,933	1,969,403
<i>Salaries & Fringe Growth</i>	7.8%	3.3%	3.0%	3.6%	6.4%	-7.4%	-6.0%
Non-personnel	1,067,226	1,018,600	1,088,019	943,685	987,219	872,854	920,254
<i>Non-personnel Growth</i>	25.1%	-4.6%	6.8%	-13.3%	4.6%	-11.6%	-6.8%
Scholarships and fellowships	44,645	47,706	50,402	49,507	65,469	55,250	59,076
<i>Scholarships & fellowships Growth</i>	-9.4%	6.9%	5.7%	-1.8%	32.2%	-15.6%	-9.8%
Depreciation	240,864	249,669	261,417	276,638	288,667	294,522	296,945
<i>Depreciation Growth</i>	9.0%	3.7%	4.7%	5.8%	4.3%	2.0%	2.9%
Interest	105,276	110,069	115,851	116,217	109,186	108,829	110,167
<i>Interest Growth</i>	4.9%	4.6%	5.3%	0.3%	-6.0%	-0.3%	0.9%
Total	3,211,563	3,237,351	3,337,511	3,356,916	3,546,628	3,271,389	3,355,845
<i>Total Growth</i>	11.4%	0.8%	3.1%	0.6%	5.7%	-7.8%	-5.4%

Excludes impact of GASB 68 & 75

An addendum to this report will be filed following the June 2021 UMass Board of Trustees meeting laying out the next five years' financial forecast

University Expenses: Expense Drivers



Expenses: by Campus

\$ in Thousands	Actual					Budget	Q1 Projection
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Amherst	1,128,807	1,173,095	1,241,490	1,296,841	1,329,105	1,251,202	1,230,895
<i>Amherst Growth</i>	6.9%	3.9%	5.8%	4.5%	2.5%	-5.9%	-7.4%
Boston	411,912	424,463	424,202	430,967	438,957	406,953	430,455
<i>Boston Growth</i>	9.1%	3.0%	-0.1%	1.6%	1.9%	-7.3%	-1.9%
Dartmouth	236,213	238,763	250,270	255,118	251,450	226,717	228,735
<i>Dartmouth Growth</i>	4.8%	1.1%	4.8%	1.9%	-1.4%	-9.8%	-9.0%
Lowell	417,850	428,306	451,552	476,652	483,244	431,228	440,607
<i>Lowell Growth</i>	7.9%	2.5%	5.4%	5.6%	1.4%	-10.8%	-8.8%
President's Office	104,744	108,938	106,776	111,963	129,844	121,566	98,195
<i>President's Office Growth</i>	7.6%	4.0%	-2.0%	4.9%	16.0%	-6.4%	-24.4%
Subtotal	2,299,526	2,373,565	2,474,290	2,571,540	2,632,599	2,437,665	2,428,886
<i>Subtotal Growth</i>	6.8%	3.1%	4.1%	3.8%	2.3%	-7.4%	-7.7%
Medical School	987,866	942,132	943,144	867,033	891,942	915,381	1,008,615
<i>Medical School Growth</i>	21.7%	-4.6%	0.1%	-8.1%	2.9%	2.6%	13.1%
Total	3,211,563	3,237,351	3,337,511	3,356,916	3,546,628	3,271,389	3,355,845
<i>Total Growth</i>	11.4%	0.8%	3.1%	0.6%	5.7%	-7.8%	-5.4%

Non-Instructional Administrative Costs Defined



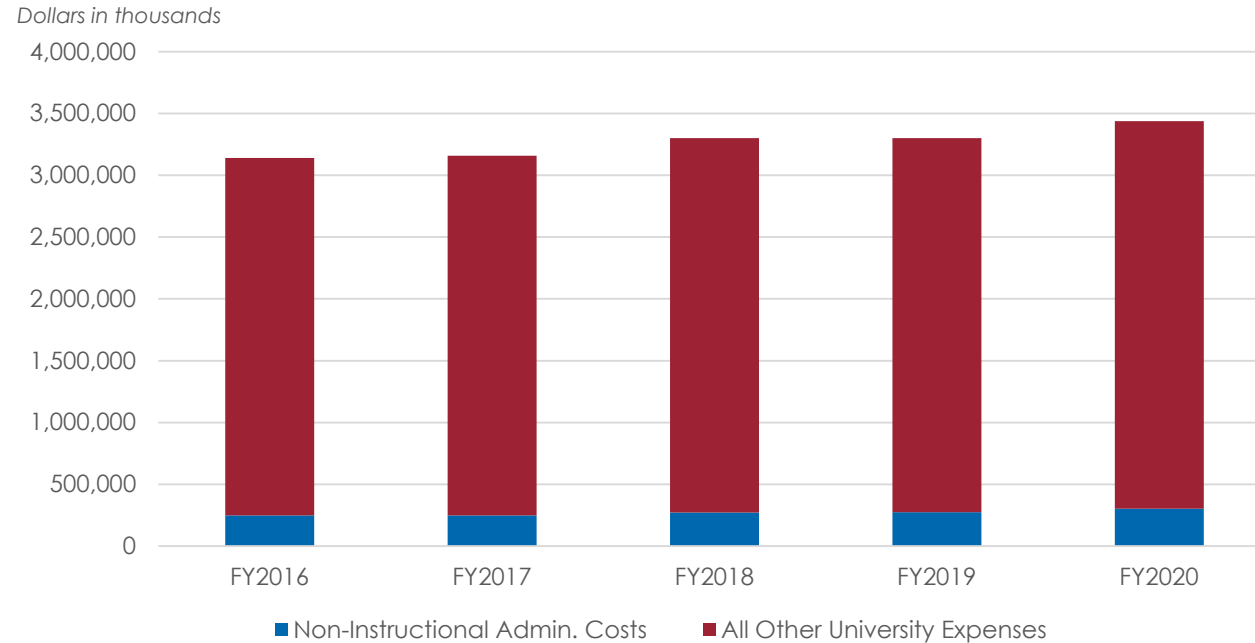
INSTITUTIONAL SUPPORT

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: 2016-2020

Non-instructional administrative costs are 8.8% of overall university expenses in FY2020.



Dollars in thousands	FY2016	FY2017	FY2018	FY2019	FY2020
Non-Instructional Admin. Costs	248,379	247,740	271,535	274,326	303,100
Percent of Total Costs	7.9%	7.8%	8.2%	8.3%	8.8%

SOURCE: UMass audited financial statements

Salaries & Payroll Defined

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

Overview of State-Mandated Fringe Benefit Rate

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

- Nearly all UMass employees are State employees and are afforded both state health insurance and retirement benefits.
- The cost of these benefits are assessed to the University using a methodology and fringe rate set by the Commonwealth - the current rate (38.32%) has increased by 32% over the last 9 years.
- The entire state appropriation (\$560M) 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 33% the University's total payroll costs (38% 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, \$560 million, is used to fund payroll which only covers 33% of the University's total payroll costs (38% when you factor fringe).

(\$ in Thousands)

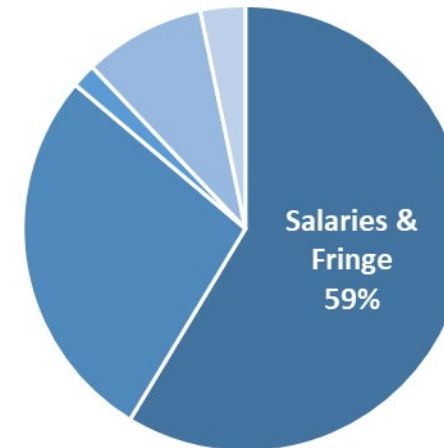
	Actual					Budget
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Salaries	1,435,992	1,455,195	1,483,336	1,590,469	1,712,578	1,584,995
Fringe	352,026	392,151	418,560	380,400	383,509	354,938
Total	1,788,018	1,847,346	1,901,896	1,970,869	2,096,087	1,939,933

Total University Payroll (FY20)

(\$ in Thousands)

	Total	University	State
Union Payroll	1,027,547	467,093	560,454
Non Union Payroll	685,031	685,031	-
Fringe	383,509	142,200	241,309
Total	2,096,087	1,294,324	801,763
<i>% of Total</i>		62%	38%

Total University Expenses
(\$3.4 billion at FY21 Q1 Proj.)

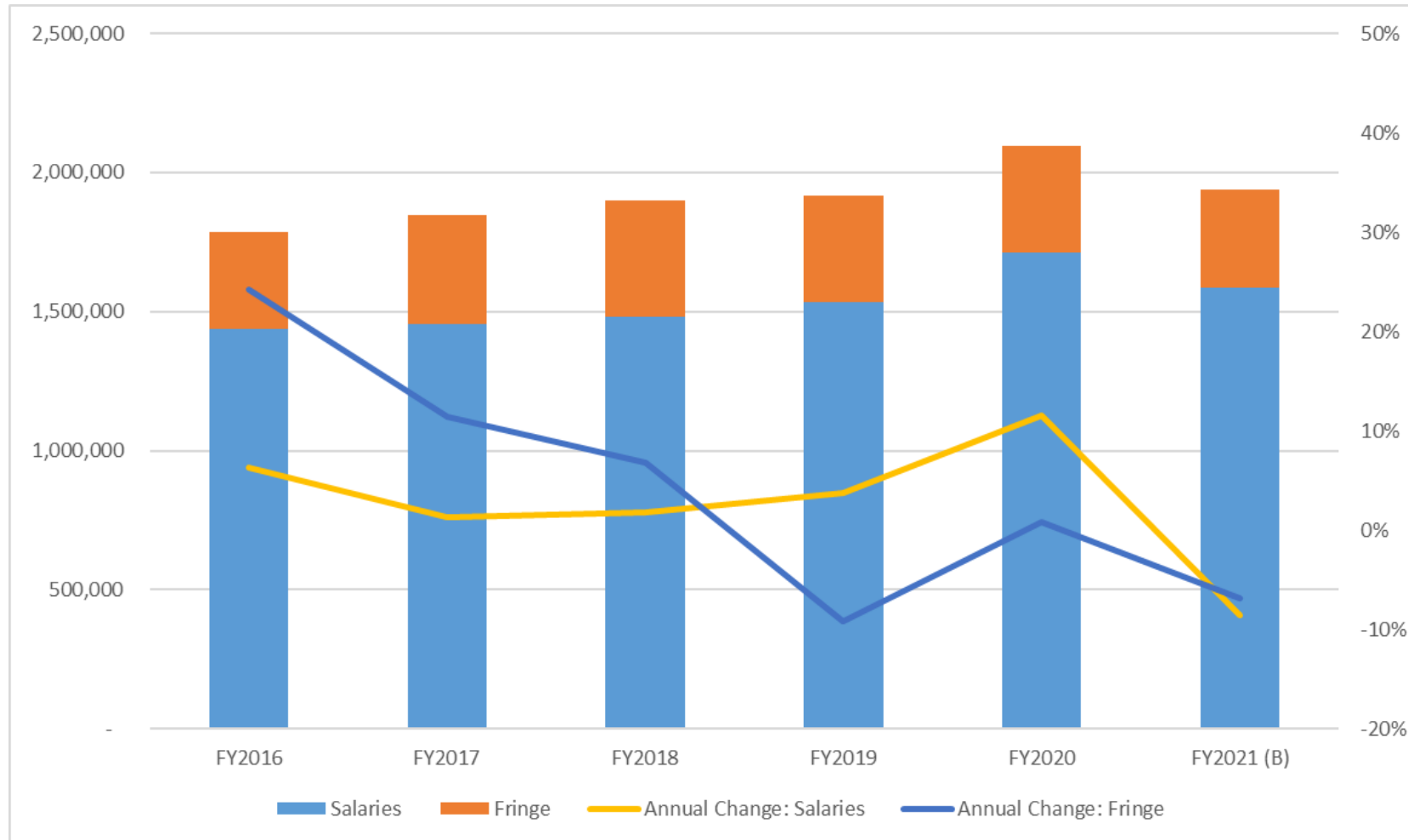


Collective Bargaining Update

UMass is currently awaiting parameters from the Administration and future collective bargaining costs have yet to be determined – new contract period is from FY21 – FY24.

- Administration (through the Office of Employee Relations) sets “parameters” which determines the increase to be paid over the contract period. This occurred for the new contract period but was then rescinded in response to COVID-19.
- Salaries are recurring, the cumulative impact of the contract must be funded in future budgets per M.G.L. Chapter 150E.
 - Annual impact of a 2% increase is approximately \$32 million.
- FY2021 budget assumes no salary increases, although the University and the respective collective bargaining units have been in negotiations concerning personnel reductions, furloughs, and other items.

Salaries & Fringe by Fiscal Year



Fiscal Year 2020 vs. Calendar Year 2020

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

Fiscal Year 2020 Salaries:

\$1.7 billion

Calendar Year 2020 Salaries:

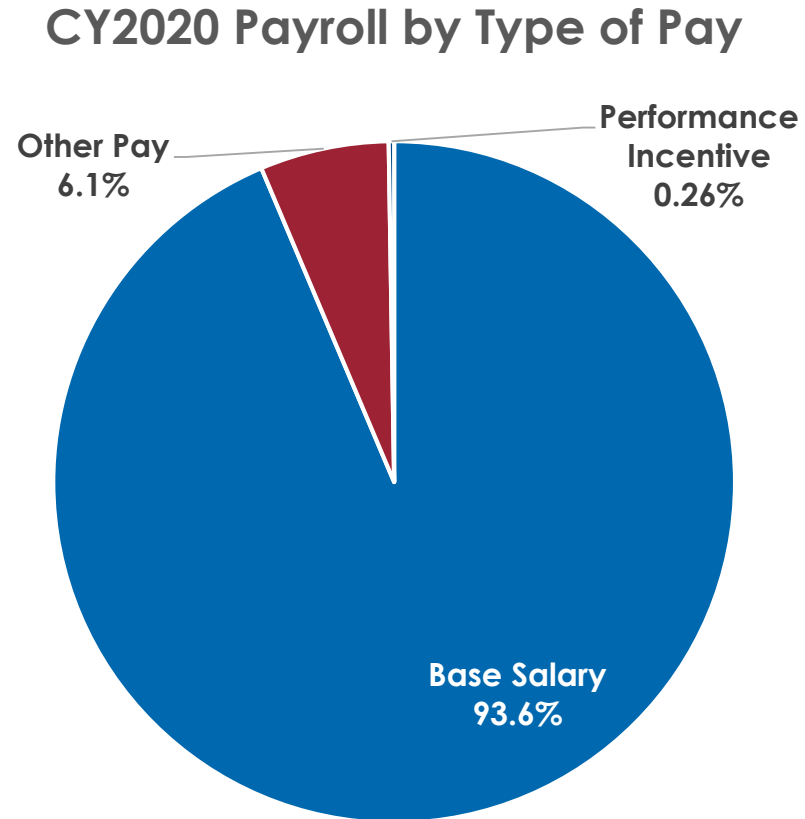
\$1.4 billion

Why the difference?

- The six month difference between fiscal year end and calendar year end creates variation
 - Pandemic workforce reductions from July – December 2020 are not captured in FY20 data
- 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 2020 Payroll by Type of Pay

Annually, only one quarter of one percent of total compensation (\$1.44 billion) goes to performance incentive pay.



- Base pay accounts for 94% 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 (55%); overtime (11%); and payments made at separation (14%).

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 2020, 83% of the performance incentive payments were earned at the Medical School consistent with their total compensation reward program

Calendar Year Payroll by Type of Pay

Base pay accounts for 94% of UMass payroll. Payroll by type of pay has remained consistent over time.

Total University Payroll

<i>\$ in Thousands</i>	2016	2017	2018	2019	2020
Base Pay	1,278,844	1,300,035	1,329,888	1,380,743	1,343,982
	94.3%	94.3%	94.2%	94.3%	93.6%
Other Pay	73,587	75,052	78,099	80,502	87,783
	5.4%	5.4%	5.5%	5.5%	6.1%
Performance Incentive	3,239	3,890	3,091	3,679	3,668
	0.2%	0.3%	0.2%	0.3%	0.3%
Total	1,355,670	1,378,978	1,411,078	1,464,924	1,435,434
	100.0%	100.0%	100.0%	100.0%	100.0%

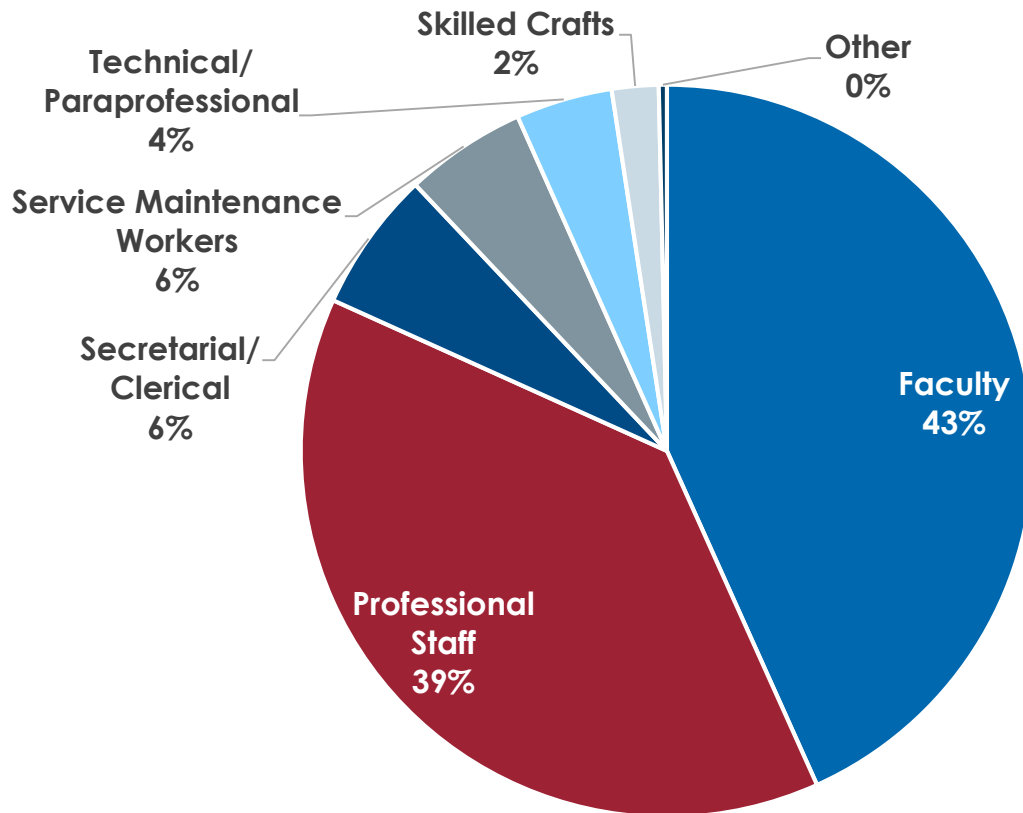
Data based on calendar year.

Note: increase in "other pay" in 2020 is largely related to voluntary separation incentive payments (VSIP) – a pandemic-related strategy to reduce payroll costs.

Calendar Year 2020 Payroll by Staff Type

In 2020, 43% of salaries went to faculty and 39% went to professional staff.

CY2020 Payroll by Staff Type



Excludes Medical School

- \$407 million in Medical School salaries have been excluded due to the number of staff supporting independent business lines – primarily healthcare consulting and bio-manufacturing.
- Independent business lines are distinct from educational functions and thus skew salary data of the undergraduate campuses when included.

Calendar Year Payroll by Staff Type

Faculty salaries are 43.3% in 2020 – an increase from 41% in 2016. Professional staff salaries are 38.5% in 2020 – nearly level with 2016.

Undergraduate Campuses & President's Office					
<i>\$ in Thousands</i>	2016	2017	2018	2019	2020
Faculty	402,149	413,304	426,773	440,297	444,992
<i>% of Total</i>	41.0%	41.4%	41.6%	41.3%	43.3%
Professional Staff	372,513	381,282	390,596	409,016	395,553
<i>% of Total</i>	38.0%	38.2%	38.1%	38.4%	38.5%
Service Maintenance Workers	65,791	66,397	68,353	72,477	55,189
<i>% of Total</i>	6.7%	6.6%	6.7%	6.8%	5.4%
Secretarial/Clerical	68,421	67,963	67,377	68,711	63,769
<i>% of Total</i>	7.0%	6.8%	6.6%	6.5%	6.2%
Technical/Paraprofessional	45,639	44,813	45,290	46,541	43,846
<i>% of Total</i>	4.7%	4.5%	4.4%	4.4%	4.3%
Skilled Crafts	22,076	22,635	23,896	25,021	21,191
<i>% of Total</i>	2.3%	2.3%	2.3%	2.3%	2.1%
Other	3,523	2,987	2,852	3,042	3,680
<i>% of Total</i>	0.4%	0.3%	0.3%	0.3%	0.4%
Total	980,112	999,381	1,025,136	1,065,107	1,028,220
<i>% of Total</i>	100.0%	100.0%	100.0%	100.0%	100.0%

Data based on calendar year.

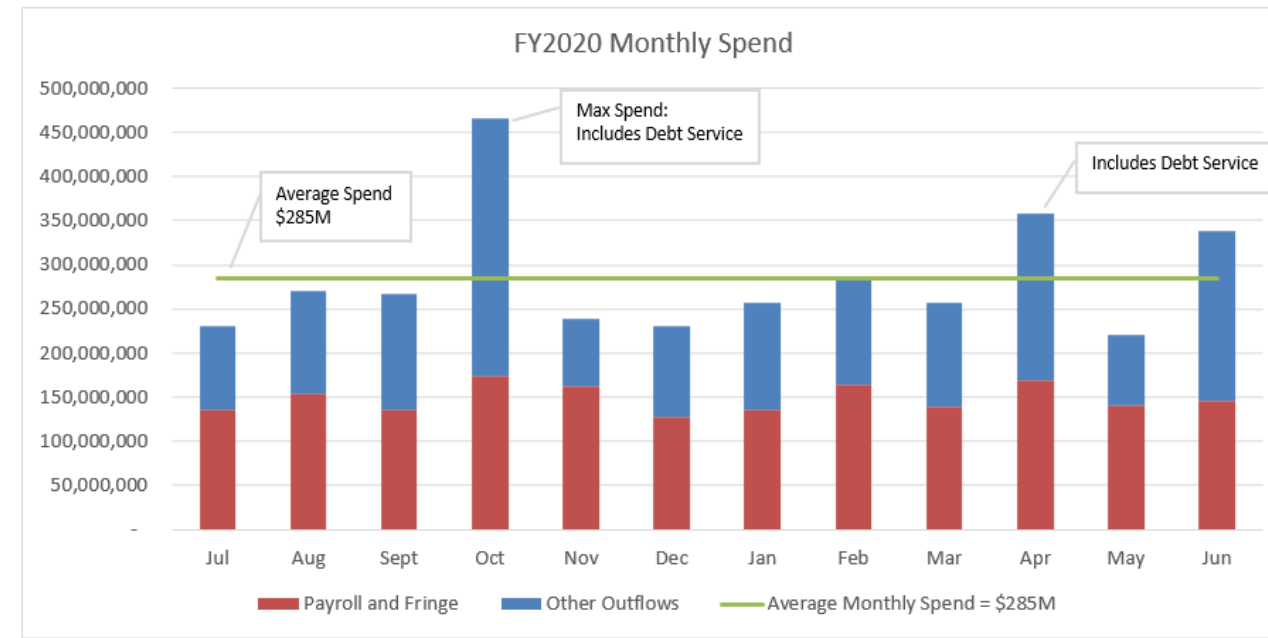
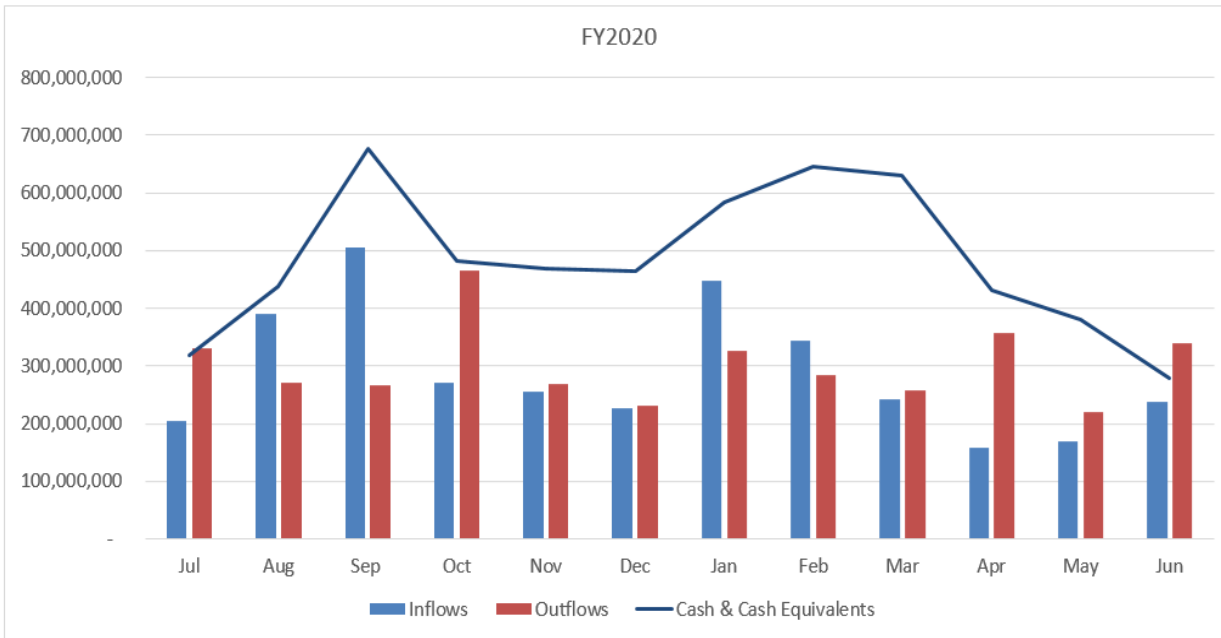
Staffing by Type and Funding Source

Pandemic impacts have caused FTEs to contract in FY21. Prior growth includes faculty to support enrollment and staff to support revenue generating activities such as grants and independent business lines.

Employee FTEs	UNIVERSITY				
	Actual				
	FY2017	FY2018	FY2019	FY2020	FY2021
Restricted					
Faculty	272	320	319	322	311
Staff	1,349	1,615	1,618	1,573	1,542
Total Restricted	1,621	1,935	1,936	1,895	1,854
<i>FTE Change (#)</i>		313	2	(41)	(41)
Unrestricted General University Ops					
Faculty	3,759	3,813	3,776	3,940	3,873
Staff	6,487	6,521	6,638	6,591	6,209
Total General University Ops	10,246	10,334	10,414	10,531	10,082
<i>FTE Change (#)</i>		88	80	118	(449)
Unrestricted Aux./Independent Business					
Faculty	18	13	11	10	11
Staff	2,549	2,516	2,765	3,030	2,292
Total Aux./Independent Business	2,567	2,529	2,776	3,040	2,303
<i>FTE Change (#)</i>		(38)	247	265	(737)
Total Faculty & Staff	14,434	14,798	15,126	15,467	14,239
<i>FTE Change (#)</i>		364	328	341	(1,228)

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

- \$285 million average monthly spend
- Debt service payments create significant outflows in October and April

Liquidity Management Strategy

- These are unprecedented times, which have substantially reduced revenue
- The Board is prohibiting deficit spending in order to sustain the University for the long term as the most sustainable response is to align expenses with revenue
- Depleting liquid reserves would leave the University defenseless in the future
- Not all reserves are available to be spent, as University endowment is restricted by donors for long-term use by the campuses
- Available reserves (operating liquidity) would only cover less than 3 months of operations
- Our approach will best position UMass to survive the pandemic and thrive when the economy recovers

Line of Credit

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

- On 11/10/20, 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
- UMass is currently negotiating on the terms of a Revolving Line of Credit with Bank of America
 - Line of Credit amount will be \$150M, with BofA & State Street Bank both serving as lenders
- Line of Credit has not yet been finalized or utilized; currently targeting April 2021 to close
- When used, the Line of Credit will address a mismatch between inflows and outflows occurring at different, asynchronous periods throughout the year

Financial Aid



Financial Aid

What is it?

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

When do we do it?

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

What is included?

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

Why do we do it?

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

Key Links:

- ✓ [**FY20 Report**](#)



Sources and Categories of Financial Aid Defined

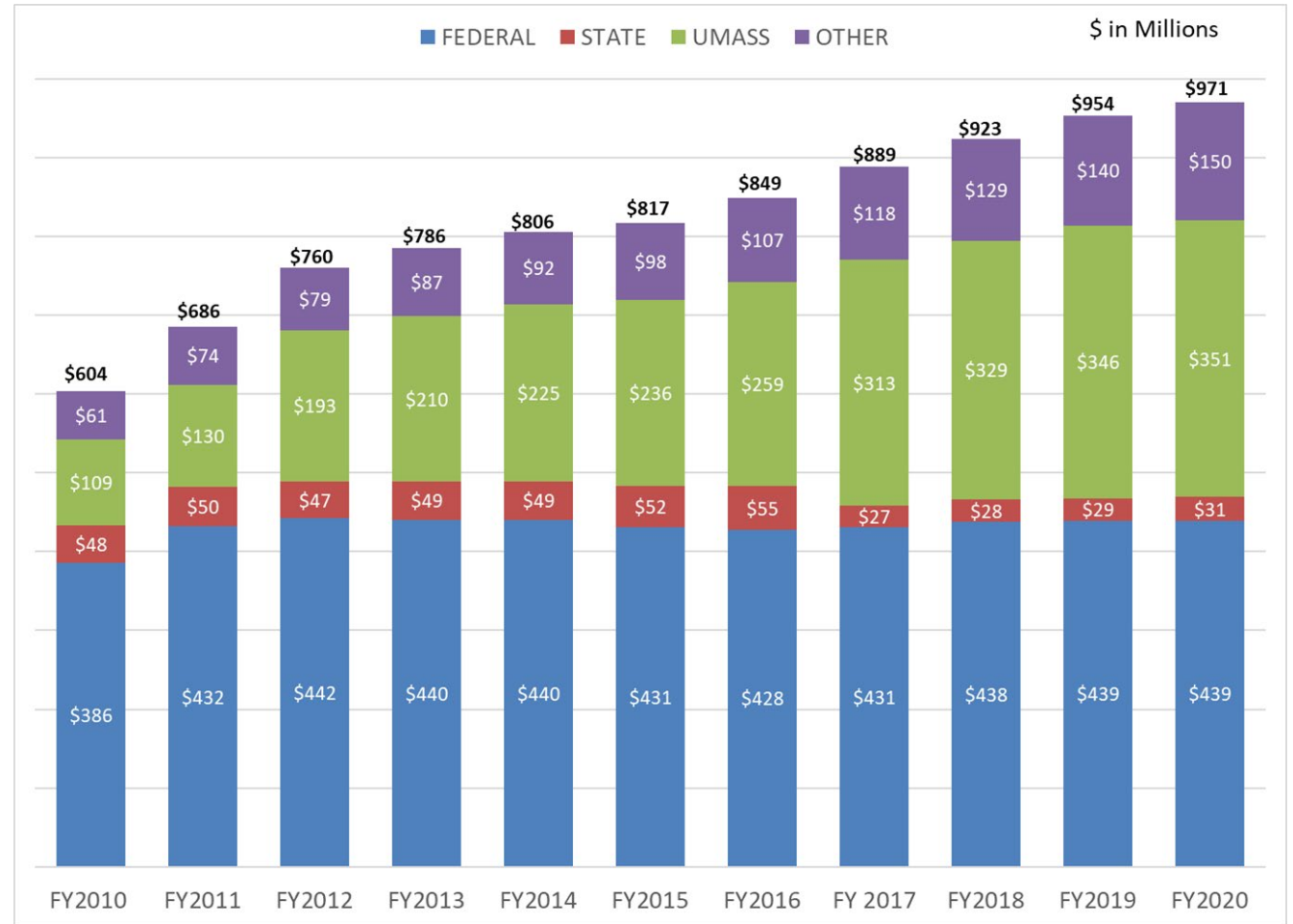
94% of University-funded need based financial aid goes to in-state students

- UMass students received a **total of nearly \$1 billion in financial aid**, including university, federal, state and private financial aid.
- Financial Aid falls into 2 categories:
 - Need Based Financial Aid –student demonstrates financial need based on the Free Application for Federal Student Aid (FAFSA)
 - Non-Need Based Financial Aid- student meets certain eligibility requirements other than financial need (note: while this category is not constrained to students demonstrated need, awards are made that address need)
- Tuition revenue supports the financial aid UMass provides
- The majority of University funded financial aid is provided by scholarships, grants, and tuition credits
- University financial aid help drive strategies that:
 - Impact affordability for students with need
 - Recruit new students
 - Retain continuing students
 - Address degree completion requirements

Total Financial Aid by Type

UMass' has increased financial aid to its students by \$240 million, or 215%, since FY10, while federal funding has remained stagnant and state funding has eroded.

- FY20 total financial aid from all sources is projected to increase by 2% to \$971 million
- **University funded financial aid:**
 - Totaled \$351 million in FY20 which represents 2% growth over FY19
 - Represents 36% of the total aid and is primarily scholarships and grants
- Student debt remains consistent with prior years with average debt at graduation in FY20 being \$32,291



Investment in Financial Aid

\$ in Thousands	Actual						Budget	Q1 Projection
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Tuition Discounts	222,164	244,025	288,708	311,947	328,830	343,030	338,615	345,056
<i>Discount Rate</i>	22.5%	22.8%	25.4%	26.3%	26.9%	27.2%	27.5%	27.6%
Scholarships & Fellowships	49,300	44,645	47,706	50,402	49,507	65,469	55,250	59,076
Total	271,464	288,670	336,414	362,349	378,337	408,499	393,866	404,132
Amherst	119,476	129,333	156,819	169,040	168,209	188,047	185,487	184,087
Boston	56,565	61,518	69,981	74,970	82,819	90,744	88,174	96,986
Dartmouth	43,206	40,988	43,000	43,818	48,064	45,499	42,416	42,416
Lowell	50,151	54,551	63,833	71,201	75,010	79,070	72,724	75,424
Medical School	2,060	2,269	2,751	3,320	4,235	5,139	5,065	5,219
Total	271,464	288,670	336,414	362,349	378,337	408,499	393,866	404,132

Note: As a result of varying methodologies to report financial aid, the totals in this table may differ from totals shown in other charts. The methodology used in this chart is based on the University's financial statements using the "alternative method" for tuition discounting, a NACUBO accepted calculation for financial aid reporting.

Average Financial Aid Package: In-State Undergraduates with Need

Financial aid at UMass is targeted toward those who need it most.

Federal Income Range	Average Financial Aid Package	Composition of Average Financial Aid Package			Average Unmet Need
		Grant Award	Loan Award	Work Award	
Less than \$30,000	\$ 20,352	53%	36%	11%	\$ 4,733
\$30,000 - \$40,000	\$ 19,858	55%	35%	11%	\$ 4,272
\$40,001 - \$50,000	\$ 19,476	54%	36%	11%	\$ 3,982
\$50,001 - \$75,000	\$ 17,375	48%	40%	12%	\$ 3,623
\$75,001 - \$100,000	\$ 13,910	41%	46%	14%	\$ 2,780
Greater than \$100,000	\$ 8,995	33%	51%	16%	\$ 1,316

- Average campus Financial Aid package is based on the cost of attendance (tuition, mandatory fees, housing, etc.) net of the expected family contribution
- A financial aid package may contain grants, loans, and work study to defray the cost of attendance

Capital Plan



Capital Plan

What is it?

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

What is included?

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

When do we do it?

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

Why do we do it?

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

Key Links:

- ✓ [FY19-23 Capital Plan](#)



UMass Capital: by the Numbers

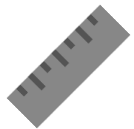
With 375 buildings and 28.3 million gross square feet of space, UMass has a complex and extensive real estate profile that needs to be actively managed.



\$4.0 billion deferred maintenance backlog



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



28.3M Total GSF across the university



3,677 maintained acres



375 buildings across 5 campuses



\$13 billion replacement value

UMass Debt Facts

University credit rating:

Aa2 (Moody's), AA- (S&P), AA (Fitch)

Total debt outstanding:

\$3.0 billion

Annual debt service:

\$224 million (paid in fall and spring)

Debt service burden:

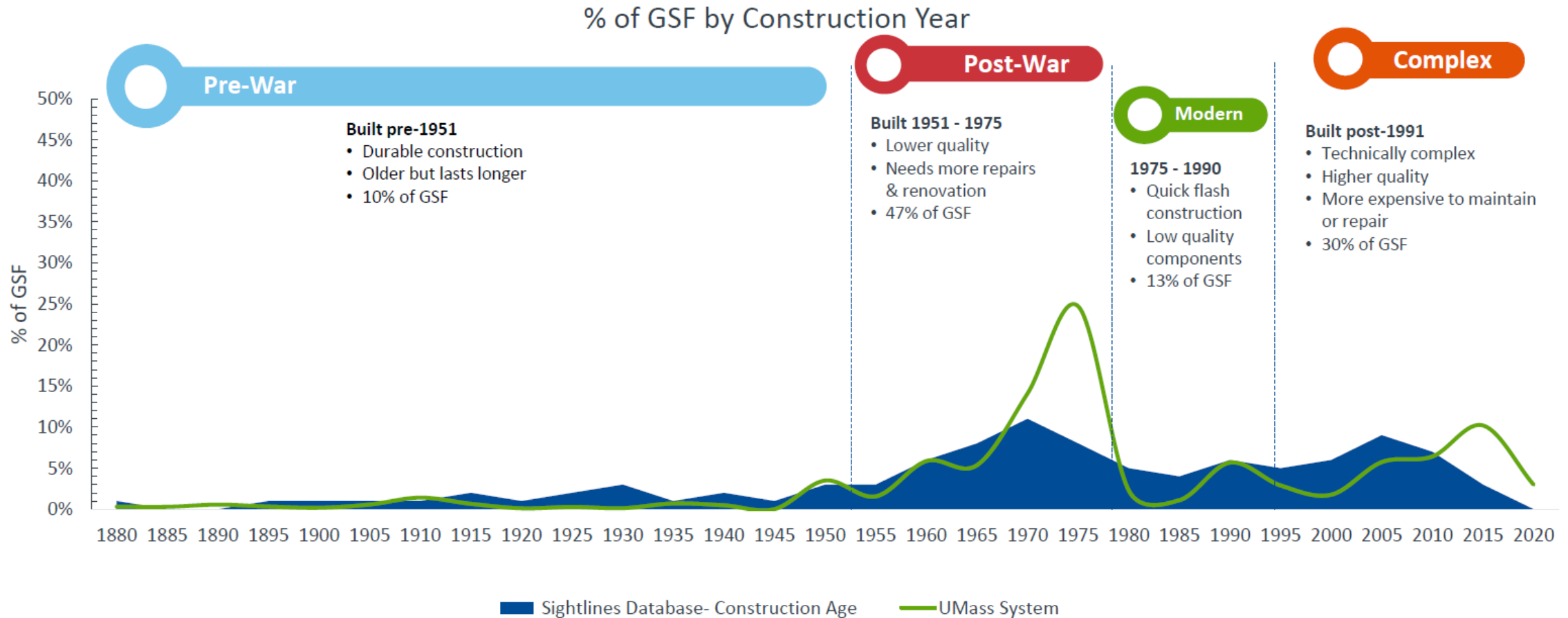
6.2% (peers are under 5%)

Financial leverage ratio:

0.43 (spendable cash/total debt) (below the peer median of 1.41, indicating the University has higher total debt in relation to peers)

Age of UMass Buildings

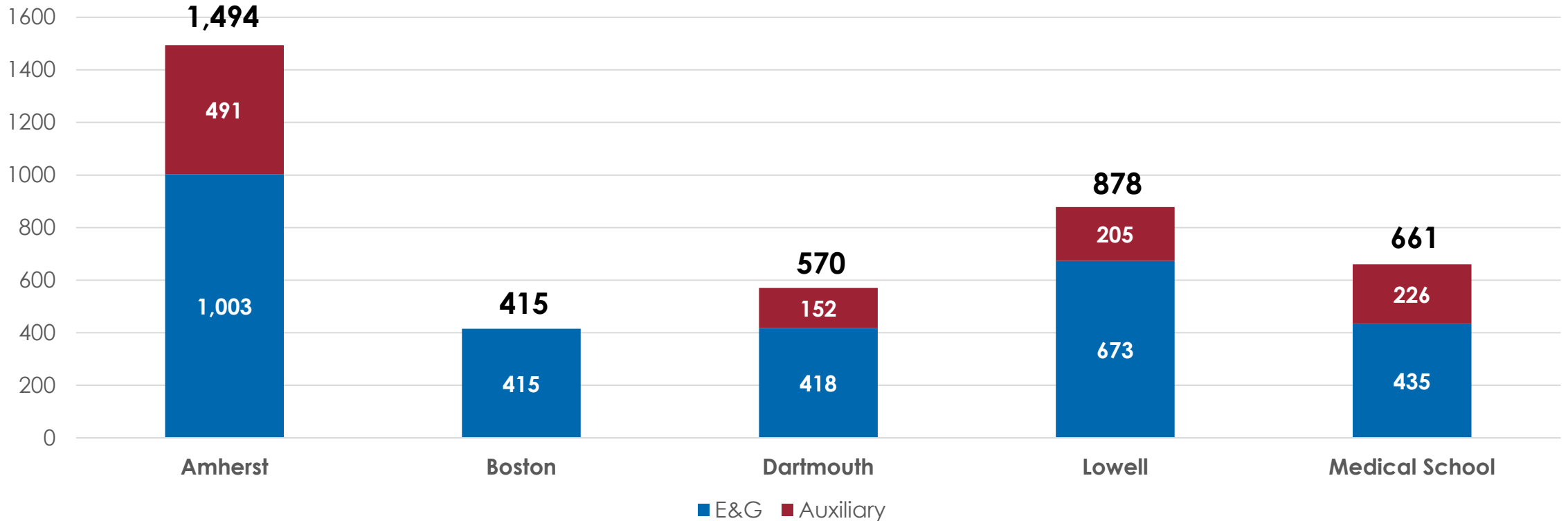
60% of buildings were constructed during the Post-War and Modern eras – between 1951 and 1990.



UMass Deferred Maintenance

The need for investment in deferred maintenance at UMass is approximately \$4.0 billion, down from \$4.4 billion a year prior – with \$2.9 billion needed in education & general spaces and \$1.1 billion needed in auxiliary spaces.

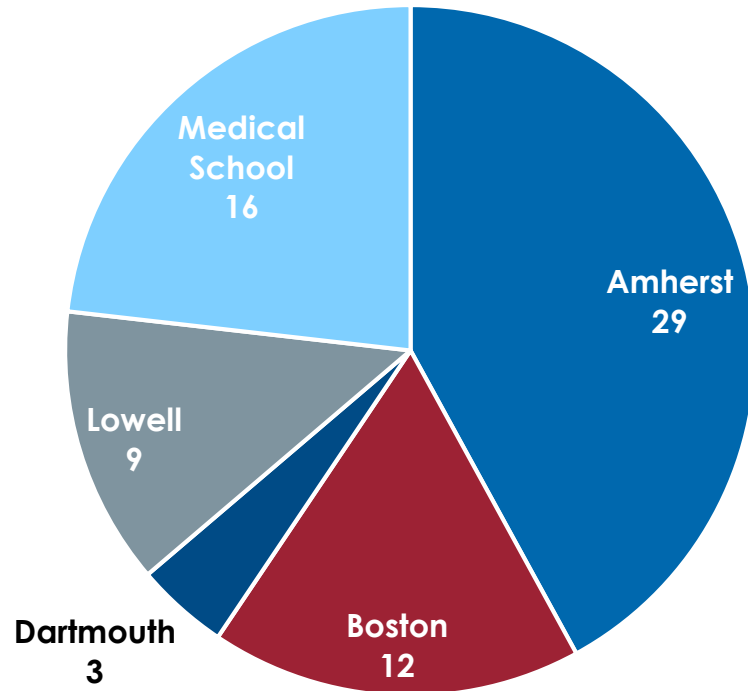
FY2020
\$ in millions



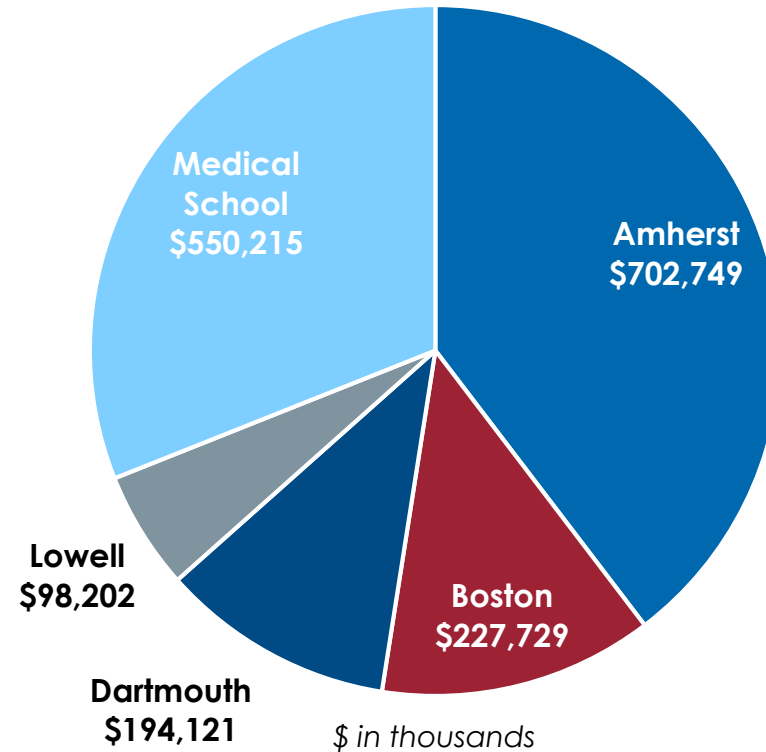
Capital Plan

Current capital plan – including both Board and President-approved projects – has 69 projects totaling \$1.77 billion. Over 50% of projects – totaling \$892 million – are in construction.

Number of Projects



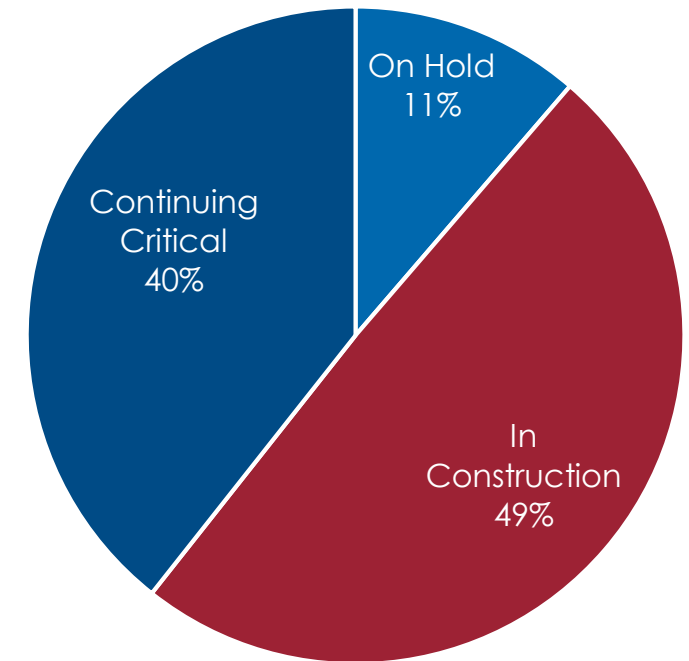
Estimated Cost of Projects



COVID-Related Capital Curtailment

- In response to COVID-related challenges, \$201 million in planned Board and President-approved capital projects have been placed on hold
- By default, projects not already in construction have been placed on hold. Reviews for special approval evaluate projects based upon factors including:
 - Life safety issues
 - COVID-19 response
 - Unforeseen emergencies
 - External funding (federal, state, grants, donations, utilities)
 - Immediate, positive impact on campus operating budgets

Board and President-Approved Projects



Total project cost

FY19 – FY23 Capital Plan: Amherst Projects

A list of capital projects completed between FY15 and FY20 can be found in the campus sections – tab 9

Campus	Project	Adjusted Cost (\$)	Phase
Amherst	Thompson Deferred Maintenance	2,250,000	2 - Feasibility Report
Amherst	Goodell Renovation	35,000,000	4 - Study / Schematic Design
Amherst	Energy Improvements	15,000,000	5 - Design
Amherst	Office/Lab/Academic Renovations	52,500,000	6 - Final Design / Early Construction Packages
Amherst	Goessmann, SPHHS Renovations	15,100,000	6 - Final Design / Early Construction Packages
Amherst	Student Union Building	67,200,000	7 - Construction
Amherst	Campus Central Core Project	31,050,000	7 - Construction
Amherst	Worcester Dining Commons Renovation	68,859,904	7 - Construction
Amherst	Central Heating Plant Boiler/Co-gen Fitout	22,600,000	7 - Construction
Amherst	Replace Oil Filled Transformers	2,000,000	7 - Construction
Amherst	Whitmore Deferred Maintenance	4,169,000	7 - Construction
Amherst	Fine Arts Center Renovations	12,070,000	7 - Construction
Amherst	Isenberg School Of Management Renovations and Addition	64,000,000	8 - Substantial Completion
Total		\$391,798,904	

FY19 – FY23 Capital Plan: Boston Projects

A list of capital projects completed between FY15 and FY19 can be found in the campus sections – tab 9

Campus	Project	Adjusted Cost (\$)	Phase
Boston	Demolish Substructure, Science Center, and Pool (Master Plan Phase I)	137,139,950	7 - Construction
Boston	Renovations to Existing Academic Buildings (McCormack Hall and Wheatley Hall) (Master Plan Phase I)	44,600,000	8 – Substantial Completion
Total		\$181,739,950	

FY19 – FY23 Capital Plan: Dartmouth Projects

A list of capital projects completed between FY15 and FY19 can be found in the campus sections – tab 9

Campus	Project	Adjusted Cost (\$)	Phase
Dartmouth	SENG - Building System Project	45,000,000	7 - Construction
Total		\$45,000,000	

FY19 – FY23 Capital Plan: Lowell Projects

A list of capital projects completed between FY15 and FY19 can be found in the campus sections – tab 9

Campus	Project	Adjusted Cost (\$)	Phase
Lowell	Critical Repair - Olsen Strategic Renovations, Repairs and Replacements	18,500,000	6 - Final Design/Early Construction Packages
Lowell	Coburn Hall Renewal and Addition	47,802,251	8 - Substantial Completion
Total		\$78,302,251	

FY19 – FY23 Capital Plan: Medical School Projects

A list of capital projects completed between FY15 and FY19 can be found in the campus sections – tab 9

Campus	Project	Adjusted Cost (\$)	Phase
Medical School	Parking Lot Maintenance - Main Campus	10,840,000	1 - Conceptual
Medical School	Library repurposing and renovations	5,500,000	1 - Conceptual
Medical School	Departmental equipment purchases	10,000,000	1 - Conceptual
Medical School	Power Plant Expansion	50,000,000	5 - Design
Medical School	New Education and Research Facility	325,000,000	5 - Design
Medical School	VA-1 Expansion to South Road Garage	10,000,000	6 - Final Design / Early Construction Packages
Medical School	VA-1 Worcester VA Community Based Outpatient Clinic - New Facility - Phase 1	78,000,000	7 - Construction
Medical School	REN - 4 Clinical Wing Lab to Office Conversions (Floor 2 - 7)	15,500,000	7 - Construction
Medical School	Lab Renovations	14,500,000	7 - Construction
Medical School	VA-1 Mass DOT Building Demolition	2,000,000	8 - Substantial Completion
Total		\$521,340,000	

Alternative Finance & Delivery: Public-Private Partnerships (P3s)

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

Campus	Project	Adjusted Cost (\$)	Phase
Amherst	North Village Apartments	38,800,000	4 – Study / Schematic Design
Amherst	Housing Expansion	191,600,000	4 – Study / Schematic Design
Boston	Calf Pasture Pump House	TBD	1 – Conceptual
Dartmouth	New Housing/Dining Facility	140,121,005	8 – Substantial Completion
Lowell	Tsongas Center Annex	12,000,000	2 – Feasibility Report
Total		\$382,521,005	

Real Estate & Asset Management

With over 330 buildings and 25.1 million gross square feet of space, UMass has a complex and extensive real estate portfolio that needs to be actively managed.

- UMass has a mission built on research and education, which can't be accomplished without state of the art facilities.
- UMass regularly evaluates its real estate assets, and with the advice of industry experts looks for opportunities to acquire real estate, change the use of existing real estate and at times to dispose and monetize property when doing so is in the best long term interest of the University.
- UMass campuses have expanded over the years, acquiring buildings and land in different ways. Since the founding of each campus, acquisitions have occurred through donations, they have been purchased, in some cases with State resources, and the University has used its own resources including issuing debt.

Land 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	Acquisitions & Dispositions	Amount (\$)	Status
Boston	Bayside (acquisition & disposition)	18,700,000	Acquisition complete - 2010, disposition pending
Amherst	472 North Pleasant Street	12,500,000	Complete - 2020
Amherst	Mount Ida	75,000,000	Complete - 2018
Amherst	400 Venture Way, Hadley	4,650,000	Complete - 2018
Lowell	225 Aiken Street	5,800,000	Complete - 2015
Lowell	193-195 & 199-201 Pawtucket Street	2,000,000	Complete - 2015
Lowell	Perkins Lofts	61,500,000	Complete - 2016
Lowell	West Campus (disposition)	4,051,770	Complete - 2019

Updates:

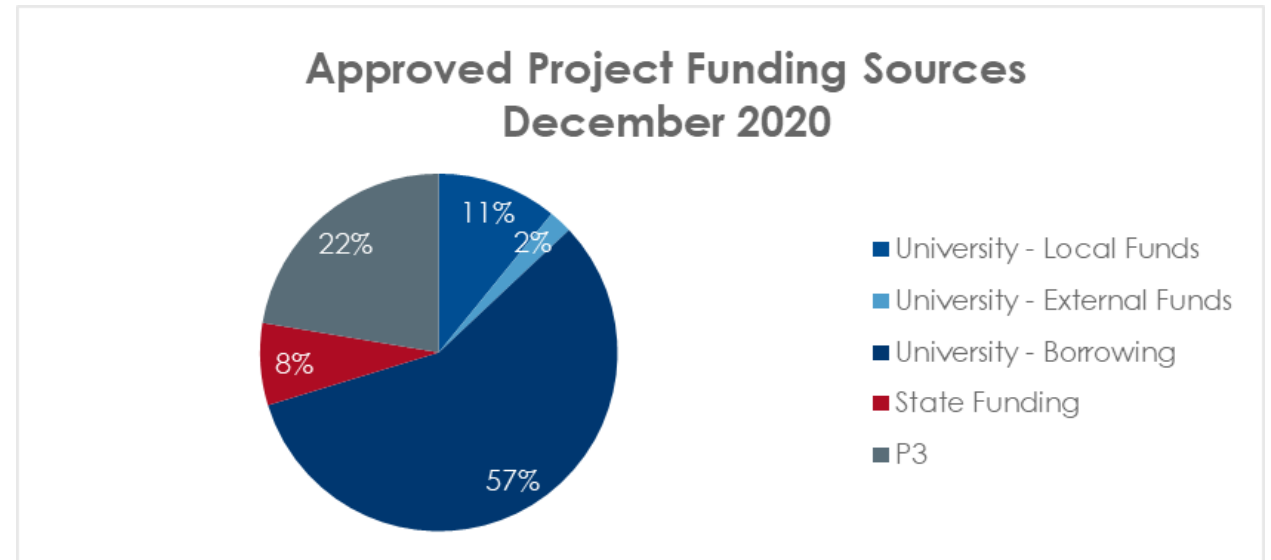
- On February 14, 2019, UMass designated Accordia Partners to build a mixed-use urban innovation campus on the 19.94-acre Bayside property, bought by UMass for \$18.7 million in 2010. Accordia offered a minimum of \$192.5 million and a maximum of \$235 million (depending on the square footage approved)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

Funding Sources Dashboard

- Local and External Funds – no major updates
- Borrowing – UMBA completed bond issuance in January 2020
- State – no new major projects were funded in the FY21 capital investment plan
- P3 – UMA has P3 projects underway; UMD recently completed a P3 project

FY2021 Q2

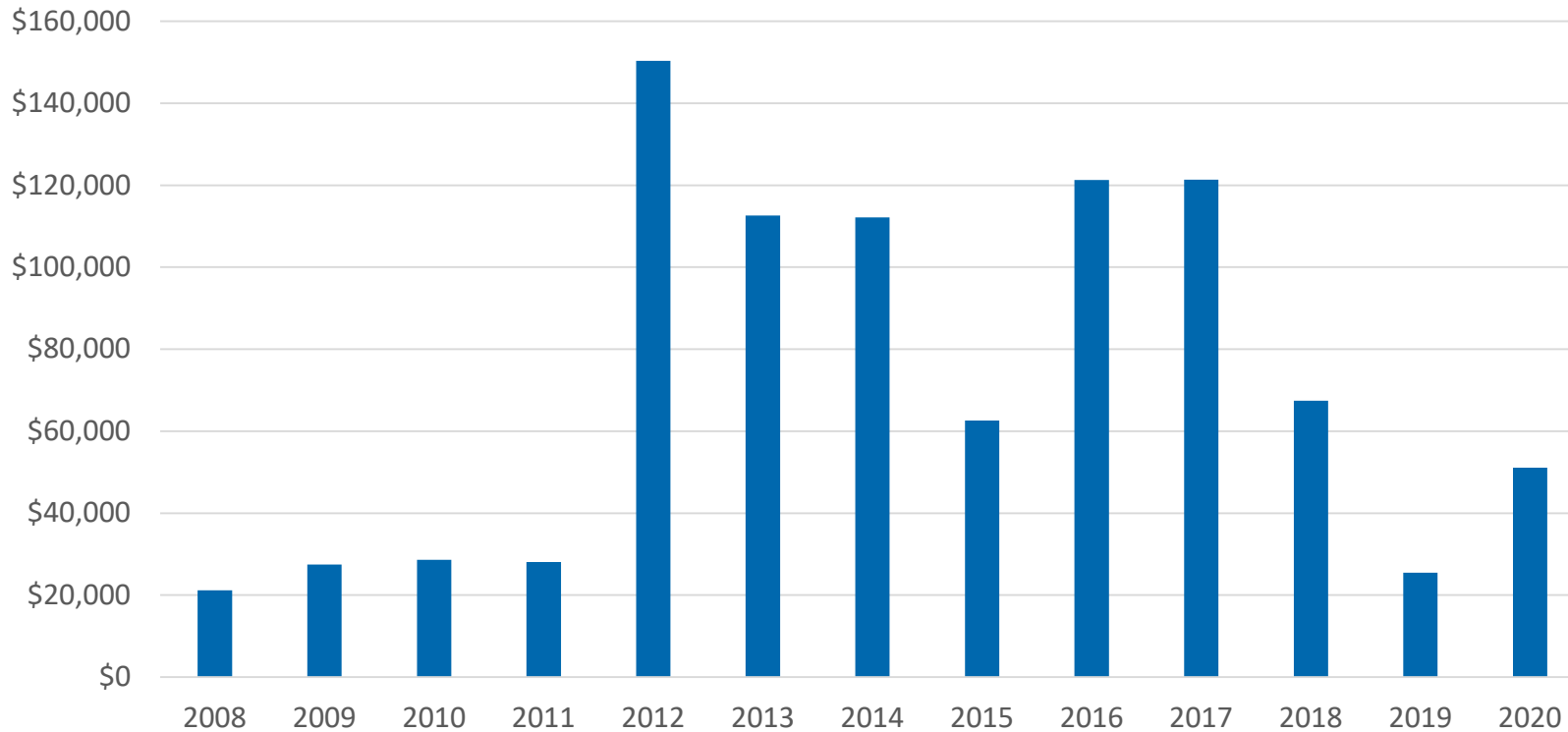
Funding Source	Vote 1	Vote 2	Total BOT Approved	% Total
University - Local Funds	26,340,000	146,415,729	172,755,729	11%
University - External Funds	-	33,765,375	33,765,375	2%
University - Borrowing	37,250,000	871,900,706	909,150,706	57%
State Funding	-	117,960,391	117,960,391	7%
P3	-	355,069,909	355,069,909	22%
TOTAL Approved Projects	63,590,000	1,525,112,110	1,588,702,110	



Flat or Declining State Capital Appropriations

An average annual State contribution of \$71.5M since 2008, coupled with campuses reaching their debt capacity, makes the University's ability to tackle its deferred maintenance backlog challenging.

Dollars in thousands



SOURCE: Audited financial statements

Debt Capacity

As a result of UMass' efforts to reduce deferred maintenance, debt capacity at the campuses is constrained as they approach the board-approved 8% cap.

FY2021 Q2						
Debt Burden Ratio	FY16 Actual	FY17 Actual	FY18 Actual	FY19 Actual	FY20 Actual	FY21 Budget
UMA	6.4%	6.6%	6.8%	6.5%	6.4%	7.2%
UMB*	4.9%	5.9%	6.3%	6.9%	7.5%	8.6%
UMD**	8.4%	7.8%	7.6%	7.8%	7.7%	8.6%
UML+	7.5%	7.3%	7.4%	7.3%	6.8%	7.9%
UMMS	5.2%	6.0%	5.1%	5.5%	4.9%	4.7%
Total	6.2%	6.6%	6.5%	6.6%	6.2%	6.9%

Sources: FY20: FY20 actuals; FY21: FY21 operating budget; FY22-25: December 2019 Financial Forecast Refresh

*SDQD Scenario A

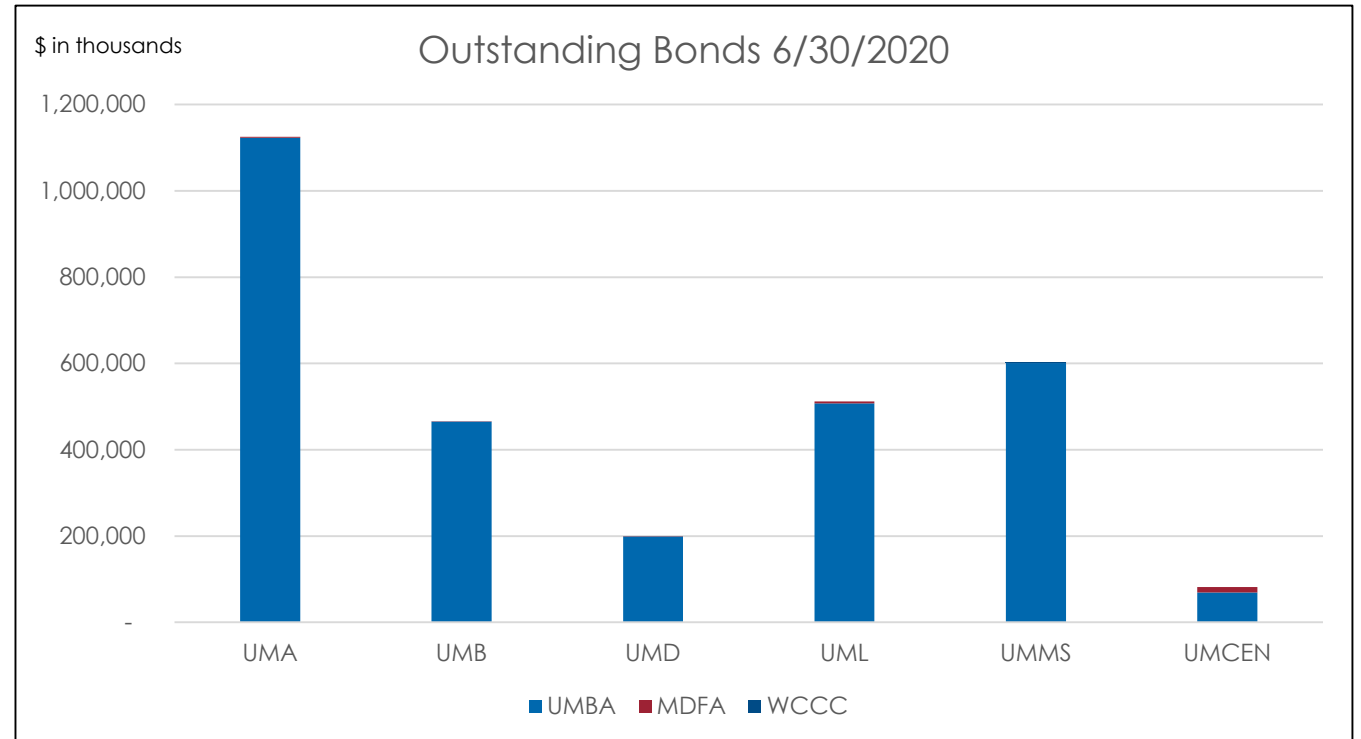
**Assumes full year of debt service for SENG borrowing in FY21; will be adjusted based on final structure of new issuance.

+Assumes level debt service for 2020 borrowing starting in FY21; will be adjusted based on final debt structure.

- The University's financial projection has been updated to reflect all borrowing needs including approved projects and future borrowing needs.

University Outstanding Debt

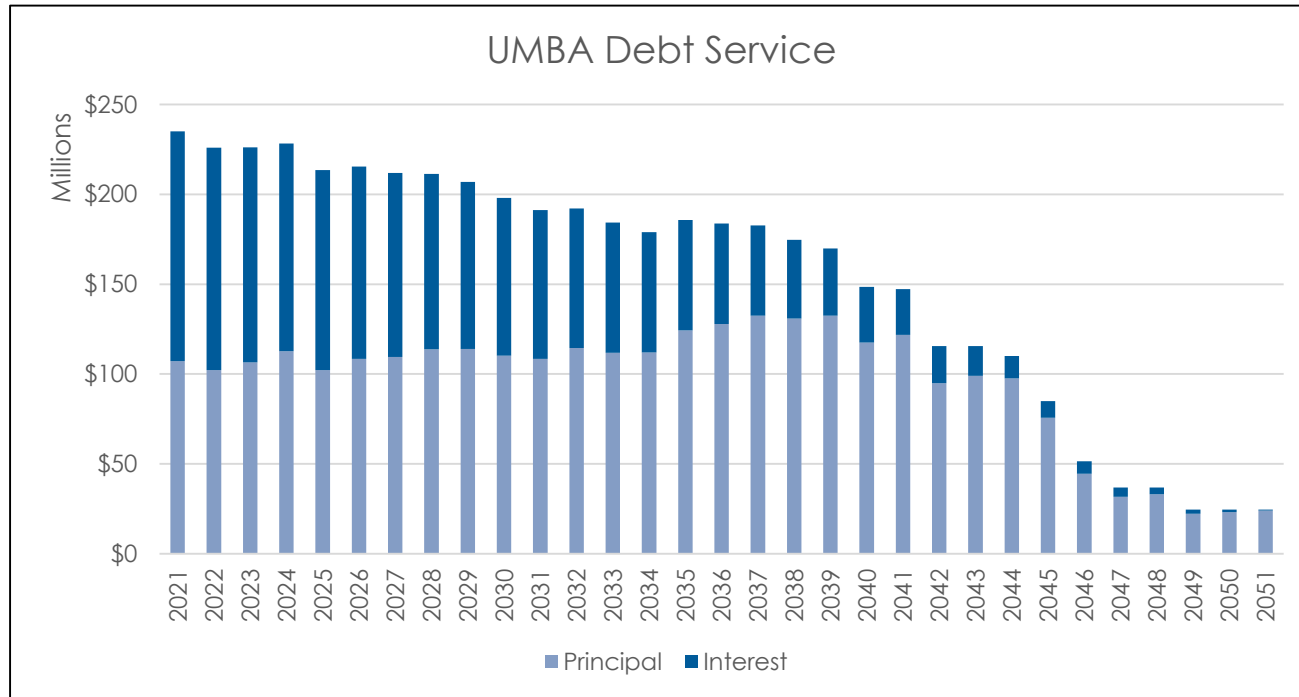
- The University had \$3.0 billion in outstanding debt as of 6/30/2020
- University debt consists of University of Massachusetts Building Authority (UMBA) bonds, Massachusetts Development Finance Agency (MDFA) bonds, & Worcester City Campus Corporation (WCCC) bonds:
 - UMBA principal = \$3.0 billion
 - MDFA principal = \$20.7 million
 - WCCC principal = \$475.0 thousand



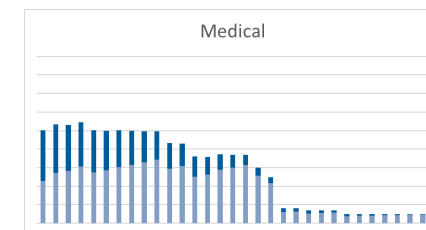
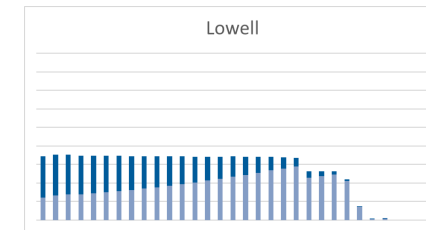
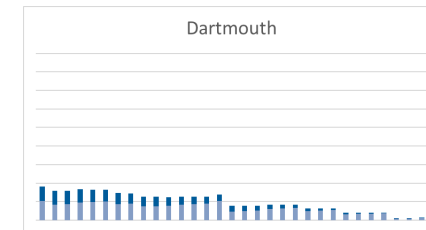
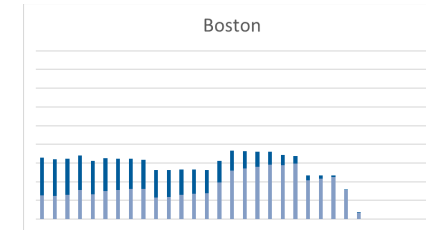
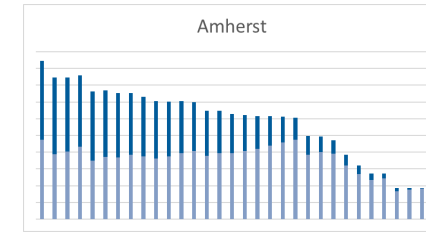
*Outstanding long term debt includes principal only; does not include unamortized premium or capital leases.

University of Massachusetts Building Authority Bonds

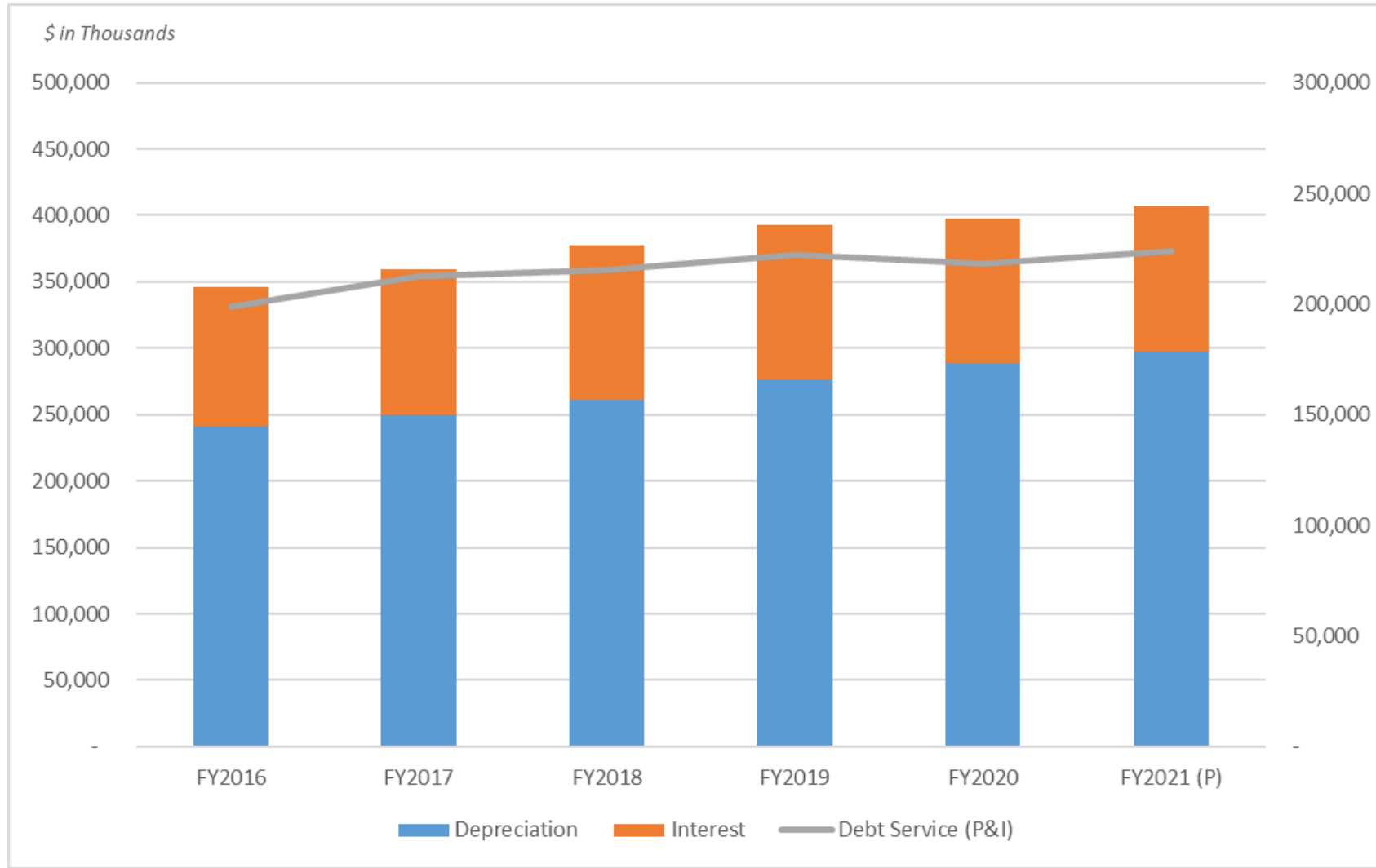
- UMBA debt profile as of June 30, 2020 totals \$3.0 billion
- 51.7% of outstanding UMBA bonds are payable within 14 years



*Does not include outstanding MDFA/WCCC debt



Depreciation & Interest



#6. Key Financial Ratios & Peer Analysis



University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

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

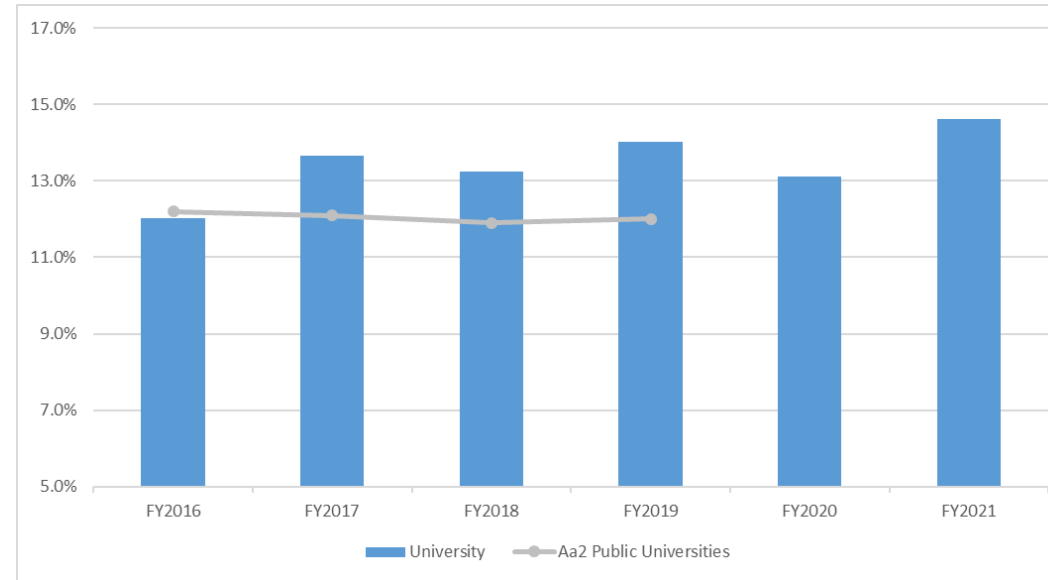
Highest



Lowest

Operating Cash Flow Margin

UMass' average ratio of 14.6% reflects improved financial performance and is higher than the median peer ratio of 12%

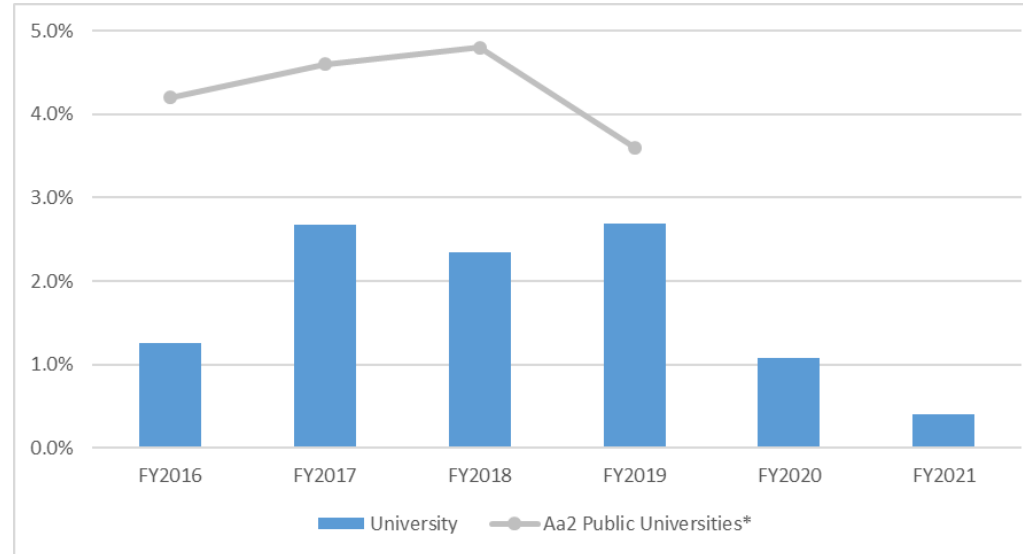


	Actual					Budget	Q1 Projection
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Amherst	15.6%	14.8%	14.8%	14.6%	12.9%	13.2%	13.3%
Boston	5.4%	7.1%	9.0%	11.2%	13.2%	14.4%	14.1%
Dartmouth	12.1%	13.9%	10.6%	12.8%	12.2%	11.5%	12.3%
Lowell	12.8%	14.6%	14.3%	14.7%	13.1%	14.4%	15.3%
Medical	8.7%	12.8%	11.5%	13.7%	12.6%	10.4%	10.8%
Central	17.0%	17.7%	17.5%	12.0%	7.0%	5.2%	7.0%
University	12.0%	13.7%	13.3%	14.0%	13.1%	13.6%	14.6%

Excludes impact of GASB 68 & 75

Operating Margin

Each campus has been required to build to a 2.0% margin by the end of FY23. Prior to the pandemic, several campuses achieved 2% sooner. Peers compare at 3.6%.



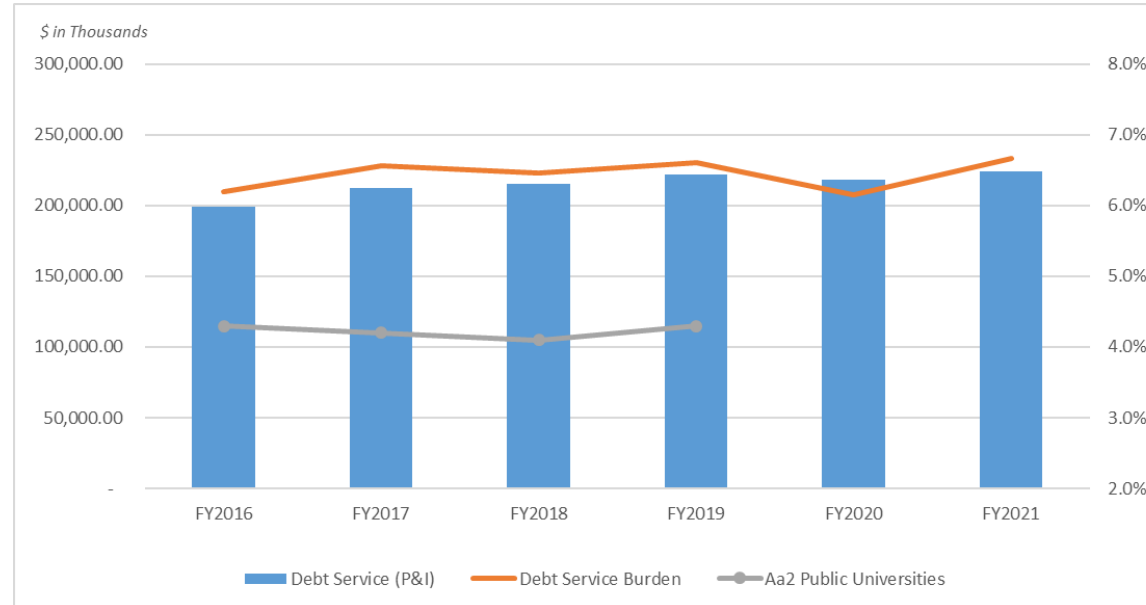
*Moody's OM calculation which uses normalized investment income

	Actual					Budget	Q1 Projection
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Amherst	4.1%	3.0%	2.6%	2.7%	0.2%	-0.8%	-0.4%
Boston	-1.3%	-0.7%	0.6%	0.9%	1.1%	0.0%	1.2%
Dartmouth	3.1%	3.4%	1.1%	1.4%	0.0%	0.0%	0.0%
Lowell	0.2%	2.2%	1.5%	1.3%	-0.6%	0.0%	-0.4%
Medical	-1.1%	3.2%	2.2%	3.5%	3.0%	0.5%	2.0%
Central	0.7%	6.4%	10.4%	8.9%	2.0%	0.0%	0.6%
University	1.3%	2.7%	2.3%	2.7%	1.1%	-0.2%	0.4%

Excludes impact of GASB 68 & 75

Debt Service Burden

A key measure in determining our capacity to issue debt. Our FY21 projected ratio of 6.7% is higher than our peers at 4.3%



	Actual					Budget	Q1 Projection
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Amherst	6.4%	6.6%	6.8%	6.5%	6.4%	7.2%	7.3%
Boston	4.9%	5.9%	6.3%	6.9%	7.5%	8.0%	7.2%
Dartmouth*	8.4%	7.8%	7.6%	7.8%	7.7%	8.6%	8.5%
Lowell ⁺	7.5%	7.3%	7.4%	7.3%	6.8%	7.9%	7.7%
Medical	5.2%	6.0%	5.1%	5.5%	4.9%	4.7%	4.2%
Central	3.7%	3.4%	2.8%	4.5%	3.9%	4.2%	5.2%
University	6.2%	6.6%	6.5%	6.6%	6.2%	6.9%	6.7%

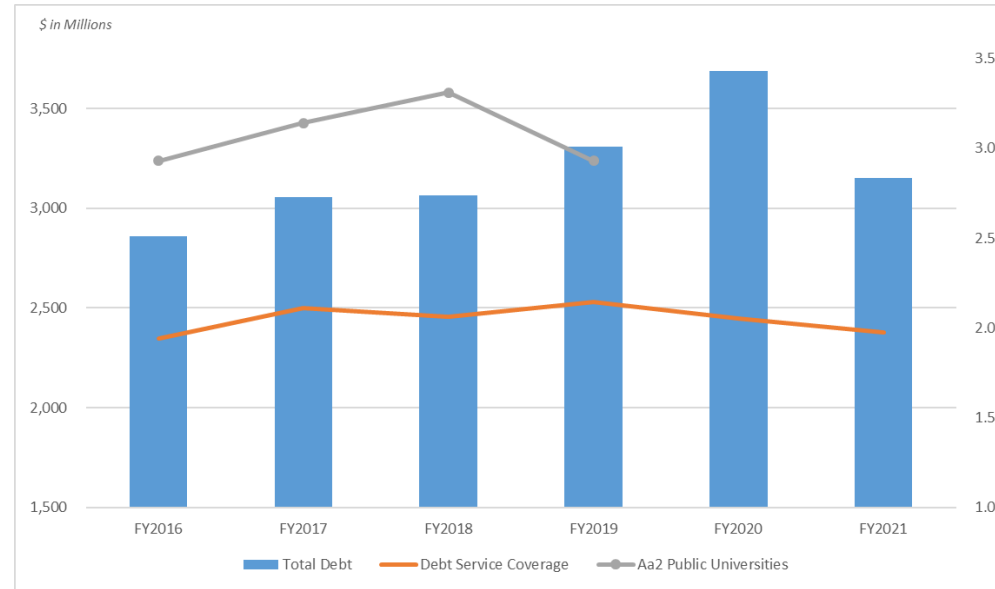
Excludes impact of GASB 68 & 75; UMA: includes new borrowing in FY21

*Assumes full year of debt service for SENG borrowing in FY21; will be adjusted based on final structure of new issuance.

+Assumes level debt service for 2020 borrowing starting in FY21; will be adjusted based on final debt structure.

Debt Service Coverage

Below Aa2 rated peers (2.9); UMass' ratio will only improve as the operating margin improves.



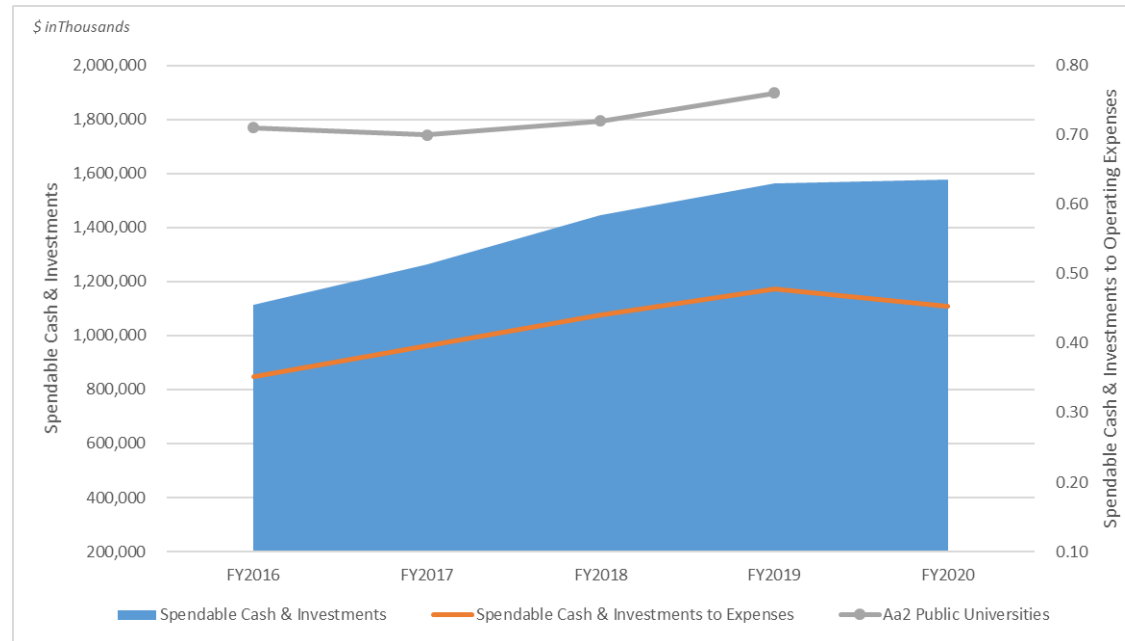
	Actual					Budget	Q1 Projection
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Amherst	2.5	2.3	2.2	2.3	2.0	1.8	1.8
Boston	1.0	1.1	1.4	1.6	1.7	1.7	1.9
Dartmouth	1.4	1.8	1.3	1.6	1.5	1.3	1.4
Lowell	1.7	2.0	1.9	2.0	1.9	1.8	1.9
Medical	1.7	2.2	2.3	2.6	2.7	2.3	2.6
Central	4.6	5.6	7.0	2.8	1.9	1.2	1.4
University	1.9	2.1	2.1	2.1	2.0	2.0	2.3

Excludes impact of GASB 68 & 75;

UMA: includes new borrowing in FY21, total debt does not include P3 financing in FY21-FY25 pending decision on deal structure

Spendable Cash & Investments

Below Aa2 rated peers (0.76); UMass' ratio will only improve as the reserve balances improve.

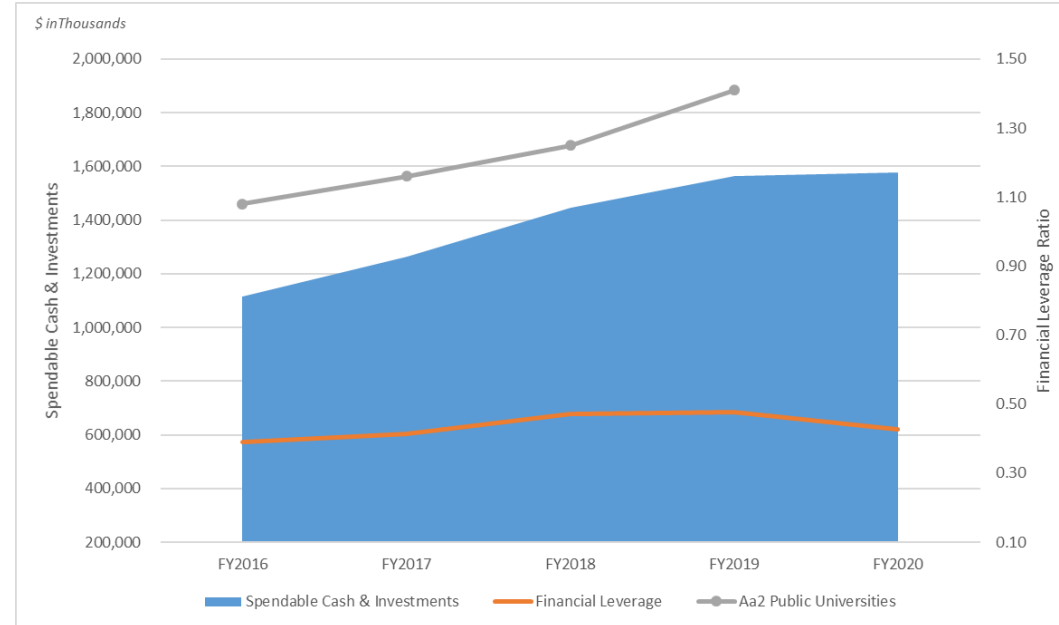


	Actual					Budget	Q1 Projection
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Amherst	0.42	0.46	0.46	0.46	0.45	TBD	TBD
Boston	0.20	0.19	0.19	0.24	0.27	TBD	TBD
Dartmouth	0.17	0.20	0.24	0.27	0.27	TBD	TBD
Lowell	0.34	0.31	0.29	0.29	0.30	TBD	TBD
Medical	0.23	0.30	0.43	0.50	0.48	TBD	TBD
Central	1.44	1.74	1.95	2.10	1.64	TBD	TBD
University	0.35	0.40	0.44	0.48	0.45	TBD	TBD

Excludes impact of GASB 68 & 75

Financial Leverage

While below peers, financial leverage is improving.



	Actual					Budget	Q1 Projection
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Amherst	0.48	0.48	0.49	0.54	0.49	TBD	TBD
Boston	0.15	0.12	0.12	0.16	0.19	TBD	TBD
Dartmouth	0.20	0.21	0.28	0.19	0.20	TBD	TBD
Lowell	0.27	0.25	0.24	0.24	0.26	TBD	TBD
Medical	0.34	0.42	0.64	0.72	0.64	TBD	TBD
Central	1.95	2.35	2.46	2.72	2.64	TBD	TBD
University	0.39	0.41	0.47	0.48	0.43	TBD	TBD

Excludes impact of GASB 68 & 75

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

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

Spendable Cash & Investments to expenses – Measures the extent to which the University can rely on wealth that can be accessed over time or for a specific purpose to operate

$$\frac{(\text{Cash \& investments} - \text{debt service reserve funds} + \text{permanently restricted pledges receivable} - \text{permanently restricted Net Assets})}{\text{Total expenses}}$$

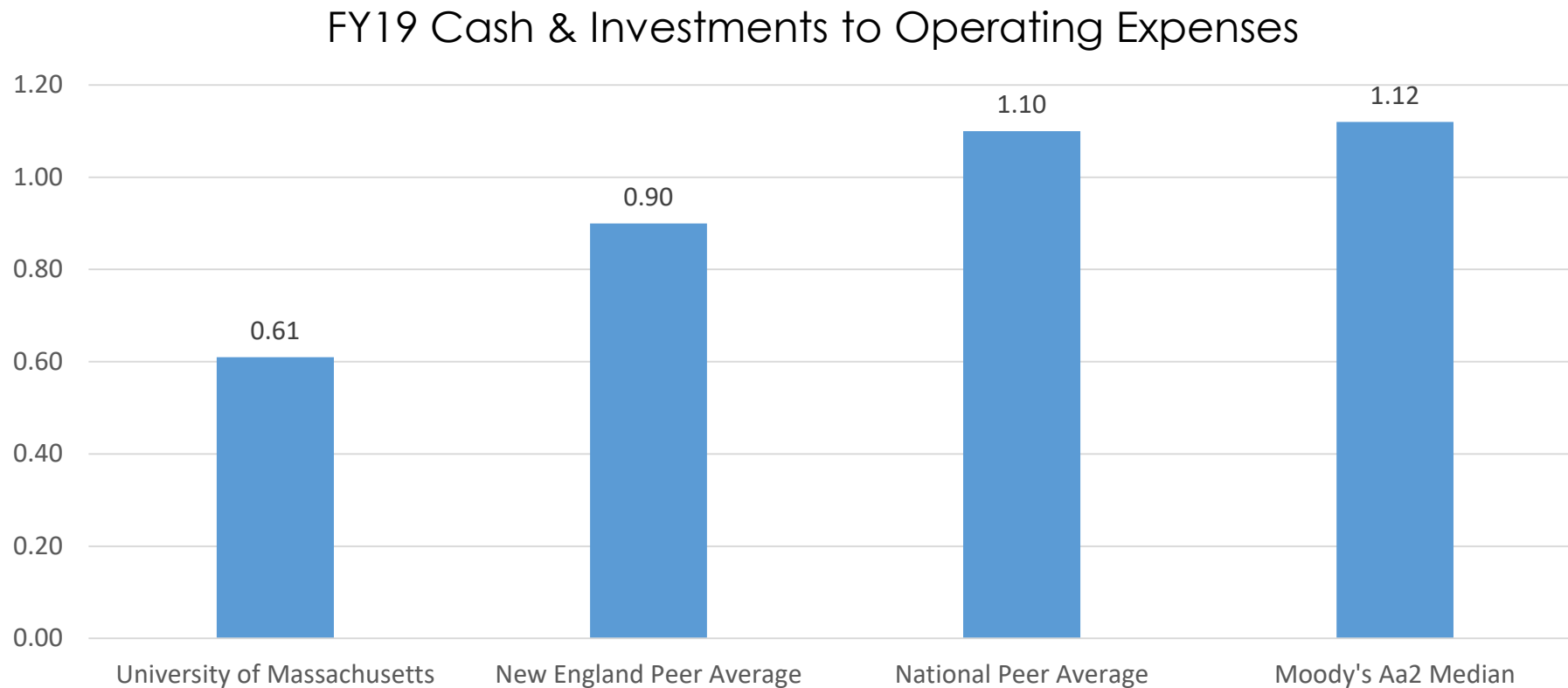
Financial Leverage Ratio – Measures the ability to repay bondholders from wealth that can be accessed over time or for a specific purpose

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

Peer Analysis

Financial Reserves Low Compared to Industry Peers

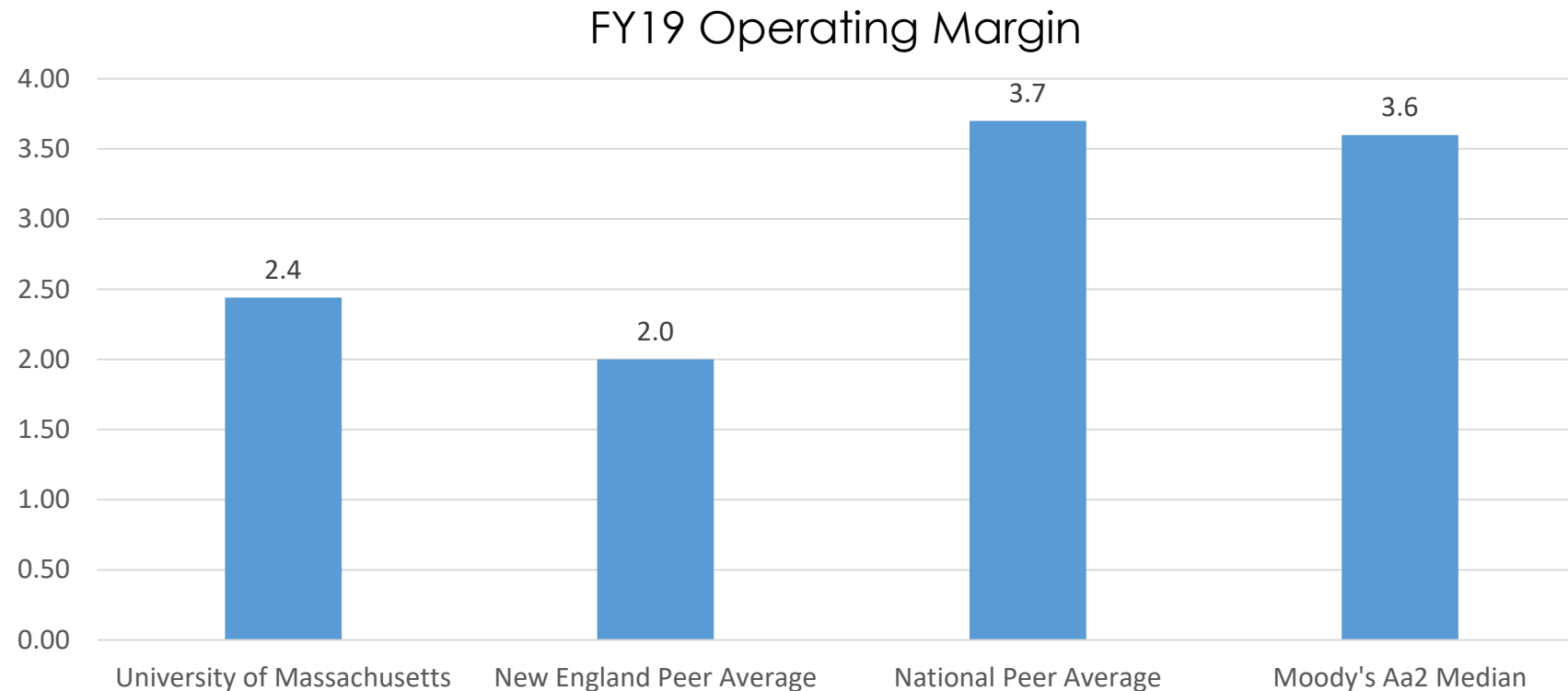
- Moody's Investors Service notes in its last rating report dated October 1, 2020 that the University has financial reserve levels that are "while adequate, will remain below peer levels when compared to both debt and operations."



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

Strong and Improved Management of Operations

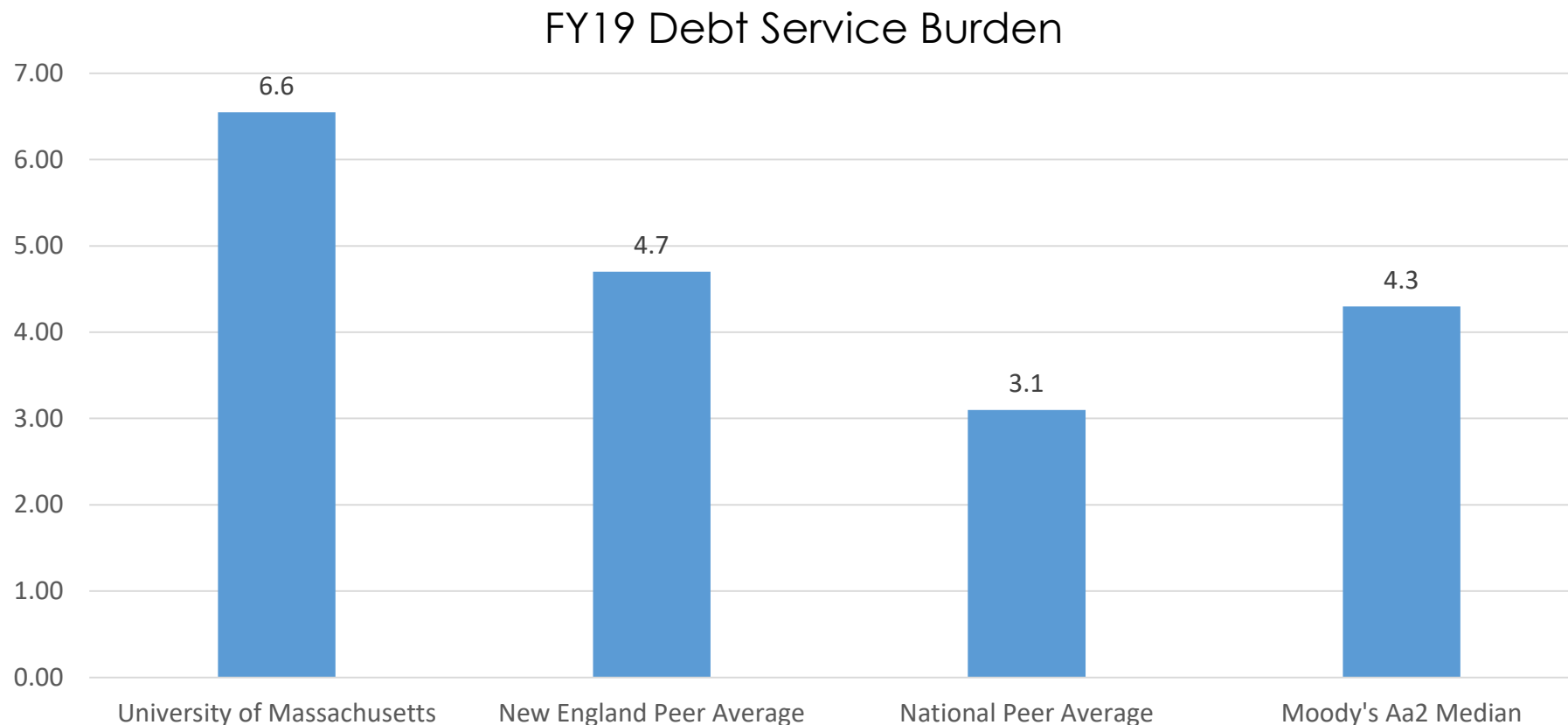
- In spite of weak financial reserves, Moody's notes strength of management for operating performance noting "improved multi-campus fiscal oversight and multiyear planning for financial stability has been essential to manage the financial disruptions associated with the coronavirus pandemic" further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



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

University Annual Debt Burden High

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



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

#7. Enterprise Risk Management



University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

What is Risk?

Risk is the possibility of an issue, event or incident occurring and impacting the ability of the University to achieve its mission, strategic goals, and objectives.

Types of risk:

- Operational: Risk affects the University's ability to implement its operations
- Health and Safety: Risk may result in physical or emotional injuries, or fatalities to students, faculty or staff
- Financial: Risk may result in loss of assets or financial stability
- Reputational: Risk affects the University's reputation, brand or both
- Strategic: Risk affects the University's ability to achieve its strategic goals
- Compliance: Risk affects compliance with externally imposed laws and regulations and/or internally imposed policies and procedures

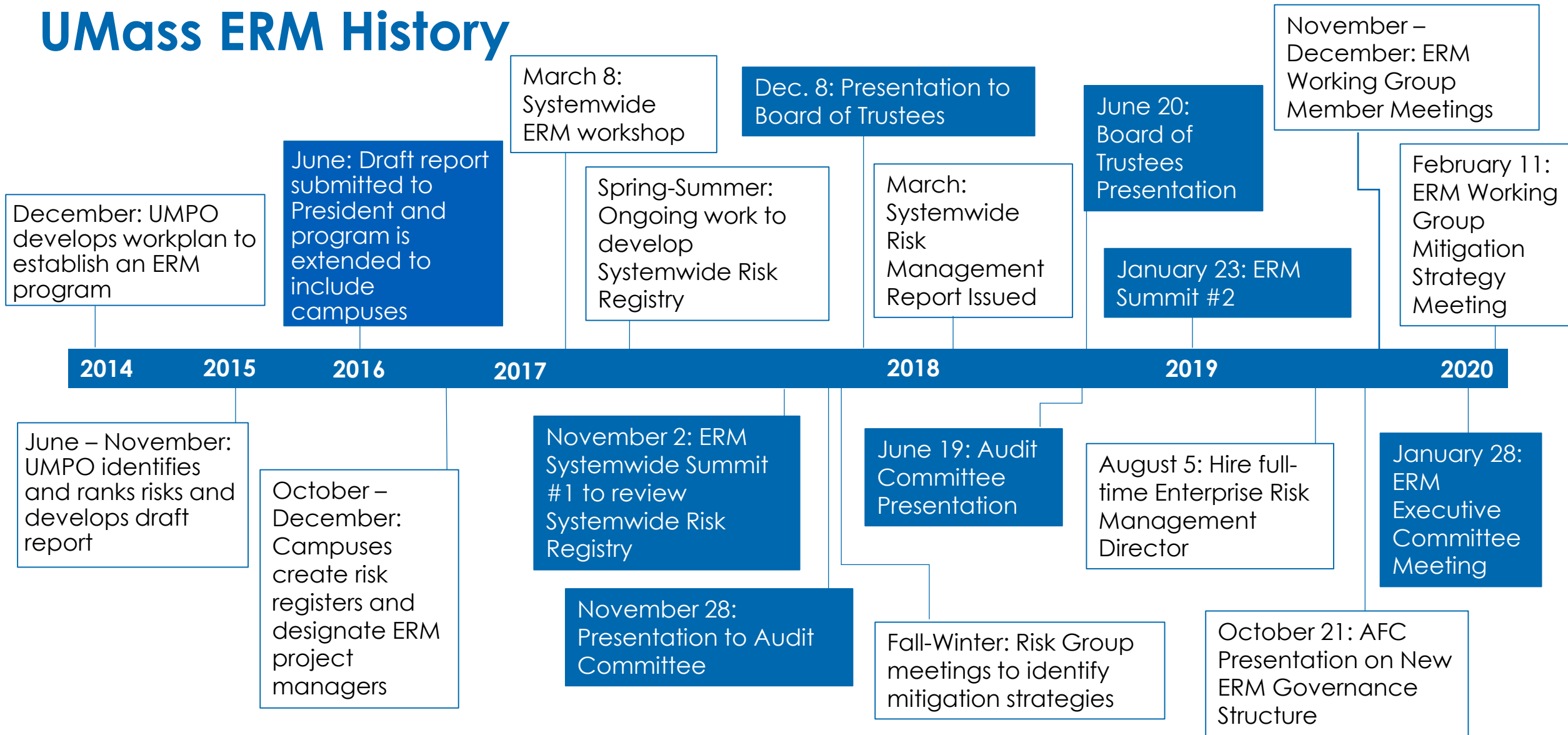
What is the University of Massachusetts Enterprise Risk Management Program?

The University of Massachusetts ERM Program guides and implements an ongoing process to:

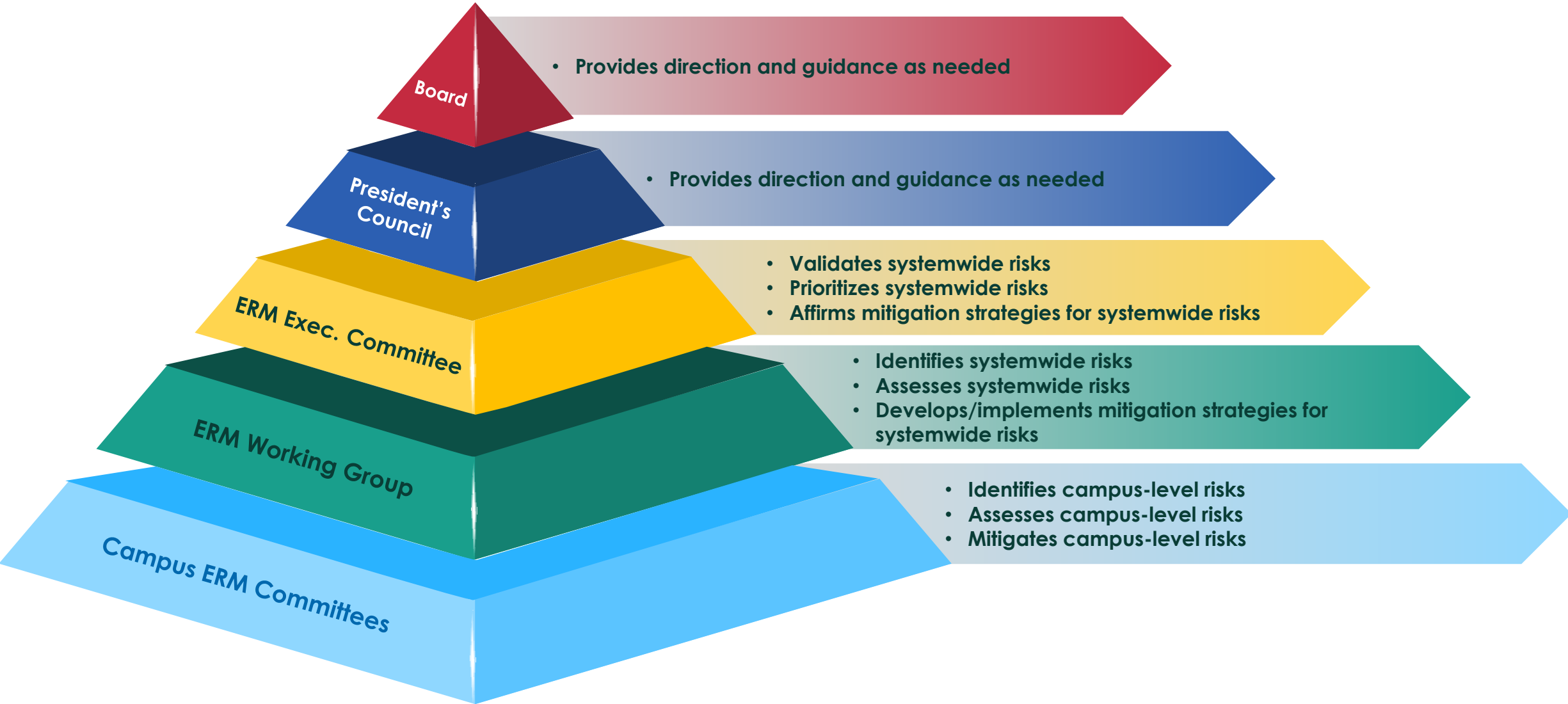
- Proactively identify risks ***across the University***
- Assess the potential impact of risks on core mission and strategic initiatives
- Prioritize risks ***across the University***
- Where appropriate, ensure implementation of actions to mitigate these risks
- Monitor risks and risk mitigation actions

The UMass ERM Program provides critical risk information to leadership across the University to enable informed decision-making about strategy, policies and programs.

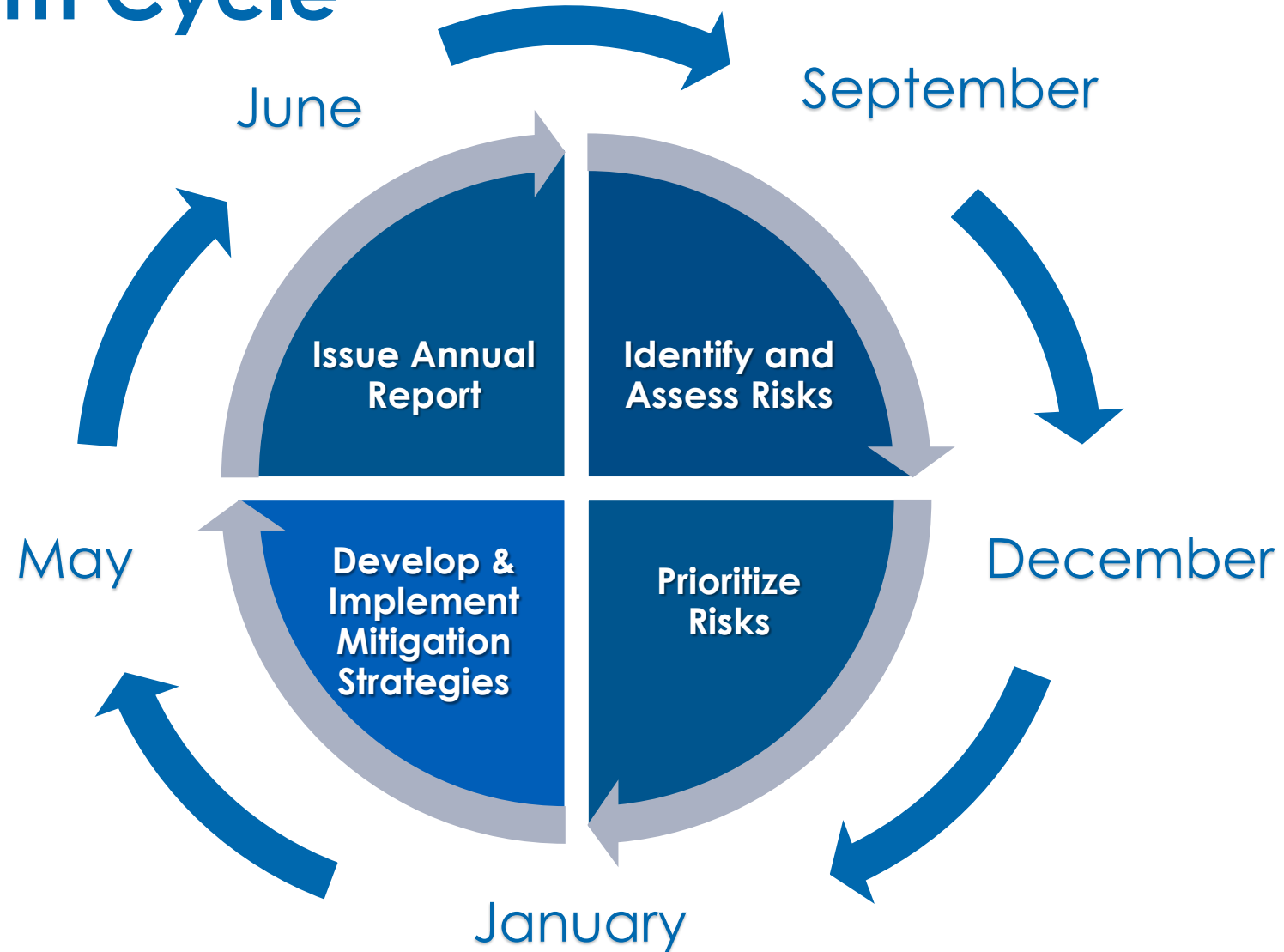
UMass ERM History



ERM Governance Structure



ERM Program Cycle



Maturity of UMass ERM Program

The University has undertaken great efforts to mature the University's ERM Program; we are currently considered at mid-range of medium-maturity, and continue to work toward becoming a highly mature program.

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 campus 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.

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



Risk Assessment

Risk assessment is the process for evaluating risk. There are three key components to the ERM Program's risk evaluation process: risk criteria, risk rating and risk score

Risk Criteria

- Risk criteria are specific aspects of a risk that are evaluated to determine how greatly a risk may affect the University. The University's ERM Program evaluates three risk criteria: impact, probability and urgency.
 - **Impact** evaluates the degree to which the risk impacts the University's operations, finances, reputation, health and safety and strategic objectives and goals.
 - **Probability** assesses the likelihood of the risk to occur.
 - **Urgency** assess the urgency with which the University needs to respond to the risk. This risk factor was added to the University's risk assessment process to enable us to better compare risks and more accurately identify and prioritize top risks. The urgency risk factor is based on the EAB's¹ best practices principal of "velocity", and has been validated by Arthur J. Gallagher.

¹EAB is an organization nationally recognized as an expert in Enterprise Risk Management

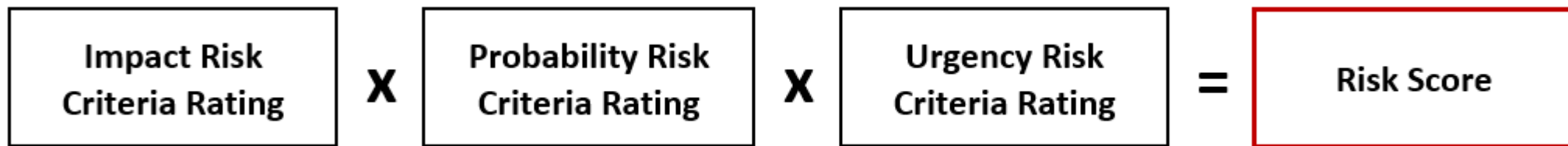
Risk Assessment

▪ Risk Rating

- The numerical value assigned to a risk criteria based on the degree to which the risk affects the University.

▪ Risk Score

- Compiles all risk criteria ratings into a single metric unit, enabling the University to better compare risks across categories and disciplines across the system, and more accurately identify top risks.
- The risk score is quantified by calculating the product of the impact, probability and urgency risk criteria ratings.



FY20 Priority Risks

Risks were assessed for impact, probability and urgency, which generated a Risk Score for each risk. Risks with a Risk Score of 100 or greater were identified as priority risks.

Rank	Risk
1	Enrollment
2	Information Security
3	Continuity Planning
4	Facilities and Deferred Maintenance
5	Radio Infrastructure and Interoperability
6	All-hazards Planning
7	Data Management

Rank	Risk
8	Financial Sustainability
9	Student Mental Health and Health Support
10	Sexual Assault Policies and Response Procedures
11	International Activities
12	Alcohol and Substance Abuse
13	Crisis Communications Coordination
14	IT Disaster Recovery

Mitigation Strategies

Risk Rank	Risk Name	Mitigation Strategies
1	Enrollment	<ul style="list-style-type: none"> • Advisory Working Group on Financial Planning analyzes enrollment trends to develop projections and inform enrollment strategies • Created real-time tracking tools for enrollment • Continue to conduct biweekly meetings with staff from budget, data management, marketing and academic affairs regarding enrollment data planning • Continue to conduct a once per semester system-wide meeting of the Vice Chancellors of Enrollment
2	Information Security	<ul style="list-style-type: none"> • Maintain comprehensive Cyber Insurance Coverage • Planned a system-wide cyber security tabletop exercise (postponed due to COVID) • Continually evaluate trends and adjust technology based on current threats • Evaluated our systems and controls against the Center for Internet Security (CIS) 20 controls, which is recognized as an industry standard • Conduct routine external penetration tests and address vulnerabilities • Real-time scanning of all systems for vulnerabilities and exploits • Completed mandatory cyber security awareness training • Continual improvement of the cyber incident management process • Addressed Zoom-related privacy issues • Reoccurring audits on information security in compliance with annual audit plan • Regular ongoing information sharing among the Chief Information Security Officers across the system

Mitigation Strategies

Risk Rank	Risk Name	Mitigation Strategies
3	Continuity Planning	<ul style="list-style-type: none"> • Campuses maintain continuity plans • Internal Audit review of Amherst and Lowell • Real-world implementation of continuity operations in response to COVID (transition to remote learning and remote workforce), including the identification of the necessary numbers of employees to maintain essential functions
4	Facilities and Deferred Maintenance	<ul style="list-style-type: none"> • Established a Capital Policy • Facilities Effectiveness and Efficiency Committee: <ul style="list-style-type: none"> • Tracks deferred maintenance with peer comparisons through work with Sightlines • Prioritizes backlog reduction in capital planning • Leverages third party funding for deferred maintenance (state, utility company incentives) • Continue to engage in efforts to amend MGL Chapter 29 §30 to allow UMass to insure any University/state owned property • Where applicable, take advantage of a recent amendment to MGL Chapter 29 §30, which allows state agencies in limited circumstances to procure property insurance. More specifically, a state agency may insure a building when property insurance is an eligibility requirement for FEMA disaster reimbursement funding.

Mitigation Strategies

Risk Rank	Risk Name	Mitigation Strategies
5	Radio Infrastructure and Interoperability	<ul style="list-style-type: none"> • Campuses met with Statewide Interoperability Coordinator for guidance • Amherst, Lowell and Medical School have funded projects to enhance their infrastructure • Boston has included a project in its five-year capital plan
6	All-hazards Planning	<ul style="list-style-type: none"> • Ongoing and continuous preparedness and planning efforts • Positioned campuses to effectively coordinate COVID response and mitigation activities
7	Data Management	<ul style="list-style-type: none"> • Hired Chief Data Strategist to help drive consistency in standards in how data is managed • Ongoing Better Together initiative which fosters alignment of data • Ongoing project to implement a system-wide UMass Integration Platform to provide more robust data management and movement capabilities • Ongoing exploration of cloud services to increase resilience of data reporting and analytics capabilities

Mitigation Strategies

Risk Rank	Risk Name	Mitigation Strategies
8	Financial Sustainability	<ul style="list-style-type: none"> • Ongoing work of the Advisory Group on Financial Planning • Established analytics <ul style="list-style-type: none"> • Created Administration and Finance Executive Dashboard • Instituted Position Management • Rolled out UM Plan system-wide to support the development of the annual budget • Implemented Five-year Financial Forecasting • Implemented Reserve Policy • Established standard ratios for all financial reporting • Developed cash flow forecasting
9	Student Mental Health and Health Support	<ul style="list-style-type: none"> • Coordinated with campuses regarding changes to the Student Health Insurance Program • Expanded international travel insurance coverage to include remote mental health services • Evaluating increased demand in wrap-around services • Continued conducting system-wide monthly meetings with the Vice Chancellors of Student Affairs, who have oversight of campus health services

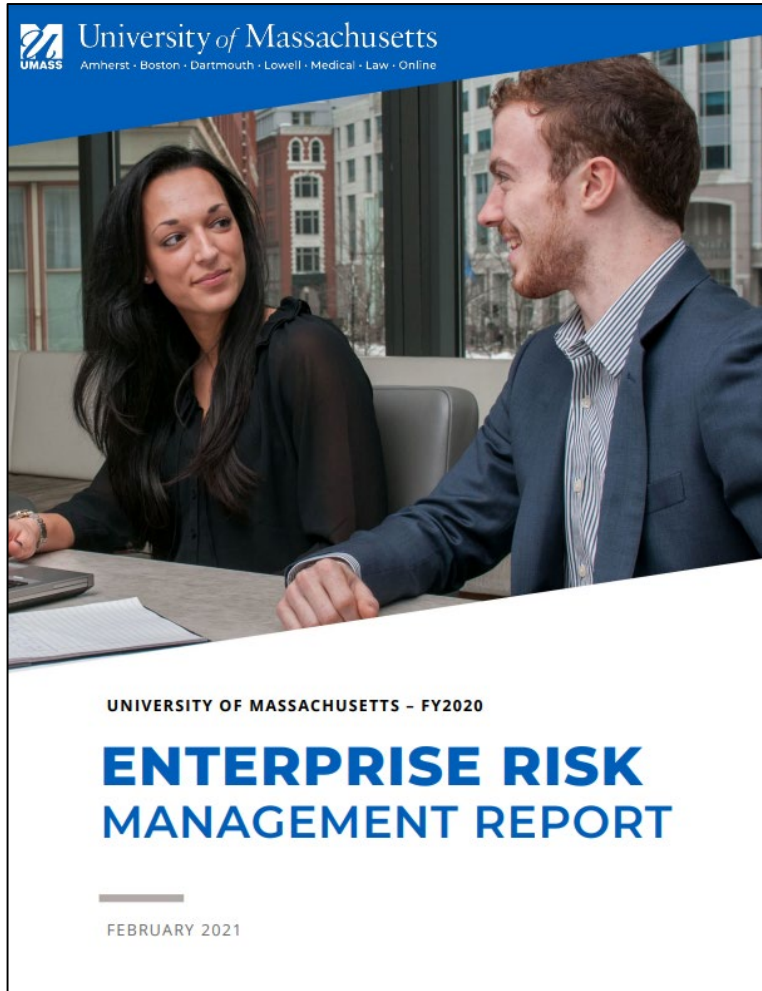
Mitigation Strategies

Risk Rank	Risk Name	Mitigation Strategies
10	Sexual Assault Policies and Procedures	<ul style="list-style-type: none"> • Coordinated with each campus to ensure administrative standards and policies were in compliance with requirements set by our insurance provider • Enabled the University to renew insurance coverage • Weekly meetings of the system-wide Title IX coordinators • Enlisted an external consultant to assist the University in adapting to the new US. Department of Education Title IX regulations
11	International Activities	<ul style="list-style-type: none"> • EY developed a Global Risk Assessment Report (tax and regulatory compliance) for the University • Implemented travel registry • Conduct ongoing bi-monthly meeting of the International Business Group • Conduct ongoing monthly system-wide meeting of campus study abroad and other international travel programs • Coordination across the system on the impacts to the University resulting from changes to immigration rules and practices • Coordination of activities related to visas for staff and students • Continued coordination across the system to enhance on export control practices and processes • Continued bimonthly meetings of the International Relational Advisory Committee (IRAC)

Mitigation Strategies

Risk Rank	Risk Name	Mitigation Strategies
12	Alcohol and Substance Abuse	<ul style="list-style-type: none"> • Conducting ongoing campus alcohol and substance abuse prevention and response programs in accordance with federal requirements • Continued conducting system-wide monthly meetings with the Vice Chancellors of Student Affairs
13	Crisis Communications Coordination	<ul style="list-style-type: none"> • Began discussions on approach to developing a system-wide crisis coordination and communications plan
14	IT Disaster Recovery	<ul style="list-style-type: none"> • Numerous back-ups and redundancies in place • Cyber Insurance Coverage • Developing tabletop exercise on data recovery • Effectively and efficiently transitioned to remote work for the majority of employees across the system • Effectively and quickly transitioned from in-person to remote learning campuses

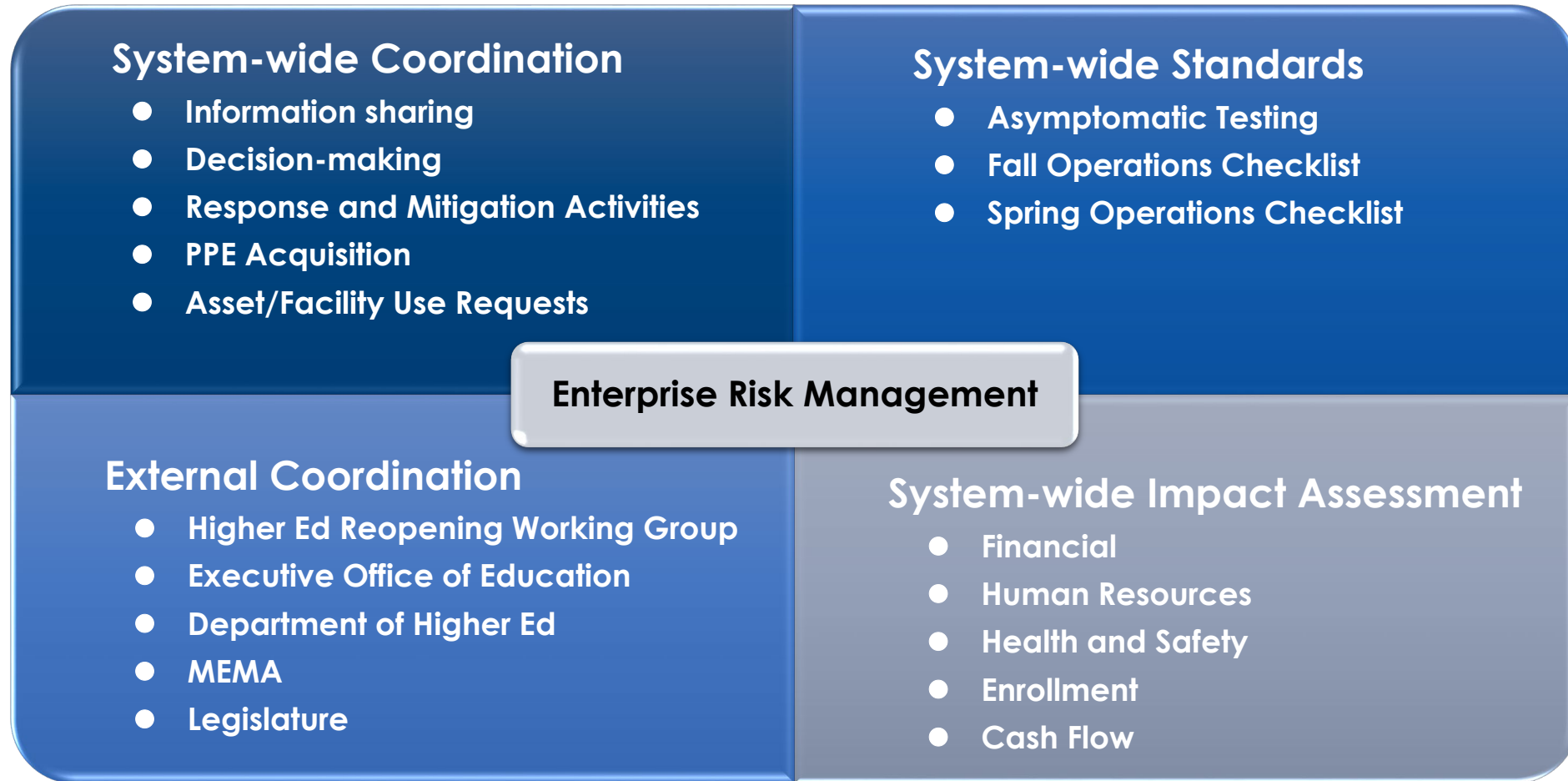
FY20 Annual Report



[The FY20 Enterprise Risk Management report can be found at this link.](#)

UMass COVID-19 Response: *Real-World Implementation of Enterprise Risk Management*

Enterprise Risk Management and COVID-19



System-wide and External Coordination

ERM facilitated coordination with stakeholders to ensure a common operating picture & inform decision-making.

■ System-wide Coordination

- Share information and collaborate on decisions
- Coordinate on:
 - Response and mitigation activities
 - Acquisition of personal protective equipment
 - Requests from external partners for use of facilities (field hospitals) & other assets (PPE, equipment)

■ External Partners Coordination

- Serve on Higher Education Reopening Working Group
- Participate on standing calls with Executive Office of Education, Department of Higher Education, and other higher education segment leads
- Coordinate with MEMA on federal disaster declaration
- Provide legislative briefings (Joint Committee on Education)
- Coordinate with members of the Legislature on financial related matters

COVID-19 Systemwide Response Coordination

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

Coordination with External Partners

- Higher Education Advisory Group
 - Informed statewide guidance for the reopening of higher education
 - Advisory Group reported directly to the State Reopening Advisory Committee
- Conversation with Governor Baker
- State Partners
 - Regular and ongoing coordination with EOE, DHE, ANF, MDPH and MEMA
- Monitoring activities of other institutions
 - Privates, state universities, community colleges
 - Repopulation
 - Testing
 - Teaching strategies

Reopening for Fall 2020 and Spring 2021

- Development of Reopening Plan Checklist (Fall 2020 and Spring 2021)
 - Based on state and federal standards
- System-wide Asymptomatic Surveillance Testing Minimum Standards
 - Risk-based
- Weekly ongoing collaboration
 - Plan development and implementation
 - Testing programs
- Experience in fall that better enables us to operate in spring

System-wide COVID Impact Assessment

Financial

- Loss of housing, dining and auxiliary revenue
- Increased operational and response costs
- Receipt of federal stimulus dollars
- Impacts to cash flow

Human Resources

- Remote work
- Family and medical leave

Health and Safety

- COVID protocols
- PPE Needs

Enrollment

- Real-time enrollment tracking

FY20 Priority Risks and COVID-19 Response

Our work around several priority risks enabled us to more effectively respond to COVID-19

FY20 Priority Risk	COVID-19 Activities
Enrollment	New capacity to project COVID impacts on Fall enrollment
Information Security	Protocols, resources and systems in place to support remote work securely, and support the swift transition to remote learning
IT Disaster Recovery	
Continuity Planning	Real-world implementation of business continuity and opportunity to capture best practices and lessons learned
Facilities and Deferred Maintenance	Coordination around cleaning, disinfecting and air handling systems
All-hazards Planning	Real-world infectious disease response planning

FY20 Priority Risks and COVID-19 Response

Our work around several priority risks enabled us to more effectively respond to COVID-19

FY20 Priority Risk	COVID-19 Activities
Financial Sustainability	Accountability practices and coordination enabled the University to weather FY20 impacts, and plan for FY21 impacts Enabled the University to identify and implement solutions to address budget gaps These capabilities enabled the University to maintain rating agency ratings
Student Mental Health and Health Support	Real-world health response to COVID-19 and planning for mental health and health needs for Fall
International Activities	Real-world recall of staff and students from international locations
Crisis Communications Coordination	Systemwide collaboration on COVID-19 Response

#8. UMass Efficiency & Effectiveness



University of Massachusetts

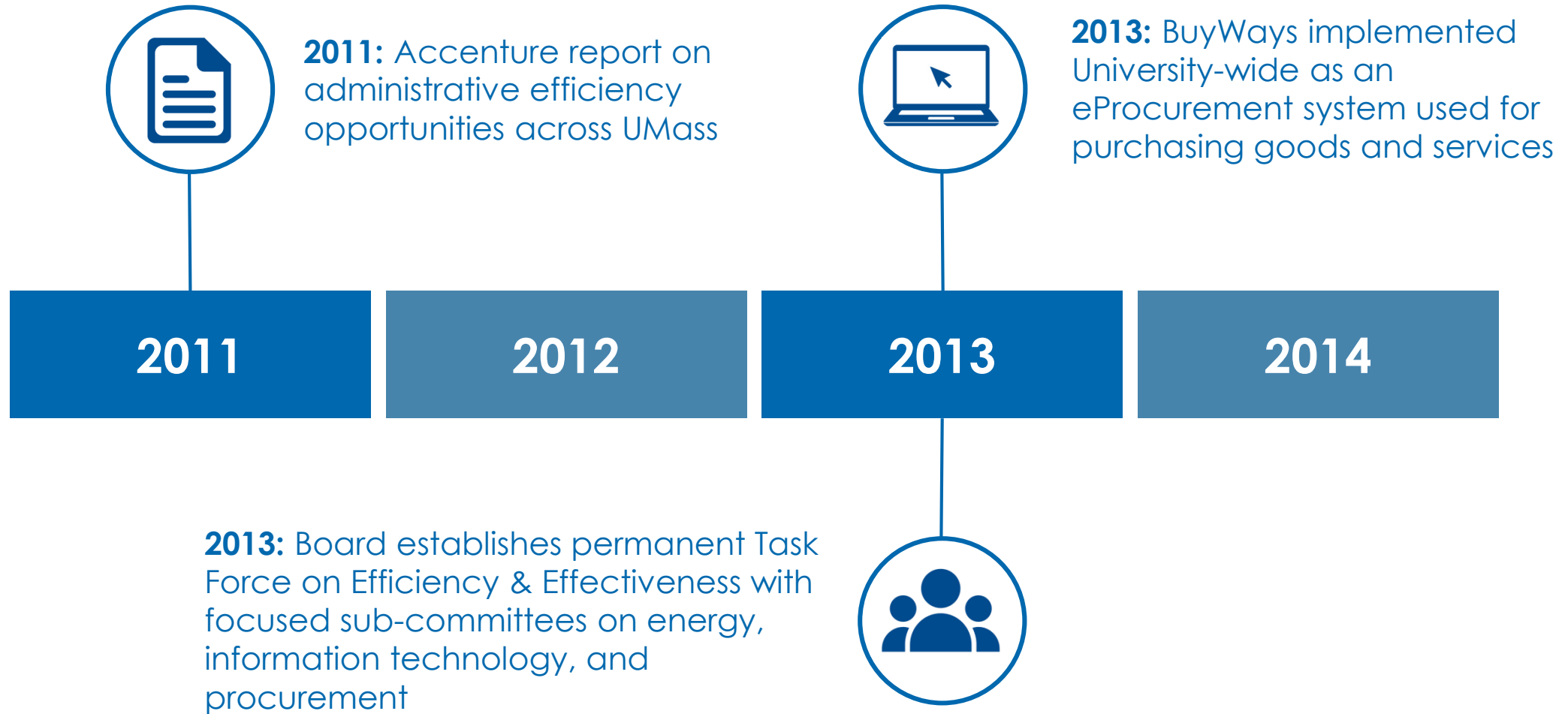
Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

Key Highlights

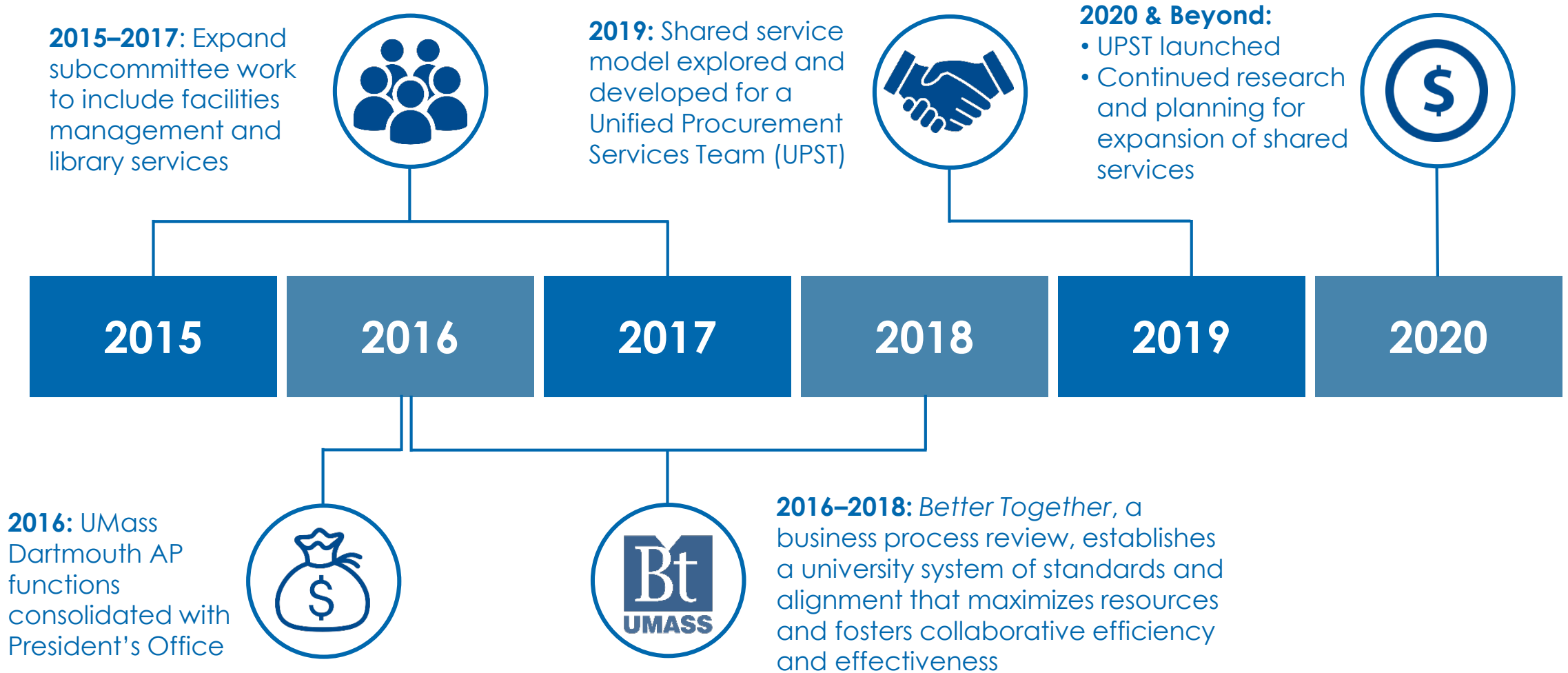
- Realized over \$99 million in total savings through 133 projects initiated from 2011 through FY2019
- Unified Procurement Services Team (UPST) responsible for system-wide procurement/accounts payable led by a Chief Procurement Officer launched in January 2020
- \$18.5 million in cost savings achieved through 94 initiatives across all five campuses since launch of UPST
- To continue achieving its mission of providing “better, faster, cheaper” services to the University, the UPST has developed a robust pipeline of process improvements and cost savings projects
- Committed to pursuing innovative shared services models to manage operations and deliver a world-class education to our students

Legacy of E&E Efforts

Timeline of E&E Efforts



Timeline of E&E Efforts



Cost Savings and Reductions: FY11 - FY19

Over the past 7 years, UMass projects \$99 million in cost savings from efficiency and effectiveness efforts.

- Spending reduced by \$22.3 million – cost avoidance totaled \$77.5 million
- Re-investment into student programs and services that improve academic quality
- Goal to accelerate the pace through re-alignment of the organization and enhanced operational efficiencies



\$99.8 million
cost savings
FY2011 to FY2019

E&E Achievements Prior to UPST

UMass has realized over \$99 million in total savings through 133 projects initiated through FY2019

(\$ in Thousands)	# Projects	Cost Reductions	Cost Avoidance	Total Savings
Energy & Sustainability	33	\$12,975	\$36,442	\$49,417
Purchasing Initiatives	25	\$6,507	\$17,407	\$23,914
IT Initiatives	72	\$2,834	\$16,829	\$19,662
Facilities	2	\$0	\$6,200	\$6,200
Library	1	\$0	\$656	\$656
Total	133	\$22,316	\$77,534	\$99,849

Note: legacy projects only include those with system-wide impacts

UPST: Origins and Success

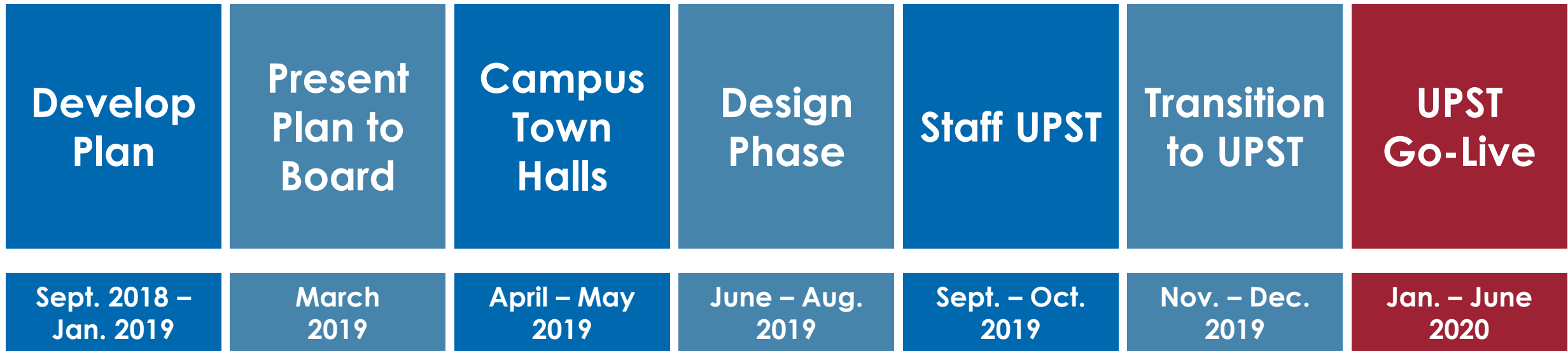
Shared Services: Background

The Shared Services project was launched in 2018 at the request of President Meehan with the support of the Board to assess the potential of a shared services model at UMass

- Key Objectives Identified
 - Evolve A&F organization providing world-class service across the entire system
 - Modernize functions to provide services at lower cost
 - Re-invest savings back to academic programs and ensuring continued affordability
 - Further demonstrate UMass is operating efficiently and effectively
- Building on momentum of past initiatives:
 - 2011 Procure-to-Pay Study
 - Business Process Review (BPR)
 - Efficiency & Effectiveness Taskforce (E&E)
- Delivered comprehensive plan January 2019 outlining development of procurement shared services:
 - Establish UPST responsible for system-wide procurement/accounts payable led by a Chief Procurement Officer (CPO); providing services to all campuses
 - Governance structure to ensure strong campus / vendor customer relationships
 - Measure and report results against identified Key Performance Indicators (KPIs)

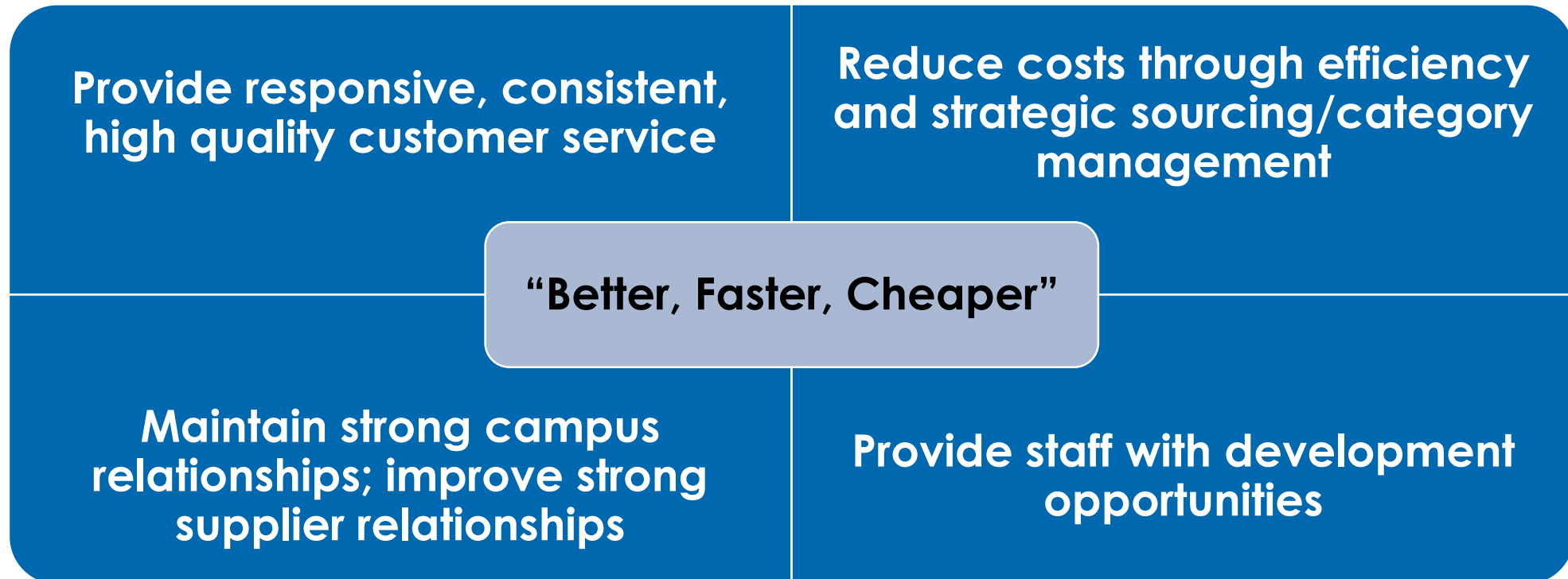
UPST Timeline

Engagement with campuses and all stakeholders a constant during development of UPST



UPST Goals and Objectives

Key Objectives



UPST Objectives Driving Achievements

Process Enhancements (BETTER)

Strategies Identified:

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

Tactics Achieving Objectives:

- Coordination of remote learning/ work, PPE, and surveillance testing products & services procurement activities
- Capital spend suspension
- Pre-authorization spend control process (AtP)
- Campus specific decrease in spending limits

Ease of Administration (FASTER)

Strategies Identified:

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

Tactics Achieving Objectives:

- Bank Card program (consolidated 6 programs)
- Automated supplier registration (self-service) process for new suppliers
- Payment process streamlining i.e. direct payment and invoice approval workflow roll-out
- Automated grants approval process

Cost Discipline (CHEAPER)

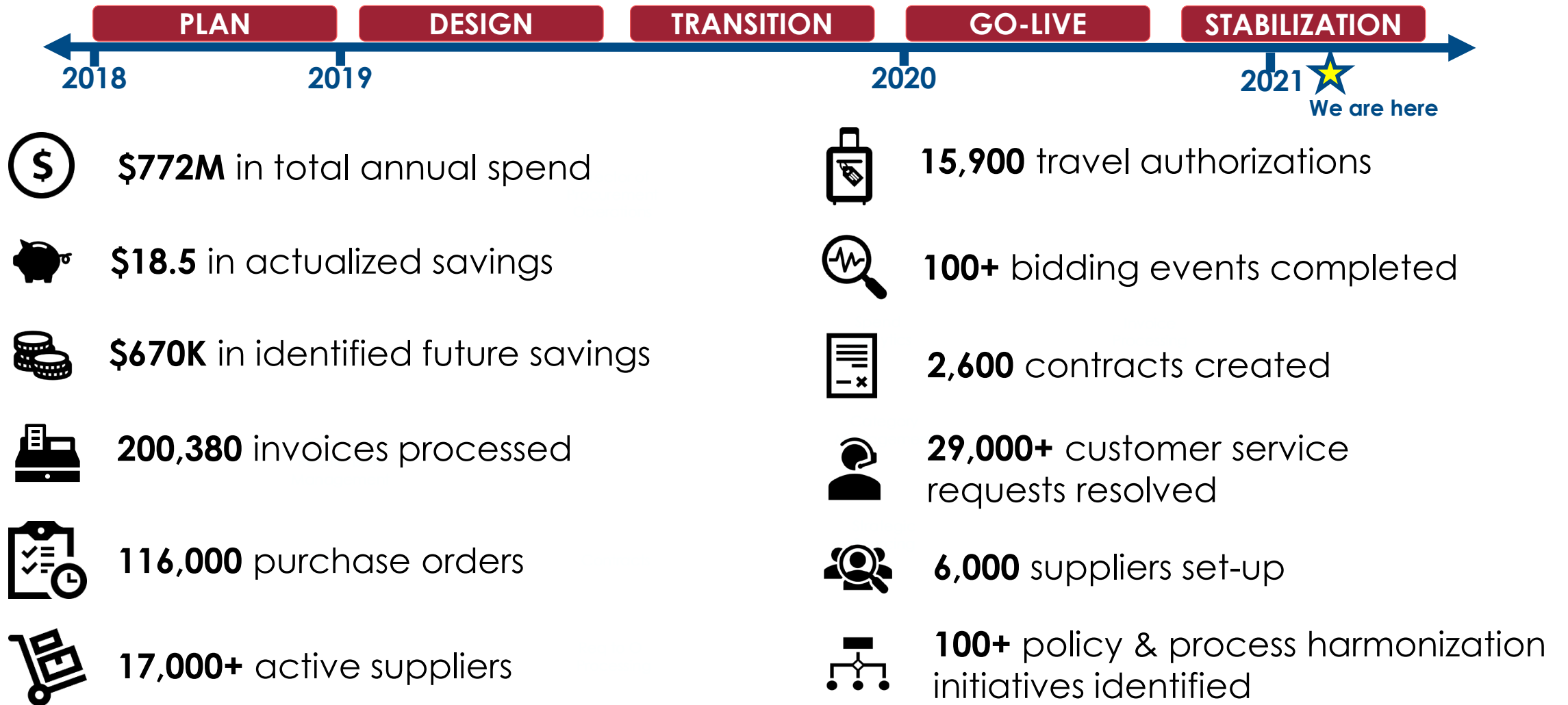
Strategies Identified:

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

Tactics Achieving Objectives:

- Continued drive for system-wide contracts
- 40 active supplier punch-out catalogs (7 more in the pipeline)
- Data driven sourcing activities

2020 by the Numbers



Cost Savings and Reductions

Since January 2020 savings achieved through over 94 initiatives across all five campuses

- Spending reduced by \$11.5 million in FY20; achieved \$15.3 million through December 2020
- Cost savings demonstrates results of various strategies:
 - \$12.1 million in cost reductions
 - \$13.4 million in cost avoidance
 - \$1.4 million in revenue generation
- Accelerate the pace of savings achieved as UPST implements tactics and enhances operational efficiencies



\$26.9 million
cost savings achieved
since launch of UPST

Cost Savings Details

Tracking savings increases in FY21 as UPST celebrates one year of operations

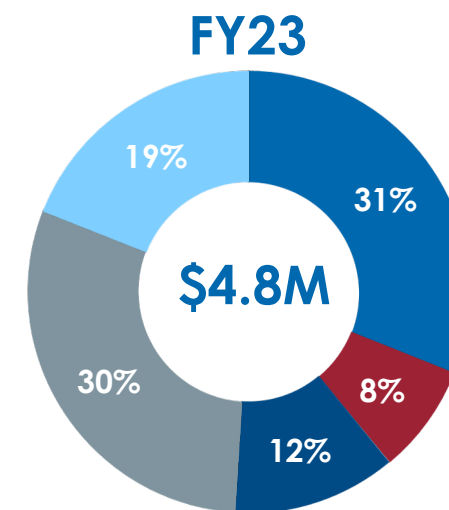
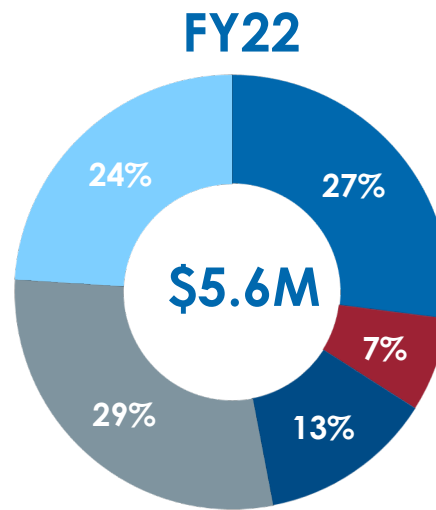
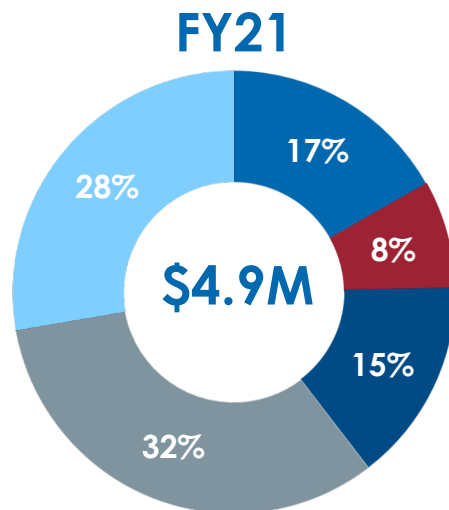
Spend Category	FY20 Savings	FY21 Savings(1)	Total Savings
Capital	4,456,739	2,811,763	7,268,502
General Services & Supplies(2)	1,479,612	3,346,193	4,825,805
IT/Telecom	1,855,790	2,418,008	4,273,798
Marketing & Advertising	-	623,342	623,342
Maintenance, Repair, Operations	232,963	17,410	250,373
Professional Services	21,834	1,245,249	1,267,083
<i>Subtotal</i>	<i>8,046,938</i>	<i>10,461,965</i>	<i>18,508,903</i>
Energy(3)	3,526,000	4,900,000	8,426,000
Grand Total	11,572,938	15,361,965	26,934,903

FY20 Energy Sourcing

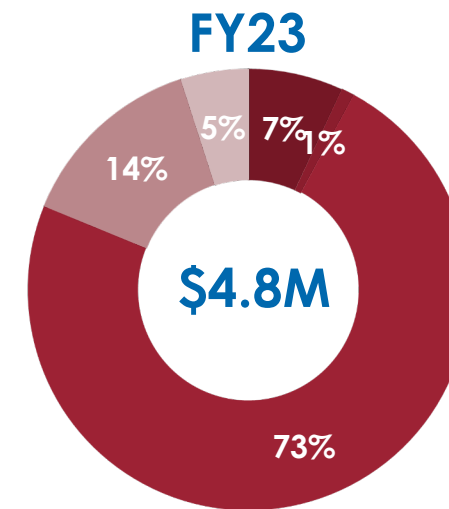
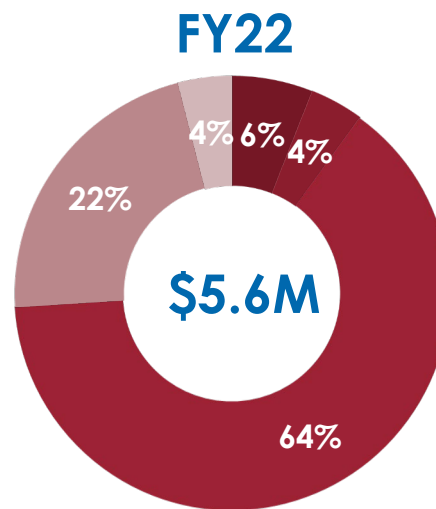
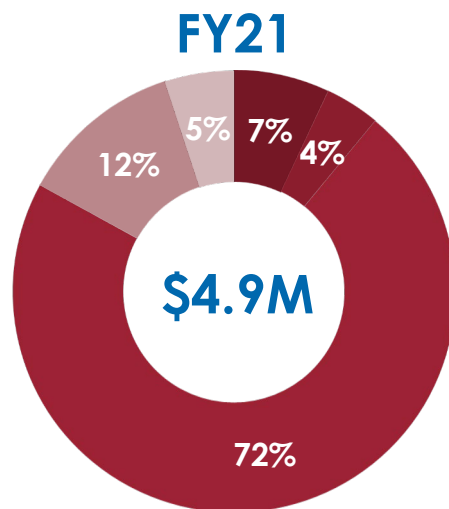
Locking in rates at historic lows in the market will impact FY21, FY22 & FY23*

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

FY21



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

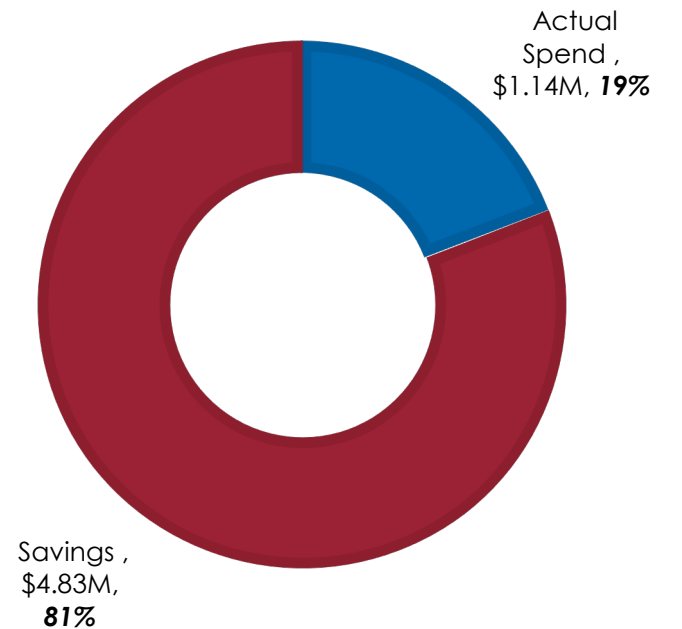


General Services & Supplies

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

Project	Total Savings
Transportation Contract Adjustments	4,200,000
Contract Renegotiation with On-line Journals Provider	327,593
Pouring Rights Project	178,600
Revenue Generated from a Food & Beverage Contract	78,600
Animal Medicine Protective Clothing	18,340
Water Tunnels Project	17,845
Room Darkening Shades	4,827
Total	4,825,805

CATEGORY SAVINGS IMPACT
BASELINE SPEND (\$5.97M)



General Services & Supplies: Project Spotlight

Librarians Collaborate to Reduce Costs: Contract Renegotiation with On-line Journals Provider

In 2020, UPST engaged with the Library Directors of all five campuses to enter into negotiation with major supplier of academic journals to the UMass Library system. As a category, journals are proprietary with limited to no competition. Through evaluation of existing contracts, refining the portfolio and eliminating non-value added services as well as negotiating price as a single entity, the collaboration between UPST and the Library Directors resulted in \$327k in cost reduction.

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

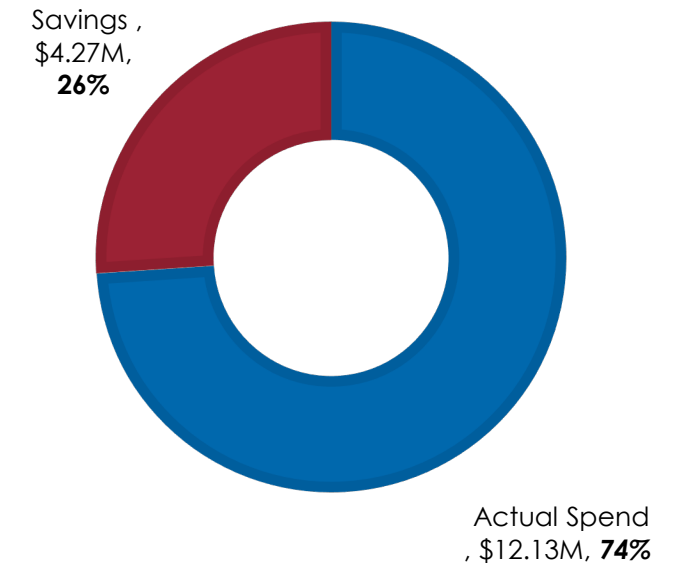
Long before the current COVID pandemic, the UMass Office of General Counsel included contract provisions protecting the University's interest in the event of a "pandemic." When UMass Boston campus had to shut down, they were left with a multi-million dollar shuttle bus contract that was no longer necessary.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

Information Technology

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

Project	Total Savings
Network Maintenance - Additional Services	1,000,000
Hardware Provider MSA Negotiation	773,000
ERP (Financial) System License Negotiation	454,119
Network Maintenance	440,000
Amherst Network Switch Maint. Cost Savings	423,789
Procurement System Contract Renewal	391,392
Digital Storage System Negotiation	165,000
Lecture Capture Platform Negotiation	129,000
All Other Projects - Under \$100K	497,498
Total	4,273,798

CATEGORY SAVINGS IMPACT
BASELINE SPEND (\$16.4M)



Actual Spend: lowest 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 to be reported)

Information Technology: Project Spotlight

Leveraging Vendor Relationships: ERP (Financial) System License Negotiation

In 2020 UPST engaged University Information Technology Services (UITs) to negotiate with the provider of our core Enterprise Resource Planning (ERP) system. Without impacting services or service levels, the team was able to reduce our annual contract cost by \$450k

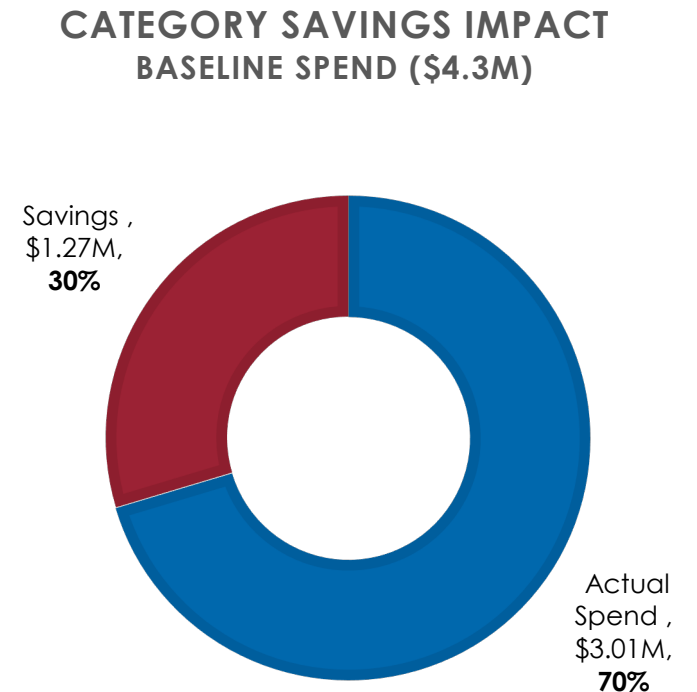
Strong Partnerships return strong cost reductions for remote learning: Lecture Capture Platform Negotiation

With the shift to remote learning in 2020, the need for technologies that foster active, engaged, and personalized video-based learning was greater than ever. The five campuses share a common lecture capture platform that allows the faculty to record and publish lectures to the web. UPST engaged with the supplier, who had been a partner with UMass since 2010, collaborating with their senior leadership to reduce UMass' cost, without impacting service, resulting in over \$129k in reductions.

Professional Services

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

Project	Total Savings
System-wide COVID-19 Testing	755,000
Admin Staff Review for CNS	297,200
Property Recovery	124,644
Costello Athletic Center Branding	67,705
Pest Services	16,833
Courier Services	4,000
Carpet Replacement	1,001
Development of on-line ordering platform	700
Total	1,267,083



Actual Spend: lowest 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 to be reported)

Professional Services : Project Spotlight

Ensuring COVID Testing Resources for Our Campus Community: System-wide COVID-19 Testing

In 2020, with the rapidly growing need for COVID testing, UPST supported a multidisciplinary group, including the Office of General Counsel, Enterprise Risk Management, Campus Administrative and Academic leadership to engage the Broad Institute to secure COVID testing for students, faculty and staff, resulting in over \$750k in savings.

Turning over every stone to return value back to UMass: Property Recovery

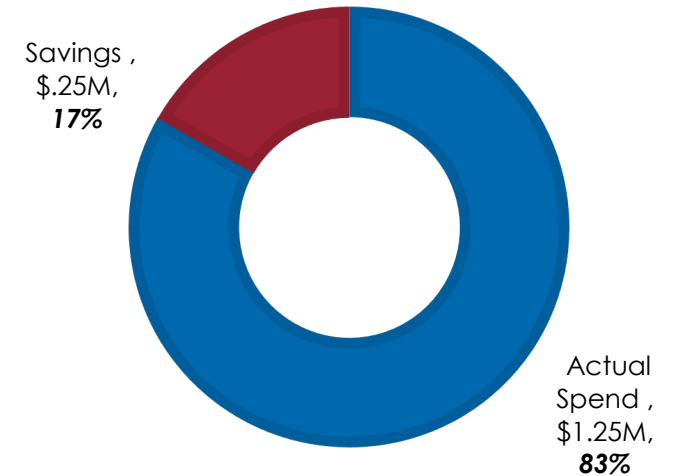
With approximately 240,000 payments to suppliers per fiscal year, there will certainly be occasions where suppliers inaccurately bill the University or credits go unclaimed. UPST worked with suppliers to conduct a through review of statements and invoices, as well as with the Commonwealths abandoned property office to identify and claim \$124k in funds owed to the campuses.

Maintenance, Repair & Operations

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

Project	Total Savings
Security Enhancement Services	200,139
Summer Janitorial	29,218
Statewide Water Treatment Services	17,410
Gas Chromatograph, Mass Spectrometer	3,606
Total	250,373

CATEGORY SAVINGS IMPACT
BASELINE SPEND (\$1.5M)



Maintenance, Repair & Operations: Project Spotlight

Scale and Scoping Drives Security Savings: Security Enhancement Services

In 2020, the need to close and secure areas of campus increased overnight with the demands of COVID. UPST partnered with the UMass Medical School campus to bid their third party security services. By leveraging a competitive marketplace and changes to the scope of services being provided, the process resulted in a savings of \$200k to the campus

Large or small, every dollar counts: Gas Chromatograph, Mass Spectrometer

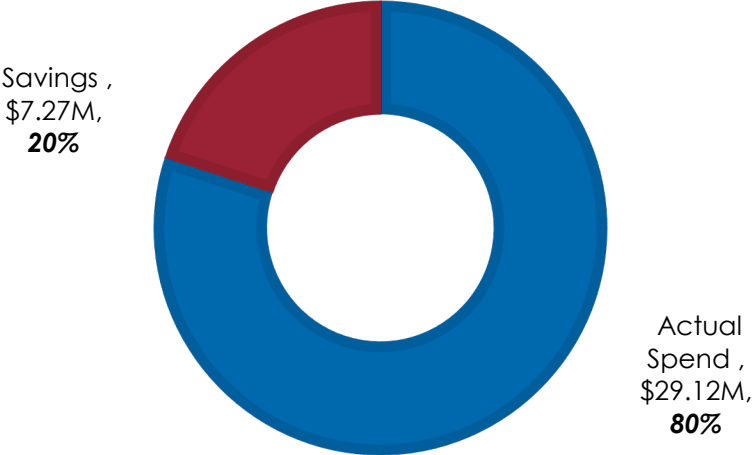
To support our research, the faculty require state of the art scientific equipment. Where much of this equipment is unique and there is limited competition in these fields, the UPST team has partnered with our faculty on numerous occasions to leverage professional negotiation and the scale of the Universities purchases to reduce costs. While some of these efforts result in only a few thousand of dollars in savings, every dollar saved goes right back into the teaching and research performed by the campuses.

Capital Construction

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

Project	Total Savings
Pinanski Parking Lot Improvements	1,285,464
McCormack Hall Roof Replacement	1,109,000
Quinn Bldg Roof Replacement	834,899
Costello Basketball Suite	396,478
Brett Renovations, Phase II	350,322
Construction of 7th Floor Clinical Wing	298,559
Concordia Fire Sprinklers & Roof	289,325
Research Equipment	231,000
Ball Hall Fire Alarm Upgrades	200,305
All Other Projects - Under \$200K	2,273,151
Total	7,268,502

CATEGORY SAVINGS IMPACT
BASELINE SPEND (\$36.4M)











Capital Plan Paused Mitigating COVID Impacts


In 2020 UPST partnered with the Campus Facilities teams and the UMass Office of the President to rapidly decrease the total number of projects bid as the University System shifted to a position to preserve cash as COVID impacted budget projections.

Actual Spend: lowest 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 to be reported)

UPST Performance: Major Accomplishments to Date

Truly centralized shared services, driving benefits actualization with more work to be done...

Service Area	UPST Performance Status	UPST Performance	Target
Procurement Cost Savings		\$26.9M (12 months)	\$16.5M (18 months)
Requisition to PO in 1 business day		87%	88%
Early Payment Discounts		85%	80%+
Late Payments (over 30 days)		16%	<15%
Travel & Expense Approval		11 days	8 days
Supplier Set-Up		10 days	8 days
Invoices received electronically		48%	58%
Contract Creation		33 days	N/A

 On track/ meets target

 Slightly below target

 Targeted for improvement

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 FY20

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

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

University Information Technology Services

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

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

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

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

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

Office of General Counsel

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

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

Title IX Compliance

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

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

System-wide Enterprise Risk Management Program

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

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

UMass Online

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

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

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

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

UMass Building Authority

Management of campus residential and academic construction projects and providing financing for construction, repair and renovation of existing campus facilities

Debt Refunding

- Debt refunding in 2020 generated a total of \$17.95 million of present value savings, with total cash flow savings of \$21.37 million
- For FY21, the refunding provided for \$5.4 million of net savings
- UMBA successfully refinanced \$200.1 million of outstanding bonds on a taxable advance refunding basis at a True Interest Cost (TIC) of 2.78%

- Current market environment has presented UMBA with the opportunity to refinance outstanding variable rate bonds with fixed rate bonds
- UMBA continually explores refunding opportunities looking for efficiency in our bond portfolio

Campus	Total Cash Flow Savings
Amherst	\$6.3 million
Boston	\$6.2 million
Dartmouth	\$0.9 million
Lowell	\$6.0 million
Medical School	\$2.0 million
Total	\$21.4 million

What's Next?

UPST Targets for FY21 and Beyond

- To continue achieving its mission of providing “better, faster, cheaper” services to the University, the UPST is working on various projects that can be summarized under the following key themes:
 - Spend Under Management & Revenue Generation
 - Process Cycle Time Improvement
 - Enhanced Visibility (Request Status and Processes)
 - Proactive Communication, Campus Engagement and Training
 - Enhanced Supplier Diversity practices (automation & engagement)
 - Improved software asset management practices

UPST Project Pipeline by Key Themes

With over 50 projects identified to optimize UPST services to UMass, the following have been prioritized for the next 12 -18 months.

Increase Spend Under Management & Revenue Generation

- Revenue Generation Opportunities
- Contract Management Process Automation
- Group Purchasing Organization (GPO) Contracts Leverage

Process Cycle Time Improvement

- Supplier Registration (TSM) Phase II
- Exception to Competitive Procurement Process Streamlining & Automation
- Purchase Order Change Order Process Automation

Enhanced Request Status Visibility

- Build Automated Spend Analytics
- Additional Supplier Catalog Enablement
- Bidding/Sourcing Process Automation

Proactive Communication, Engagement and Training

- UMass –wide Procurement Policy Harmonization (Phase 1)
- UPST Website and Knowledge Management Revamp

Shared Services Opportunities

- In order to respond to the historic time of disruption in higher education, driven by demographics and lingering impacts of COVID-19, the University remains committed to pursuing innovative models to manage operations and delivering a world-class education to our students
- Partnering with Accenture provided insights into shared services models across higher education; evaluation of potential applicability to the University
- Through examination, UMass has achieved and continues to demonstrate multiple examples of shared services across numerous administrative areas
- Recognition across the University that work remains to continually evaluate shared services models to better maximize financial resources for the benefit of our students and the Commonwealth

Future of Shared Services

Achieved Shared Services at UMass based on industry standards

- ✓ Procurement
- ✓ Accounts Payable
- ✓ Treasury
- ✓ Internal Audit
- ✓ General Counsel
- ✓ New construction project management
- ✓ Government Relations
- ✓ IT Infrastructure management
- ✓ Networking
- ✓ Data Center Management (BDL)

Exploring Implementation at UMass

- Payroll Services

Shared Services: Payroll Services

Key Opportunities:

Align roles

- Define roles and responsibilities to support payroll across PO A&F, UITS, and campuses
- Design a hybrid services model with shared services for system-wide payroll services and campuses for localized processes
- Measure and report results

Improve processes

- Standardize and automate business processes
- Establish customer-centric approach using technology and data
- Harmonize policies

Prepare for future technology

- Payroll focus is critical to prepare for a future replacement of PeopleSoft ERP
- Work done now will pay dividends in the short and long term

Progress to Date:

Deep dive/plan completed

- Key challenges with current payroll model:
 - Roles not aligned
 - Processes not standardized
 - Bi-weekly payroll effort is fractionalized
 - Time & labor processes/technology vary

Future state design phase underway

- 10 campus team members
- Completed 18 current state review sessions with campuses to validate challenges & opportunities
- Prioritize areas of future focus

Payroll Governance Committee established

- VCs of A&F, HR, and UITS leadership
- Meeting monthly to provide feedback & direction

Conclusion

- Over the past decade, UMass has demonstrated a strong record of achieving efficiencies and cultivated a culture focused on financial stewardship
- The first successful year of UPST in operation has illustrated the potential for savings opportunities leveraged by the university system and fostered the development of projects being prepared for implementation
- UMass continued commitment to efficiency and effectiveness improvements across administrative areas is fueled by the need to re-invest savings back to academic programs and ensuring continued affordability for our students

#9. Academic Quality



University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

A World-Class Public University

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

4

Tier-One National Universities

All four undergraduate campuses
are ranked nationally



#1

Public University in
New England



A World-Class Education

UMass is recognized as a national leader in academic excellence.

#33

▲ from #37 in 2015

Most Innovative
University in the
United States



#26

▲ from #52 in 2010

Among Public
Universities in the
United States

University of
Massachusetts
Amherst

#21

▲ from #38 in 2019

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



UMass Graduates Earn Strong Starting Salaries

Graduates from every UMass campus make a higher starting salaries than at least 59% of all other MA colleges and universities.

Amherst

\$58,700

Higher than **71%** of all other MA schools

The median early career salary...

Lowell

\$60,000

Higher than **73%** of all other MA schools

Boston

\$54,400

Higher than **59%** of all other MA schools

Dartmouth

\$54,500

Higher than **60%** of all other MA schools

Source: Payscale.com 2020 data

Faculty Excellence

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

- UMass faculty includes a Nobel Laureate, Pulitzer Prize winners, Breakthrough Prize winners, members of the National Academies of Science and Engineering and the American Academy of Arts and Sciences, an American Book Award winner and Fulbright, Guggenheim, MacArthur and Mellon fellows.
- Ten UMass Amherst researchers were named to the 2019 edition of the list of Highly Cited Researchers.
- UMass ranked 37th globally (30th in the U.S. and third in New England) in the Top 100 Worldwide Universities Granted U.S. Patents in 2018 report, with 58 patents arising out of faculty inventions in 2018 (National Academy of Inventors).
- UMass Amherst has been ranked as a “Top Producing Institution for Fulbright Scholars, with seven faculty members teaching or conducting research on four continents.

Faculty Excellence

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

- In 2006, UMass 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 Medical School's Katherine Luzuriaga was named to the 2013 TIME 100, the magazine's annual list of the world's most influential people, for her pioneering research that led to a functional cure for an HIV-infected infant.
- UMass Lowell professor Juliette Rooney-Varga has been a leader in climate change education, and is working with MIT on expanding a climate simulator to guide policy decisions.
- 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.
- Dr. Guarav Khanna, a physics professor and director of UMass Dartmouth's Center for Scientific Computing and Visualization Research, was recognized by the New York Times for his inventive solution of networking dozens of PlayStation 3 video game consoles together to create a low-cost "supercomputer" to help model black hole collisions.

Faculty Excellence Continued

- UMass Lowell's Nouredine Melikechi is part of the NASA Mars Mission science team, focused on the Perseverance rover's study of biological and chemical molecules.
- UMass Amherst professor Ocean Vuong was named a 2019 MacArthur Fellow in recognition of his best-selling novel, "On Earth We're Briefly Gorgeous."
- In 2014, UMass Boston professor Kamal Bawa received the MIDORI Prize in Biodiversity for his research on the sustainable use of tropical forests and his promotion of societal conservation efforts.
- UMass Amherst professor Andrew McCallum was selected as the leader of the university's new partnership with the Chan Zuckerberg Initiative to create an intelligent map of scientific knowledge using AI, which has the potential to accelerate the work of scientists across the world.
- UMass Lowell professors Liz Altman, Beth Humberd, and Scott Latham have been thought leaders in the Future of Work discussion, publishing in MIT Sloan Management Review and other leading journals.
- UMass Lowell professor Archana Kamal was recently named to the "Visionaries" category of the MIT Technology Review's prestigious "35 Innovators Under 35." As the lead on the university's Quantum Engineering Science and Technology, or QUEST, group, her research on bridging the gap between quantum computers and more ubiquitous traditional computers has proved significant.

Faculty Excellence Continued

- UMass Boston assistant professor Guy Numa was one of just two researchers worldwide to receive the 2016 Young Researcher Award from the European Society for the History of Economic Thought.
- 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 Lowell professor Jill Portnoy received a national award from the American Society of Criminology, thanks to her groundbreaking research into biological and social factors that interact to predict crime.
- UMass Boston’s Sustainable Solutions Lab’s research focuses on clarifying the disproportionate ways climate change is impacting different vulnerable communities and providing a foundation to create programs, policies, and projects to address these issues.
- UMass Lowell professors Joshua Dyck and John Cluverius, Directors of the Center for Public Opinion, were nationally visible in their polling for the 2020 elections, and also sought to understand the deep divisions in the American public.

Faculty Excellence: Endowed Professors

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

111

Endowed chairs and professorships across the university

\$183 million

Value of endowed funds for professorships and chairs

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

State Endowed Matching Incentive Program

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

#10. Campus Data



University of Massachusetts

Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

Amherst

About UMass Amherst

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



Amherst: Revenue & Expenses

AMHERST

(\$ in Thousands)

Revenues	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Gross Tuition & Fees	481,072	513,450	541,665	562,859	586,915	586,549	588,049
Tuition Discounts	(114,881)	(139,441)	(150,824)	(151,628)	(160,429)	(164,232)	(162,832)
Discount Rate	23.9%	27.2%	27.8%	26.9%	27.3%	29.2%	29.2%
Net Tuition & Fees	366,191	374,009	390,841	411,231	426,486	422,317	425,217
Grants	145,217	148,554	153,007	163,645	151,629	166,354	171,354
Sales & Service, Educational	8,935	9,137	9,321	10,795	10,653	3,456	3,456
Auxiliary Enterprises	241,428	256,110	268,041	279,545	243,865	206,758	139,941
Other Operating	22,413	16,575	16,768	16,439	19,644	18,936	18,936
State appropriations	319,541	345,411	360,161	371,781	386,057	352,667	389,412
Other NonOperating	70,716	66,258	78,504	87,616	90,577	76,064	77,112
Total Revenues	1,174,441	1,216,054	1,276,643	1,341,052	1,328,911	1,246,552	1,225,428
% Growth	8.5%	3.5%	5.0%	5.0%	-0.9%	-6.2%	-7.8%

(\$ in Thousands)

Expenses	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Salaries & Fringe	676,474	712,315	744,102	780,545	802,927	771,647	752,447
Non-personnel	308,850	306,743	326,076	341,923	337,418	292,386	289,687
Scholarships and fellowships	14,452	17,378	18,216	16,581	27,613	21,255	21,255
Depreciation	96,614	100,409	109,965	117,086	121,494	126,206	126,206
Interest	32,417	36,250	43,131	40,706	39,653	39,708	41,300
Total Expenses	1,128,807	1,173,095	1,241,490	1,296,841	1,329,105	1,251,202	1,230,895
% Growth	6.9%	3.9%	5.8%	4.5%	2.5%	-5.9%	-7.4%

Operating Margin

	Actual					Budget		Q1 Proj.	
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021	FY2021	FY2021
UMass OM Calc Revenues	1,176,957	1,209,147	1,274,604	1,333,206	1,331,644	1,240,902	1,219,778		
Total Expenses	1,128,807	1,173,095	1,241,490	1,296,841	1,329,105	1,251,202	1,230,895		
Surplus / (Deficit)	48,150	36,052	33,114	36,365	2,539	(10,300)	(11,117)		
UMass OM Calc	4.1%	3.0%	2.6%	2.7%	0.2%	-0.8%	-0.9%		

Amherst Undergraduate Enrollment

As of Fall 2020, undergrad enrollment at Amherst stands at 24.2K, which is a slight increase from 2019 and 3.6% higher than 2016.

AMHERST UNDERGRADUATE ENROLLMENT: FALL 2020




24.2K

HEADCOUNT



0.1%

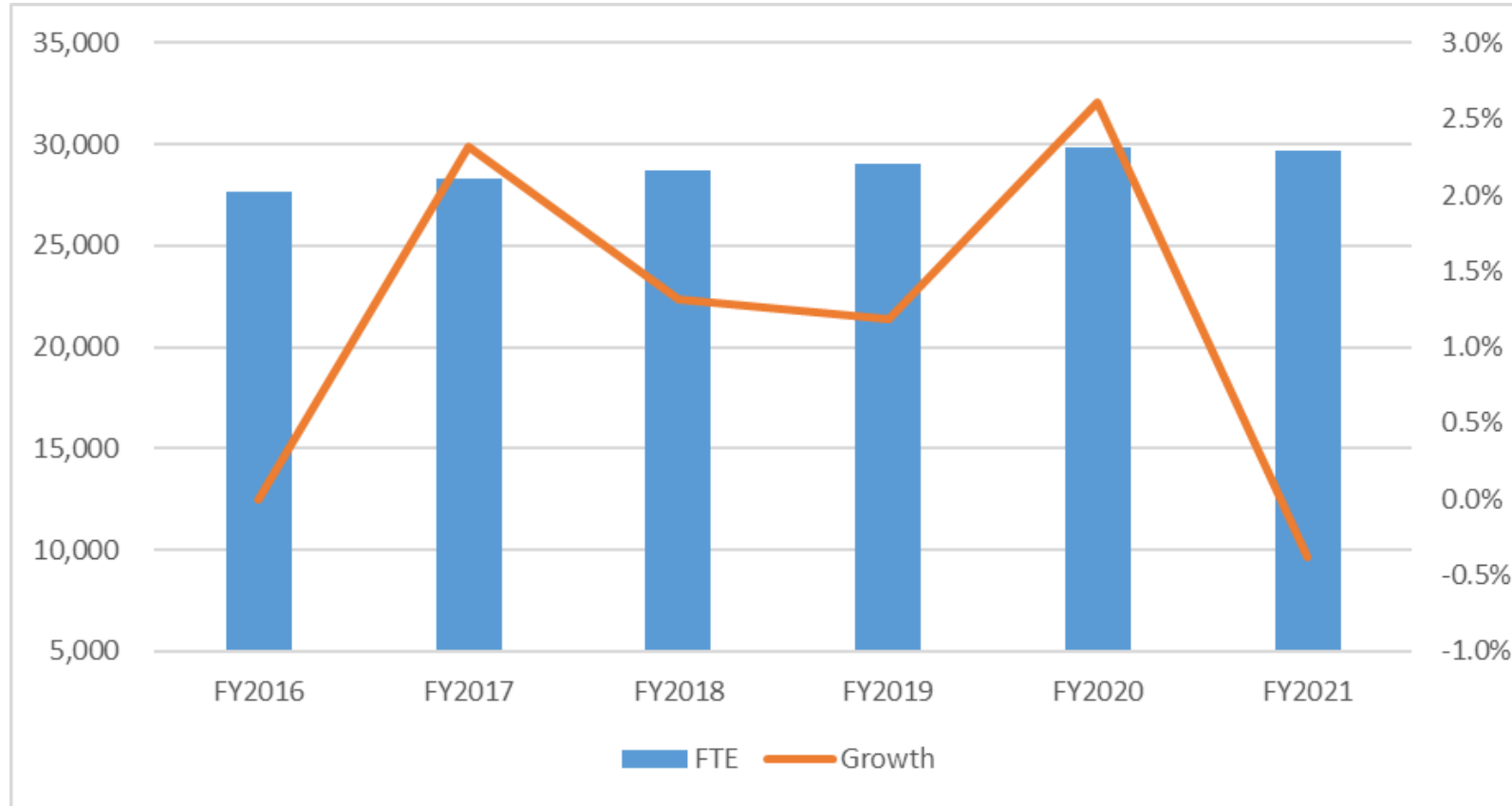
Δ VS FALL 2019



3.6%

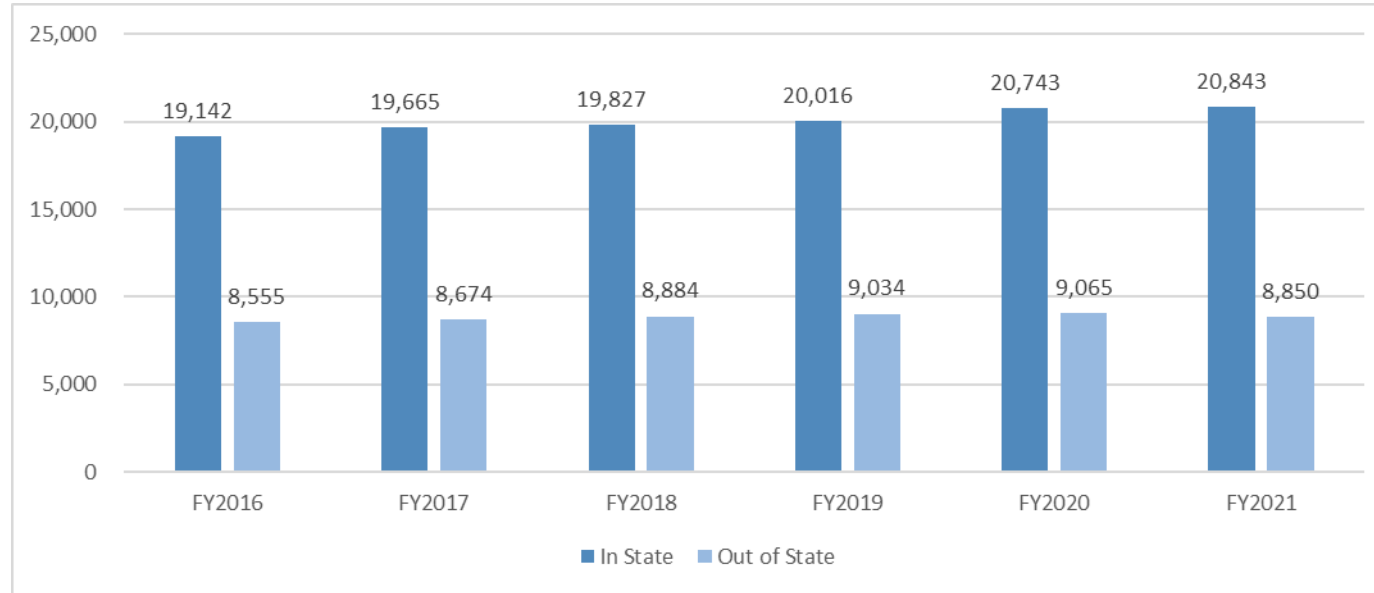
Δ VS FALL 2016

Amherst: Enrollment Trend



Source: Actuals from student profile.

Amherst: Enrollment by Residency

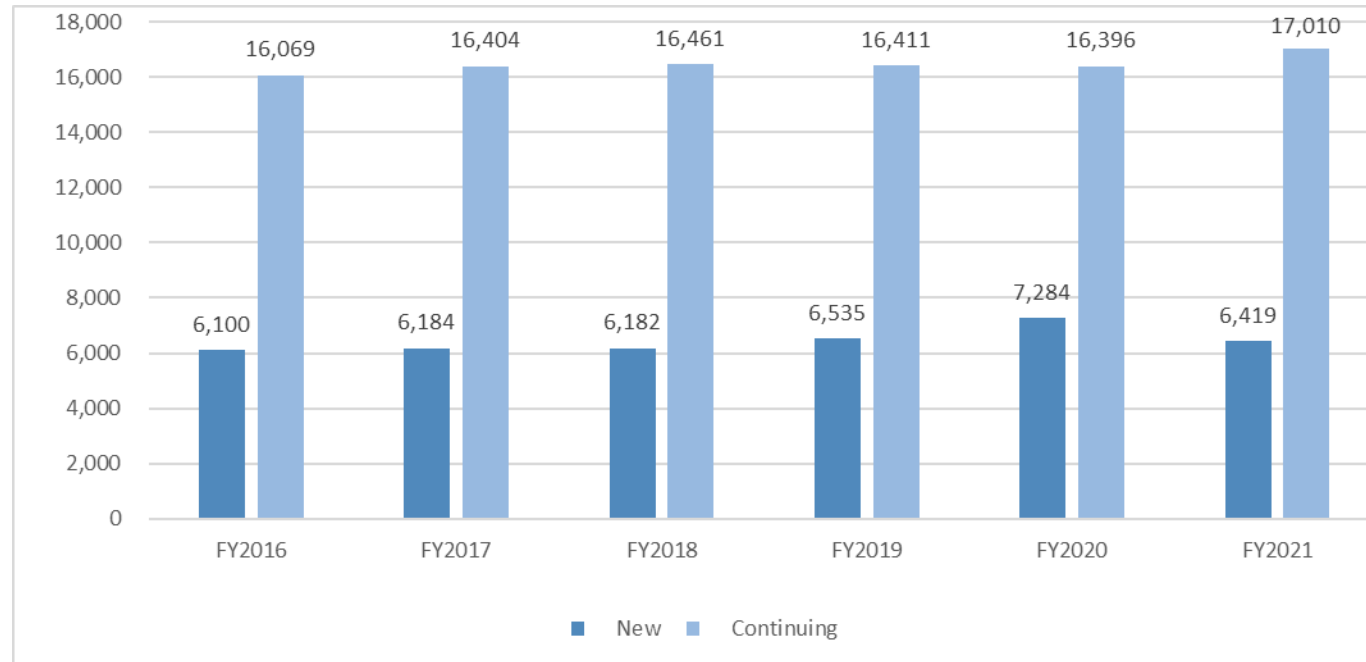


Amherst

Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
In State	19,142	19,665	19,827	20,016	20,743	20,843
% Change		2.7%	0.8%	1.0%	3.6%	0.5%
Out of State	8,555	8,674	8,884	9,034	9,065	8,850
% Change		1.4%	2.4%	1.7%	0.3%	-2.4%
Total	27,697	28,339	28,711	29,051	29,808	29,693
% Change		2.3%	1.3%	1.2%	2.6%	-0.4%

Source: Actuals from student profile.

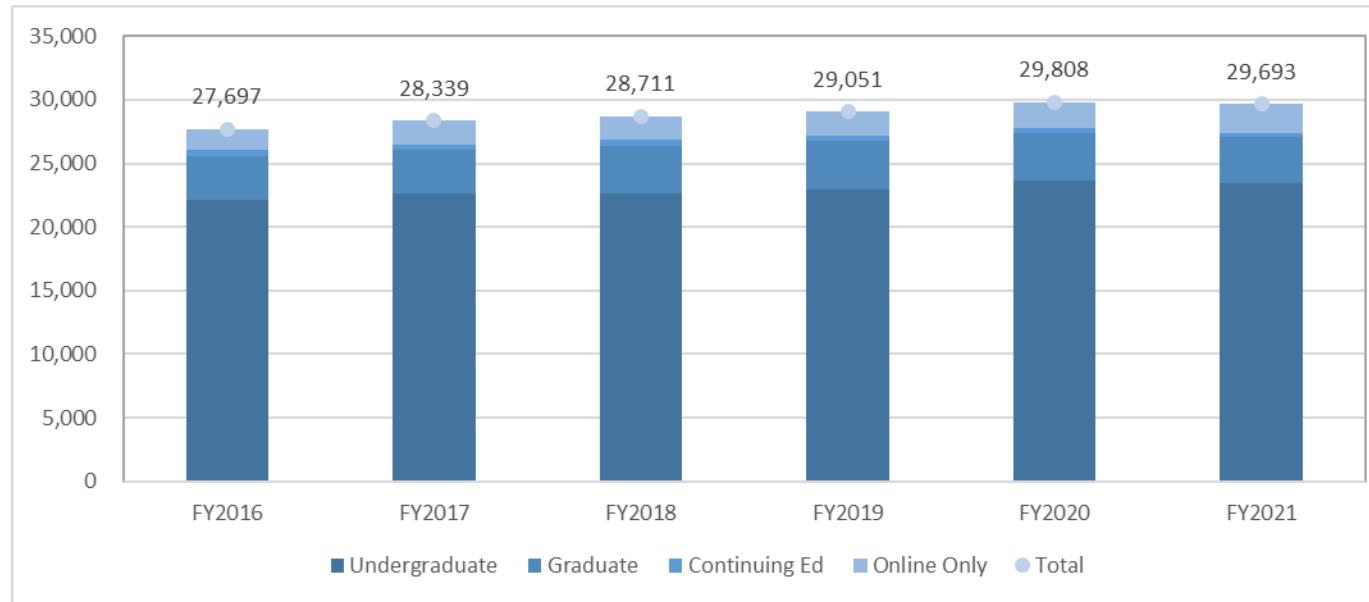
Amherst: Enrollment by New v Continuing



Amherst Undergraduate (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
New	6,100	6,184	6,182	6,535	7,284	6,419
% Change		1.4%	-0.0%	5.7%	11.5%	-11.9%
Continuing	16,069	16,404	16,461	16,411	16,396	17,010
% Change		2.1%	0.3%	-0.3%	-0.1%	3.7%
Undergraduate Total	22,169	22,588	22,643	22,945	23,680	23,429
% Change		1.9%	0.2%	1.3%	3.2%	-1.1%

Source: Actuals from student profile.

Amherst: Enrollment by Career



Amherst Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Undergraduate	22,169	22,588	22,643	22,945	23,680	23,430
% Change		1.9%	0.2%	1.3%	3.2%	-1.1%
Graduate	3,417	3,496	3,708	3,772	3,736	3,648
% Change		2.3%	6.1%	1.7%	-0.9%	-2.4%
Continuing Ed	464	428	472	417	313	250
% Change		-7.7%	10.2%	-11.8%	-24.8%	-20.1%
Online Only	1,647	1,827	1,888	1,917	2,079	2,365
% Change		10.9%	3.4%	1.5%	8.4%	13.8%
Total	27,697	28,339	28,711	29,051	29,808	29,693
% Change		2.3%	1.3%	1.2%	2.6%	-0.4%

Source: Actuals from student profile.

Amherst: Staffing

Employee FTEs	AMHERST				
	Actual				
	FY2017	FY2018	FY2019	FY2020	FY2021
Restricted					
Faculty	64	49	44	42	41
Staff	317	374	396	382	432
Total Restricted	381	423	440	424	473
<i>FTE Change (#)</i>		42	17	(16)	49
Unrestricted General University Ops					
Faculty	1,486	1,509	1,508	1,620	1,606
Staff	2,611	2,692	2,773	2,762	2,747
Total General University Ops	4,097	4,201	4,281	4,382	4,353
<i>FTE Change (#)</i>		104	80	101	(29)
Unrestricted Aux./Independent Business					
Faculty	-	-	-	-	-
Staff	1,016	1,051	1,254	1,517	1,417
Total Aux./Independent Business	1,016	1,051	1,254	1,517	1,417
<i>FTE Change (#)</i>		35	203	263	(100)
Total Faculty & Staff	5,494	5,675	5,975	6,323	6,243
<i>FTE Change (#)</i>		181	300	348	(80)

Amherst: Key Ratios

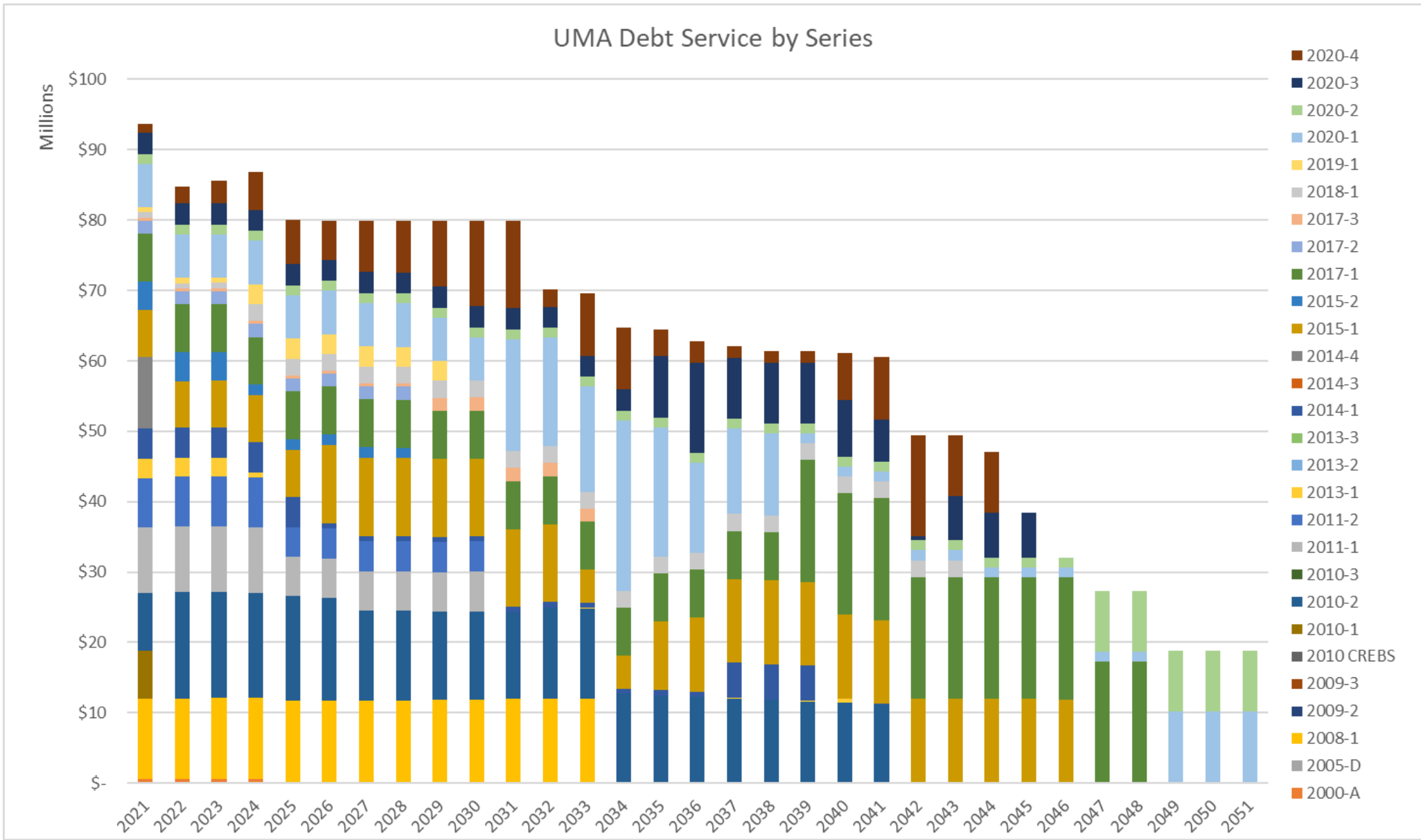
AMHERST

Key Ratio						FY2021	
	Actual					Budget	Q1 Proj.
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Operating Margin (%)	4.1%	3.0%	2.6%	2.7%	0.2%	-0.8%	-0.9%
<i>Operating Margin (\$)</i>	48,150	36,052	33,114	36,365	2,539	(10,300)	(11,117)
Operating Cash Flow Margin (%)	15.6%	14.8%	14.8%	14.6%	12.9%	13.2%	13.3%
<i>Operating Cash Flow Margin (\$)</i>	181,720	176,745	186,268	192,282	168,787	161,636	160,659
Debt Service Burden (%)	6.4%	6.6%	6.8%	6.5%	6.4%	7.2%	7.3%
Debt Service Coverage (x)	2.5	2.3	2.2	2.3	2.0	1.8	1.8
Financial Leverage (x)	0.50	0.50	0.54	0.54	0.49	TBD	TBD
Total Debt (\$ in thousands)	939,847	1,048,407	1,044,216	1,089,240	1,203,126	1,150,551	1,150,551
Spendable Cash & Investments to Op Expenses (x)	0.42	0.46	0.46	0.46	0.45	TBD	TBD
Enrollment	27,697	28,339	28,711	29,051	29,808	29,699	29,699
<i>Enrollment (% Change)</i>		2.3%	1.3%	1.2%	2.6%	-0.4%	-0.4%

FY15 – FY20 Capital Review: Amherst Projects

Campus	Project	Adjusted Cost
Amherst	Facility Demolitions	\$11,200,000
Amherst	ISOM architectural and MEP	\$2,000,000
Amherst	Lederle Graduate Research basic systems upgrades	\$10,305,000
Amherst	McGuirk Training Facility and Pressbox	\$36,800,000
Amherst	Morrill complex repairs and renovations	\$9,081,000
Amherst	Paige Lab Renovations	\$9,900,000
Amherst	University Drive Infrastructure	\$8,000,000
Amherst	Academic Classroom Building	\$93,250,000
Amherst	Central Campus Infrastructure	\$25,000,000
Amherst	Fine Arts Center fire protection and emergency generator	\$6,000,000
Amherst	Housing Repair & Renovation	\$25,000,000
Amherst	Lederle Graduate Research Center Window encapsulation/replacement	\$3,500,000
Amherst	New Substation and Electrical Upgrades	\$21,200,000
Amherst	Design Building	\$52,000,000
Amherst	Morrill Science Center Renovations	\$2,972,890
Amherst	Old Chapel Renovations	\$17,800,000
Amherst	Physical Plant deferred maintenance & renovations	\$5,812,706

Campus	Project	Adjusted Cost
Amherst	South College Academic Facility	\$63,632,734
Amherst	Champions Center	\$29,900,000
Amherst	DuBois Writing Program & Image Library	\$6,998,000
Amherst	Hampshire DC renovations	\$15,500,000
Amherst	Life Science Laboratories, OIT data center fitout	\$8,167,225
Amherst	Lincoln Campus Center Concourse Improvements, Phase II	\$19,512,972
Amherst	Marks Meadow/Furcolo Renovations	\$22,987,522
Amherst	MLSC Life Sciences Facility	\$95,000,000
Amherst	New Faculty Hire Renovations	\$14,000,000
Amherst	DuBois Library Electrical, Plumbing, Fire Suppression, Deferred Maintenance	\$25,000,000
Amherst	Expand and Upgrade Central Chilled Water Plants	\$27,580,832
Amherst	Isenberg Management School Expansion	\$63,900,000
Amherst	Life Science Laboratories	\$174,000,000
Amherst	Physical Sciences Building	\$101,800,000
Amherst	Life Science Laboratories backfill renovations	\$18,000,000
Amherst	McGuirk Scoreboard & Seasonal Bubble	\$18,000,000
Total		\$1,043,800,881



Boston

About UMass Boston

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



Boston: Revenue & Expenses

BOSTON

(\$ in Thousands)

Revenues	Actual					FY2021	
						Budget	Q1 Proj.
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Gross Tuition & Fees	232,355	240,235	243,760	245,734	252,603	240,185	249,952
Tuition Discounts	(45,471)	(53,820)	(57,790)	(64,836)	(69,973)	(70,190)	(75,177)
Discount Rate	19.6%	22.4%	23.7%	26.4%	27.7%	29.2%	29.2%
Net Tuition & Fees	186,884	186,415	185,970	180,898	182,630	169,995	174,775
Grants	53,927	58,201	56,212	53,536	54,732	49,546	56,785
Sales & Service, Educational	3,709	3,979	4,072	4,312	1,744	1,348	1,348
Auxiliary Enterprises	5,965	6,167	5,199	12,315	10,381	7,556	7,556
Other Operating	2,837	1,818	1,758	2,218	3,138	1,123	1,582
State appropriations	117,987	130,157	135,605	140,659	146,284	134,183	147,477
Other NonOperating	35,093	36,597	37,773	42,529	44,706	43,203	46,141
Total Revenues	406,402	423,334	426,589	436,467	443,615	406,953	435,663
% Growth	8.1%	4.2%	0.8%	2.3%	1.6%	-8.3%	-1.8%

(\$ in Thousands)

Expenses	Actual					FY2021	
						Budget	Q1 Proj.
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021
Salaries & Fringe	266,100	275,330	269,465	269,723	269,734	248,883	258,138
Non-personnel	101,713	98,250	98,972	98,428	96,680	85,130	97,003
Scholarships and fellowships	16,047	16,161	17,180	17,983	20,771	17,983	21,809
Depreciation	18,988	22,246	24,433	28,010	32,460	35,029	35,029
Interest	9,064	12,476	14,152	16,823	19,312	19,927	18,476
Total Expenses	411,912	424,463	424,202	430,967	438,957	406,953	430,455
% Growth	9.1%	3.0%	-0.1%	1.6%	1.9%	-7.3%	-1.9%

Operating Margin	Actual					Budget		Q3 Proj.
						FY2021	FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021	
UMass OM Calc Revenues	406,543	421,462	426,589	434,863	444,014	406,953	435,663	
Total Expenses	411,912	424,463	424,202	430,967	438,957	406,953	430,455	
Surplus / (Deficit)	(5,369)	(3,001)	2,387	3,896	5,057	(0)	5,208	
UMass OM Calc	-1.3%	-0.7%	0.6%	0.9%	1.1%	0.0%	1.2%	

Boston Undergraduate Enrollment

As of Fall 2020, undergrad enrollment at Boston totals 12.9K, a 2.2% increase since 2019 and level with 2016.

BOSTON UNDERGRADUATE ENROLLMENT: FALL 2020



12.9K

HEADCOUNT



2.2%

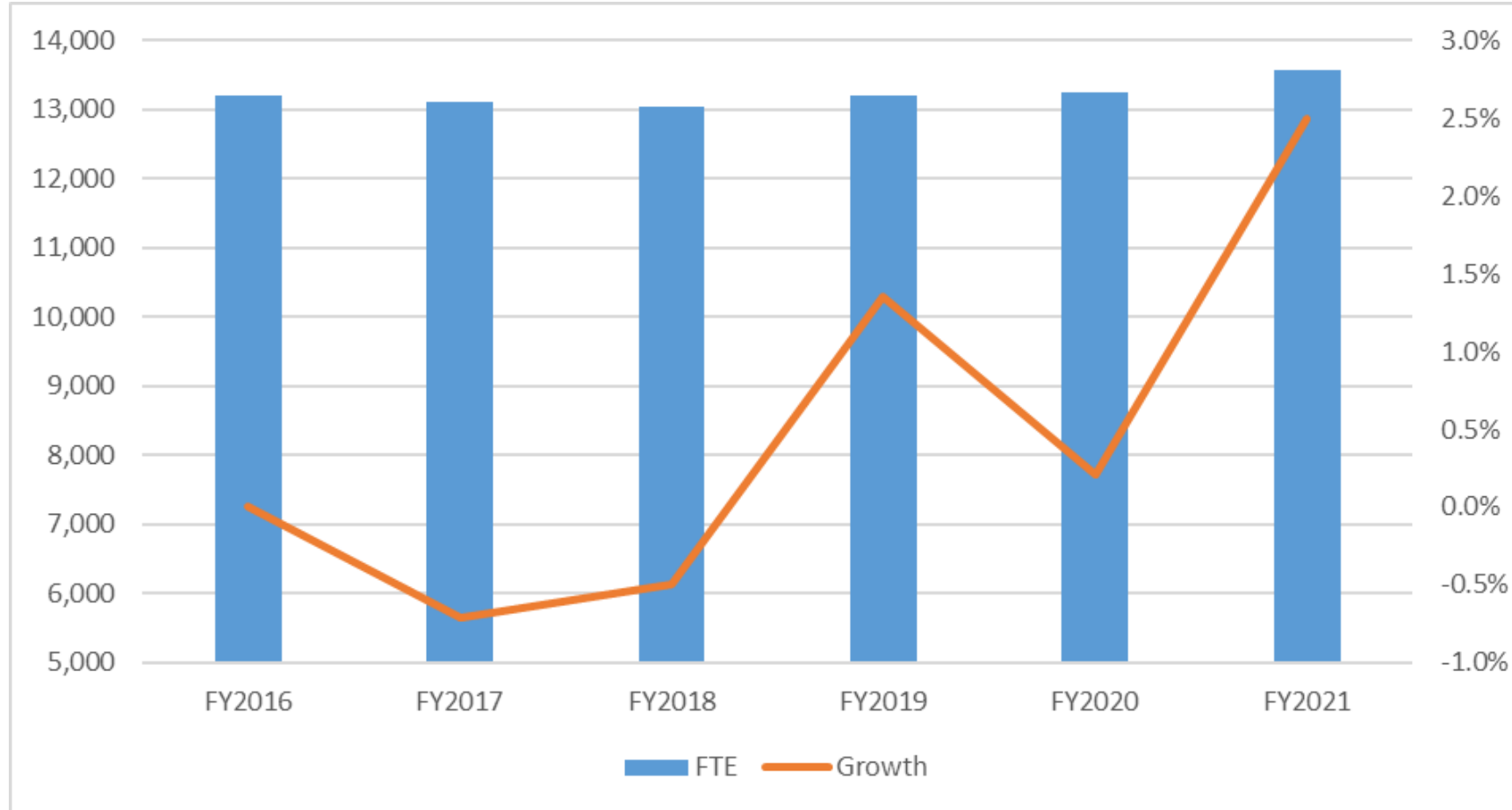
Δ VS FALL 2019



0.0%

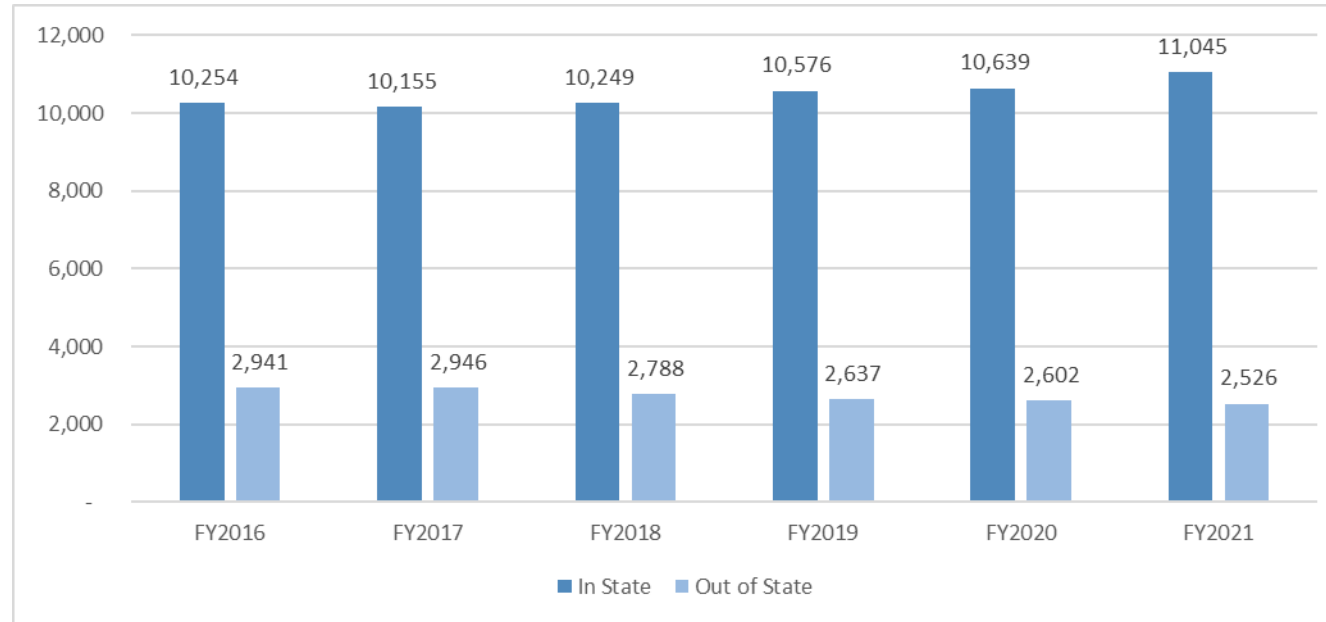
Δ VS FALL 2016

Boston: Enrollment Trend



Source: Actuals from student profile.

Boston: Enrollment by Residency

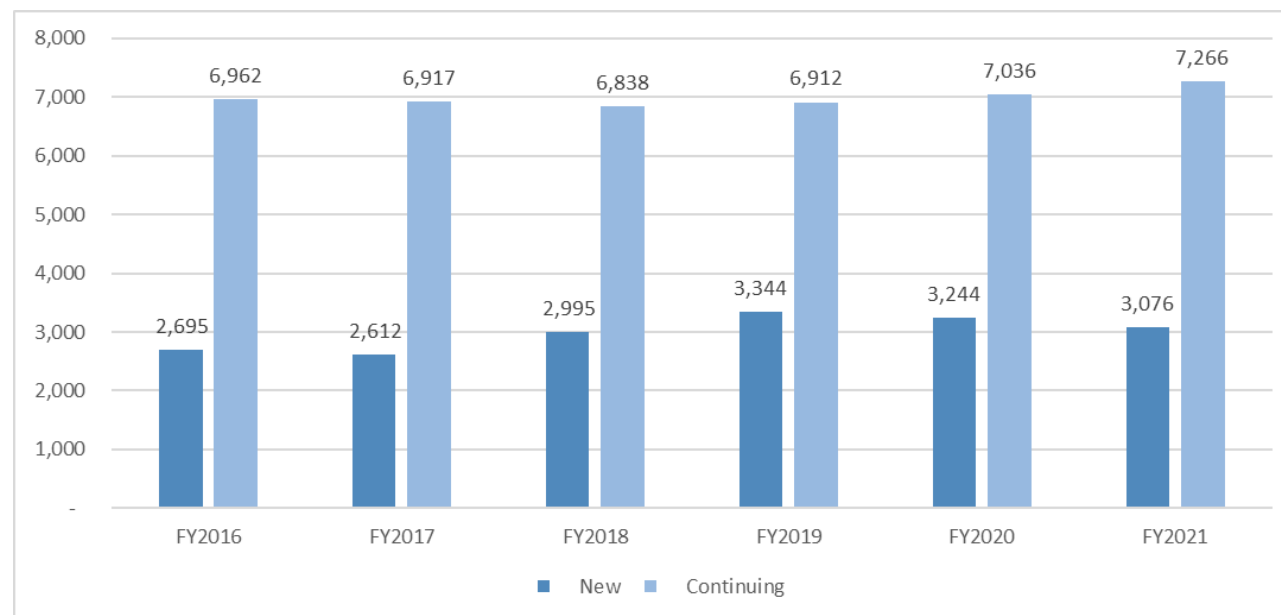


Boston

Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
In State	10,254	10,155	10,249	10,576	10,639	11,045
% Change		-1.0%	0.9%	3.2%	0.6%	3.8%
Out of State	2,941	2,946	2,788	2,637	2,602	2,526
% Change		0.2%	-5.4%	-5.4%	-1.3%	-2.9%
Total	13,195	13,101	13,036	13,213	13,241	13,571
% Change		-0.7%	-0.5%	1.4%	0.2%	2.5%

Source: Actuals from student profile.

Boston: Enrollment by New v Continuing

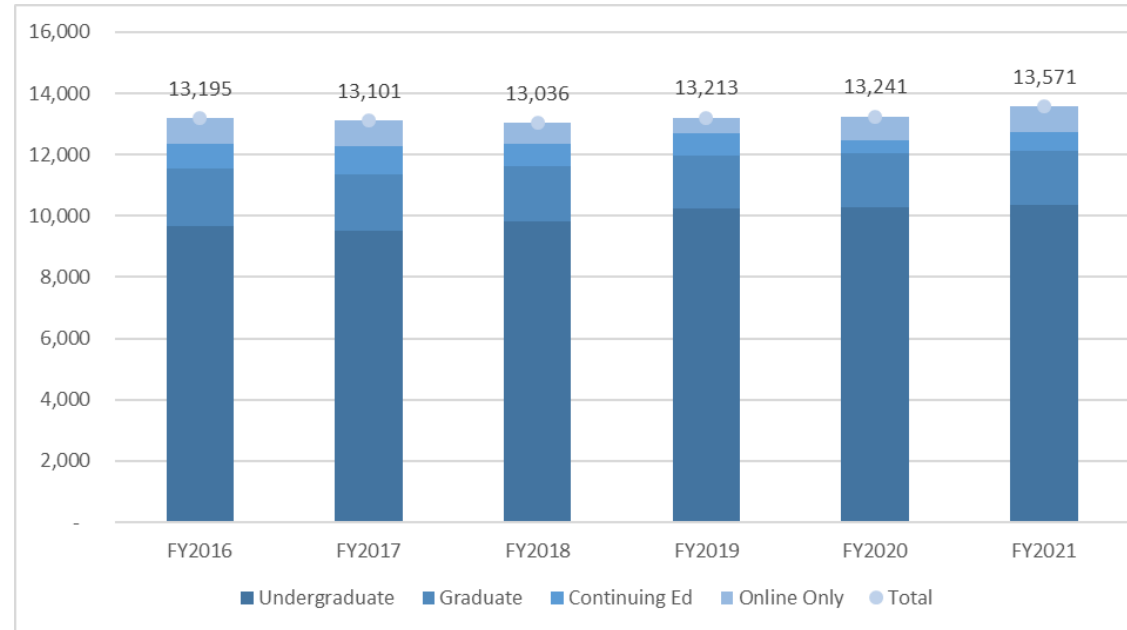


Boston

	Actual					
Undergraduate (FTEs)	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
New	2,695	2,612	2,995	3,344	3,244	3,076
% Change		-3.1%	14.7%	11.6%	-3.0%	-5.2%
Continuing	6,962	6,917	6,838	6,912	7,036	7,266
% Change		-0.6%	-1.1%	1.1%	1.8%	3.3%
Undergraduate Total	9,657	9,529	9,834	10,256	10,280	10,342
% Change		-1.3%	3.2%	4.3%	0.2%	0.6%

Source: Actuals from student profile.

Boston: Enrollment by Career



Boston

Students (FTEs)

	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Undergraduate	9,657	9,529	9,835	10,256	10,280	10,342
% Change		-1.3%	3.2%	4.3%	0.2%	0.6%
Graduate	1,876	1,816	1,802	1,714	1,771	1,783
% Change		-3.2%	-0.8%	-4.9%	3.3%	0.7%
Continuing Ed	829	939	697	715	419	599
% Change		13.3%	-25.8%	2.6%	-41.3%	42.8%
Online Only	833	818	703	528	769	847
% Change		-1.8%	-14.0%	-24.9%	45.7%	10.1%
Total	13,195	13,101	13,036	13,213	13,241	13,571
% Change		-0.7%	-0.5%	1.4%	0.2%	2.5%

Source: Actuals from student profile.

Boston: Staffing

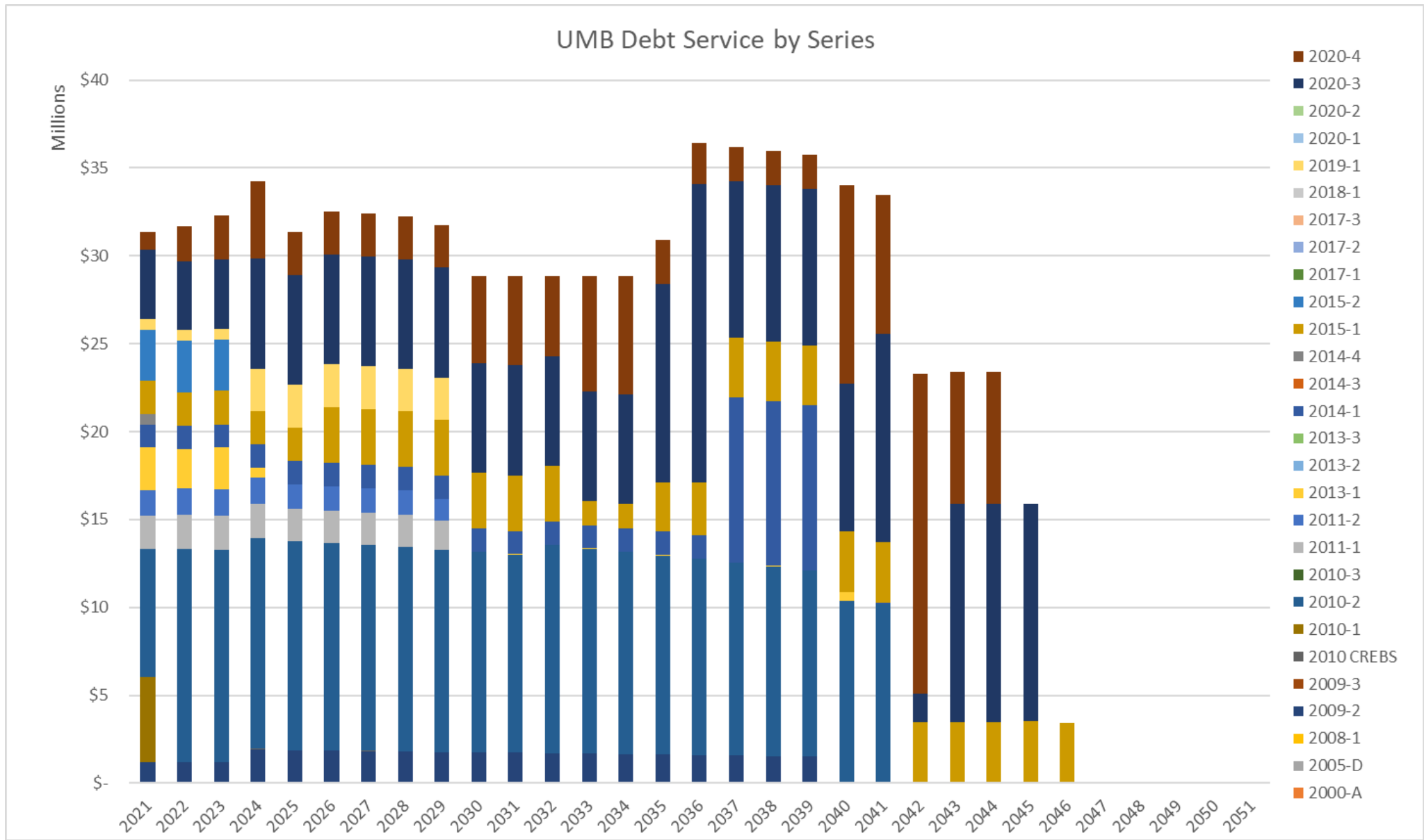
<i>Employee FTEs</i>	BOSTON				
	Actual				
	FY2017	FY2018	FY2019	FY2020	FY2021
Restricted					
Faculty	22	15	14	18	7
Staff	160	150	131	142	126
Total Restricted	182	165	145	160	133
<i>FTE Change (#)</i>		(17)	(20)	15	(28)
Unrestricted General University Ops					
Faculty	861	840	849	819	843
Staff	1,024	929	960	899	869
Total General University Ops	1,885	1,769	1,809	1,718	1,712
<i>FTE Change (#)</i>		(116)	40	(91)	(6)
Unrestricted Aux./Independent Business					
Faculty	-	-	-	-	-
Staff	61	43	27	26	19
Total Aux./Independent Business	61	43	27	26	19
<i>FTE Change (#)</i>		(18)	(16)	(1)	(7)
Total Faculty & Staff	2,128	1,977	1,981	1,904	1,864
<i>FTE Change (#)</i>		(151)	4	(77)	(40)

Boston: Key Ratios

Key Ratio	BOSTON						
	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Operating Margin (%)	-1.3%	-0.7%	0.6%	0.9%	1.1%	0.0%	1.2%
<i>Operating Margin (\$)</i>	<i>(5,369)</i>	<i>(3,001)</i>	2,387	3,896	4,658	(0)	5,208
Operating Cash Flow Margin (%)	5.4%	7.1%	9.0%	11.2%	13.2%	14.4%	14.1%
<i>Operating Cash Flow Margin (\$)</i>	<i>21,192</i>	<i>28,684</i>	<i>36,282</i>	<i>46,650</i>	<i>55,954</i>	<i>56,214</i>	<i>58,461</i>
Debt Service Burden (%)	4.9%	5.9%	6.3%	6.9%	7.5%	8.0%	7.2%
Debt Service Coverage (x)	1.0	1.1	1.4	1.6	1.7	1.7	1.9
Financial Leverage (x)	0.16	0.12	0.12	0.16	0.19	TBD	TBD
Total Debt (\$ in thousands)	505,552	622,941	611,819	616,132	606,847	586,689	586,421
Spendable Cash & Investments to Op Expenses (x)	0.20	0.19	0.19	0.24	0.27	TBD	TBD
Enrollment	13,195	13,101	13,036	13,213	13,241	13,571	13,571
<i>Enrollment (% Change)</i>	<i>2.8%</i>	<i>-0.7%</i>	<i>-0.5%</i>	<i>1.4%</i>	<i>0.2%</i>	<i>2.5%</i>	<i>2.5%</i>

FY15 – FY20 Capital Review: Boston Projects

Campus	Project	Adjusted Cost
Boston	Demolish UMass Bayside Buildings and Improve Parking Lot (Master Plan Phase I)	\$7,318,927
Boston	Fox Point Dock: Upgrades and ADA Accessibility	\$2,808,489
Boston	Grounds: Sea Wall and Harborwalk Construction on North-Facing Shore	\$2,818,938
Boston	Healey Building: Roof Replacement and Building Envelope Repairs	\$8,340,000
Boston	Center for Personalized Cancer Therapy (Life Sciences Bond Bill Earmark) (Master Plan Phase I)	\$10,000,000
Boston	Construct New General Academic Building 1, University Hall (Master Plan Phase I)	\$136,800,000
Boston	Construct New Integrated Sciences Complex (Master Plan Phase I)	\$176,875,765
Boston	Utility Corridor and Roadway Relocation Project (Master Plan Phase I)	\$259,500,000
Boston	Clark Athletic Center: Replace Gymnasium Roof and East Curtain Wall and Repair Rink South Façade	\$5,195,000
Boston	Construct New Garage Facility (Master Plan Phase I)	\$69,275,000
Boston	Elevator Renovations in Clark Athletic Center, McCormack Hall, Quinn Administration Building, and Wheatley Hall	\$8,300,000
Boston	Construct University Dining Facility in New Residence Hall 1	\$17,998,636
Boston	Construct New Residence Hall	\$119,384,358
Total		\$824,615,113



Dartmouth

About UMass Dartmouth

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



Dartmouth: Revenue & Expenses

DARTMOUTH

(\$ in Thousands)

Revenues	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Gross Tuition & Fees	112,467	115,421	116,766	121,340	120,535	113,511	114,261
Tuition Discounts	(35,987)	(38,179)	(38,795)	(42,762)	(39,858)	(36,854)	(36,854)
Discount Rate	32.0%	33.1%	33.2%	35.2%	33.1%	32.5%	32.3%
Net Tuition & Fees	76,480	77,242	77,971	78,578	80,677	76,657	77,407
Grants	18,511	19,534	18,925	18,918	18,677	18,196	18,196
Sales & Service, Educational	71	45	96	164	154	157	157
Auxiliary Enterprises	48,835	48,349	47,666	49,451	35,932	21,586	13,683
Other Operating	5,016	6,237	4,438	2,955	2,312	3,933	3,933
State appropriations	75,971	80,436	83,740	86,385	92,731	81,923	93,371
Other NonOperating	16,397	16,542	17,792	20,141	20,963	21,833	22,325
Total Revenues	241,281	248,385	250,628	256,592	251,446	224,285	229,072
% Growth	4.1%	2.9%	0.9%	2.4%	-2.0%	-10.8%	-8.9%

(\$ in Thousands)

Expenses	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Salaries & Fringe	142,174	142,247	150,061	151,746	152,040	137,029	135,754
Non-personnel	63,166	64,262	65,795	66,939	62,457	53,103	56,396
Scholarships and fellowships	5,001	4,821	5,023	5,302	5,641	5,562	5,562
Depreciation	17,904	18,647	20,481	21,665	22,187	22,265	22,265
Interest	7,968	8,786	8,910	9,466	9,125	8,758	8,758
Total Expenses	236,213	238,763	250,270	255,118	251,450	226,717	228,735
% Growth	4.8%	1.1%	4.8%	1.9%	-1.4%	-9.8%	-9.0%

Operating Margin	Actual					Budget	
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	Q1 Proj. FY2021
UMass OM Calc Revenues	243,647	247,205	253,071	258,776	251,531	226,717	228,804
Total Expenses	236,213	238,763	250,270	255,118	251,450	226,717	228,735
Surplus / (Deficit)	7,434	8,442	2,801	3,658	81	0	69
UMass OM Calc	3.1%	3.4%	1.1%	1.4%	0.0%	0.0%	0.0%

Dartmouth Undergraduate Enrollment


For Fall 2020, Dartmouth's undergrad headcount totals 6.0K, showing declines of 6% and 14% versus Fall 2019 and Fall 2016, respectively.

DARTMOUTH UNDERGRADUATE ENROLLMENT: FALL 2020



6.0K

HEADCOUNT



6.3%

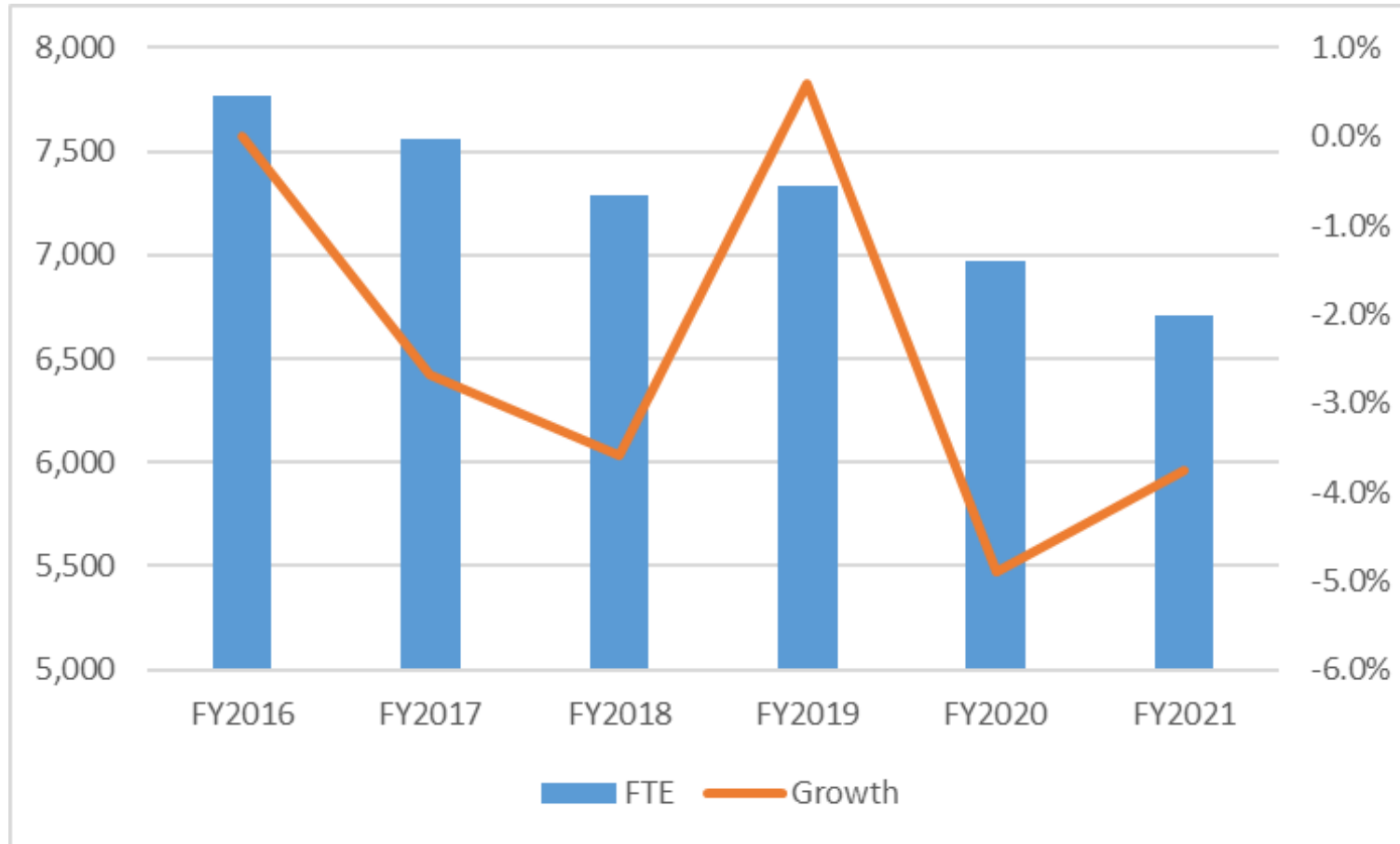
Δ VS FALL 2019



13.9%

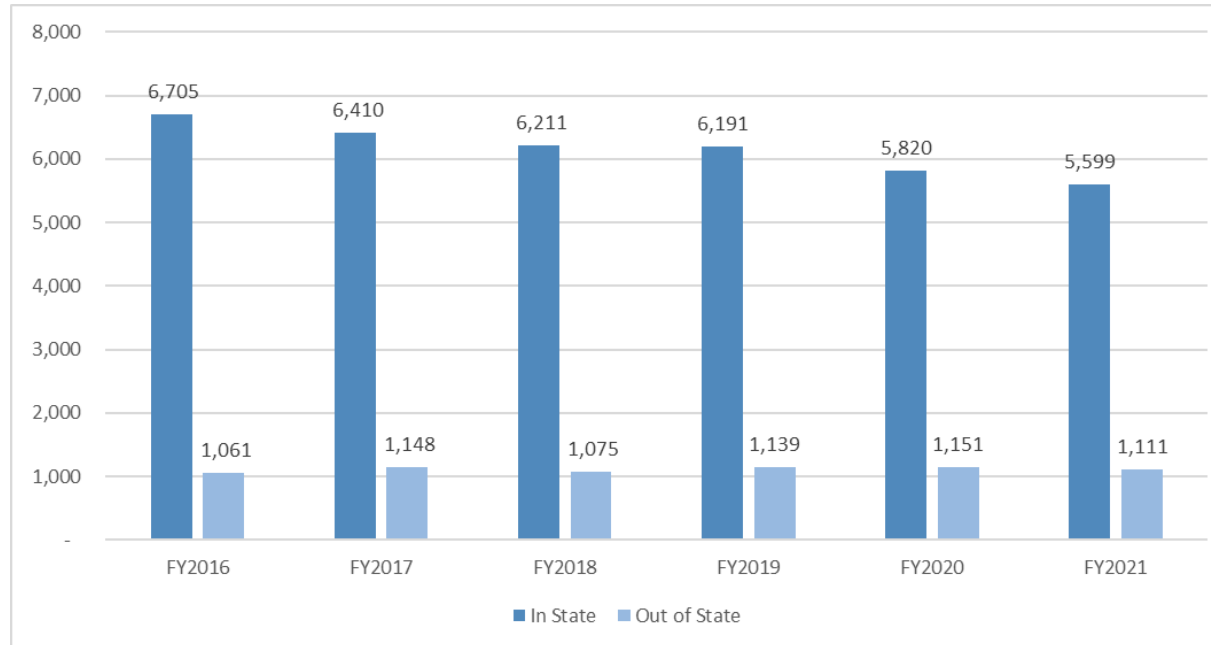
Δ VS FALL 2016

Dartmouth: Enrollment Trend



Source: Actuals from student profile.

Dartmouth: Enrollment by Residency

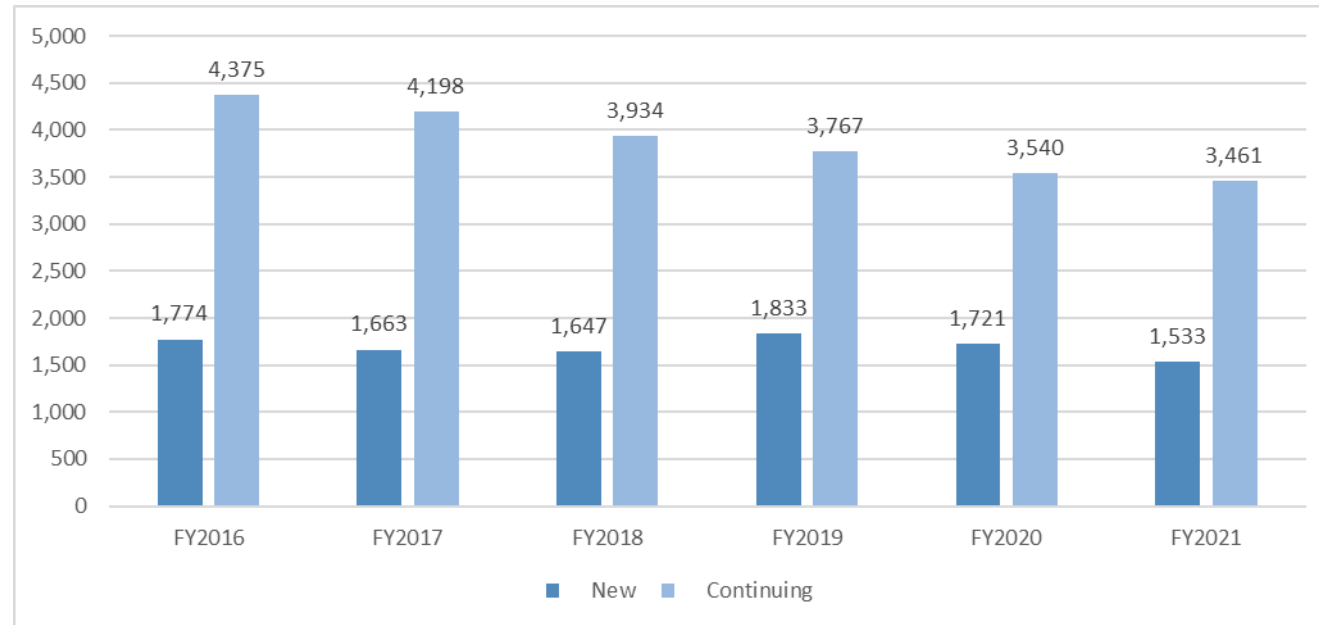


Dartmouth

Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
In State	6,705	6,410	6,211	6,191	5,820	5,599
% Change		-4.4%	-3.1%	-0.3%	-6.0%	-3.8%
Out of State	1,061	1,148	1,075	1,139	1,151	1,111
% Change		8.2%	-6.3%	5.9%	1.1%	-3.5%
Total	7,766	7,558	7,286	7,330	6,971	6,709
% Change		-2.7%	-3.6%	0.6%	-4.9%	-3.8%

Source: Actuals from student profile.

Dartmouth: Enrollment by New v Continuing



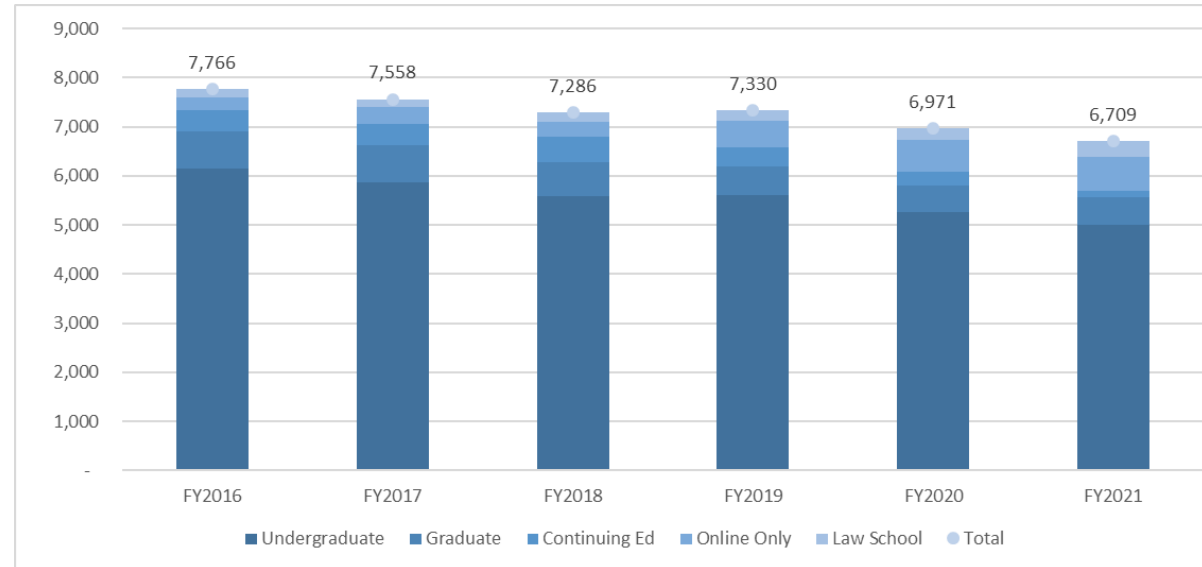
Dartmouth

Actual

Undergraduate (FTEs)	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
New	1,774	1,663	1,647	1,833	1,721	1,533
% Change		-6.2%	-1.0%	11.3%	-6.1%	-10.9%
Continuing	4,375	4,198	3,934	3,767	3,540	3,461
% Change		-4.0%	-6.3%	-4.3%	-6.0%	-2.2%
Undergraduate Total	6,149	5,861	5,582	5,600	5,261	4,993
% Change		-4.7%	-4.8%	0.3%	-6.1%	-5.1%

Source: Actuals from student profile.

Dartmouth: Enrollment by Career



Dartmouth

Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Undergraduate	6,149	5,861	5,582	5,600	5,261	4,993
% Change		-4.7%	-4.8%	0.3%	-6.1%	-5.1%
Graduate	755	763	698	594	536	579
% Change		1.1%	-8.5%	-14.9%	-9.8%	8.1%
Continuing Ed	429	436	508	391	279	120
% Change		1.6%	16.3%	-23.0%	-28.6%	-57.1%
Online Only	263	340	315	546	649	689
% Change		29.2%	-7.3%	73.3%	18.9%	6.2%
Law School	170	157	184	199	246	328
% Change		-7.6%	16.7%	8.4%	23.6%	33.2%
Total	7,766	7,558	7,286	7,330	6,971	6,709
% Change		-2.7%	-3.6%	0.6%	-4.9%	-3.8%

Source: Actuals from student profile.

Dartmouth: Staffing

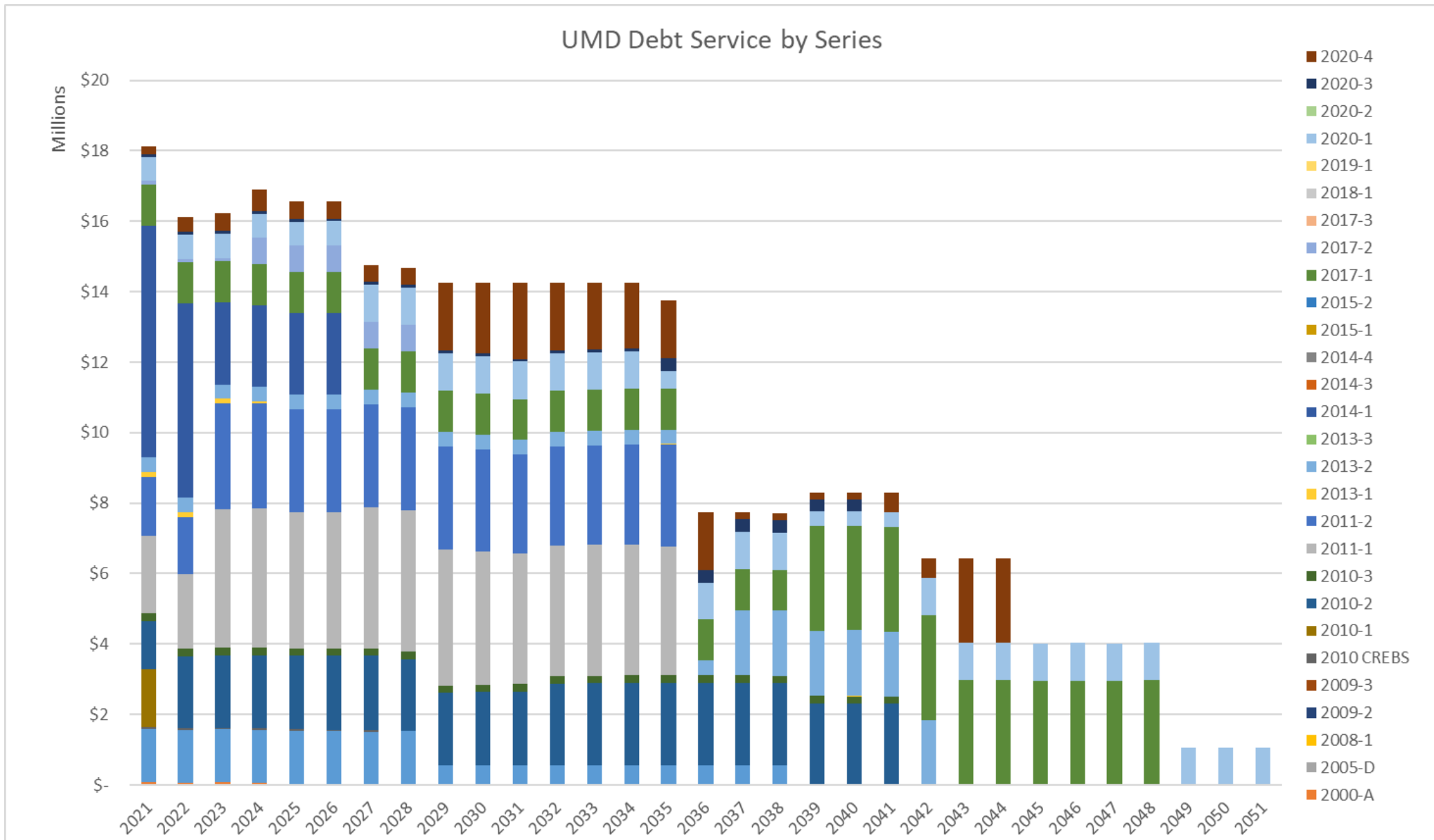
Employee FTEs	DARTMOUTH				
	Actual				
	FY2017	FY2018	FY2019	FY2020	FY2021
Restricted					
Faculty	4	4	4	7	6
Staff	18	32	35	34	32
Total Restricted	22	36	39	41	38
<i>FTE Change (#)</i>		14	3	2	(3)
Unrestricted General University Ops					
Faculty	419	452	405	449	436
Staff	571	593	582	571	530
Total General University Ops	990	1,045	987	1,019	966
<i>FTE Change (#)</i>		55	(58)	32	(53)
Unrestricted Aux./Independent Business					
Faculty	-	-	-	-	-
Staff	107	106	99	82	77
Total Aux./Independent Business	107	106	99	82	77
<i>FTE Change (#)</i>		(1)	(7)	(17)	(5)
Total Faculty & Staff	1,119	1,187	1,125	1,143	1,081
<i>FTE Change (#)</i>		68	(62)	18	(61)

Dartmouth: Key Ratios

Key Ratio	DARTMOUTH						
	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Operating Margin (%)	3.1%	3.4%	1.1%	1.4%	0.0%	0.0%	0.0%
<i>Operating Margin (\$)</i>	7,434	8,442	2,801	3,658	81	0	69
Operating Cash Flow Margin (%)	12.1%	13.9%	10.6%	12.8%	12.2%	11.5%	11.4%
<i>Operating Cash Flow Margin (\$)</i>	28,208	33,475	25,525	32,192	29,670	24,758	24,827
Debt Service Burden (%)	8.4%	7.8%	7.6%	7.8%	7.7%	8.6%	8.5%
Debt Service Coverage (x)	1.4	1.8	1.3	1.6	1.5	1.3	1.3
Financial Leverage (x)	0.20	0.21	0.28	0.19	0.20	TBD	TBD
Total Debt (\$ in thousands)	201,118	215,530	205,513	351,883	338,643	327,992	327,992
Spendable Cash & Investments to Op Expenses (x)	0.17	0.20	0.24	0.27	0.27	TBD	TBD
Enrollment	7,766	7,558	7,286	7,330	6,971	6,259	6,709
<i>Enrollment (% Change)</i>		-2.7%	-3.6%	0.6%	-4.9%	-10.2%	-3.8%

FY15 – FY20 Capital Review: Dartmouth Projects

Campus	Project	Adjusted Cost
Dartmouth	ATMC Acquisition	\$11,400,000
Dartmouth	Massachusetts Accelerator for Biomanufacturing - MAB, Fall River	\$30,577,590
Dartmouth	Energy / Water Savings Project	\$35,007,581
Dartmouth	Fitness Center Expansion	\$7,750,000
Dartmouth	Charlton College of Business, Phase II	\$14,537,469
Dartmouth	Research Laboratory Improvements	\$13,878,138
Dartmouth	SMAST / DMF Expansion	\$55,000,000
Dartmouth	Classroom, Teaching Laboratory, and Learning Space Improvements	\$11,440,000
Total		\$179,590,778



Lowell

About UMass Lowell

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



Lowell: Revenue & Expenses

LOWELL

(\$ in Thousands)

Revenues	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Gross Tuition & Fees	224,065	243,228	256,002	259,130	263,115	252,603	261,573
Tuition Discounts	(45,417)	(54,517)	(61,218)	(65,369)	(67,631)	(62,274)	(64,974)
Discount Rate	20.3%	22.4%	23.9%	25.2%	25.7%	29.2%	29.2%
Net Tuition & Fees	178,648	188,711	194,784	193,761	195,484	190,329	196,599
Grants	41,346	42,190	44,875	53,613	57,639	59,113	59,113
Sales & Service, Educational	89	767	925	1,436	1,481	1,766	1,481
Auxiliary Enterprises	57,782	60,570	65,030	68,923	55,461	22,558	14,611
Other Operating	7,984	7,008	7,438	8,129	6,629	6,508	6,508
State appropriations	104,725	111,859	117,668	122,802	127,688	117,497	128,929
Other NonOperating	27,826	28,738	28,322	36,106	35,738	33,457	31,623
Total Revenues	418,400	439,843	459,042	484,770	480,120	431,228	438,864
% Growth	7.2%	5.1%	4.4%	5.6%	-1.0%	-10.2%	-8.6%

(\$ in Thousands)

Expenses	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Salaries & Fringe	239,536	249,312	262,133	274,695	284,516	260,270	261,952
Non-personnel	114,923	116,761	121,734	128,938	123,928	99,096	102,326
Scholarships and fellowships	9,134	9,316	9,983	9,641	11,439	10,450	10,450
Depreciation	32,985	34,127	37,806	42,147	44,482	44,841	47,498
Interest	21,272	18,790	19,896	21,231	18,879	16,571	18,381
Total Expenses	417,850	428,306	451,552	476,652	483,244	431,228	440,607
% Growth	7.9%	2.5%	5.4%	5.6%	1.4%	-10.8%	-8.8%

Operating Margin	Actual					Budget	
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	Q1 Proj. FY2021
UMass OM Calc Revenues	418,546	437,730	458,337	482,786	480,544	431,228	438,864
Total Expenses	417,850	428,306	451,552	476,652	483,244	431,228	440,607
Surplus / (Deficit)	696	9,424	6,785	6,134	(2,700)	-	(1,743)
UMass OM Calc	0.2%	2.2%	1.5%	1.3%	-0.6%	0.0%	-0.4%

Lowell Undergraduate Enrollment


As of Fall 2020, undergrad enrollment at Lowell stands at 13.8K, with a decrease of 2.4% since 2019 and an increase of 1.3% since 2016.

LOWELL UNDERGRADUATE HEADCOUNT: FALL 2020



13.8K

HEADCOUNT



▼ 2.4%

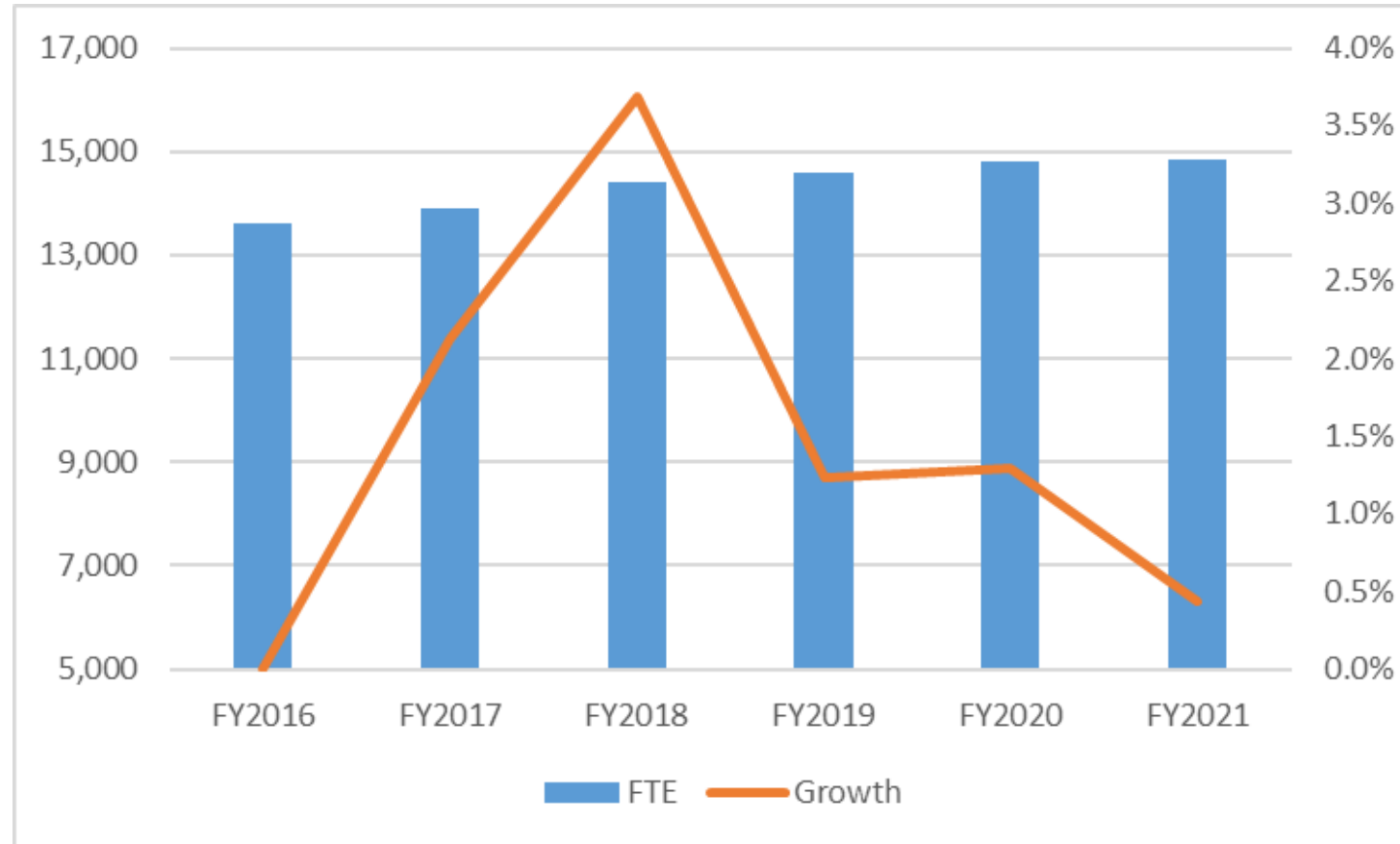
Δ VS FALL 2019



▲ 1.3%

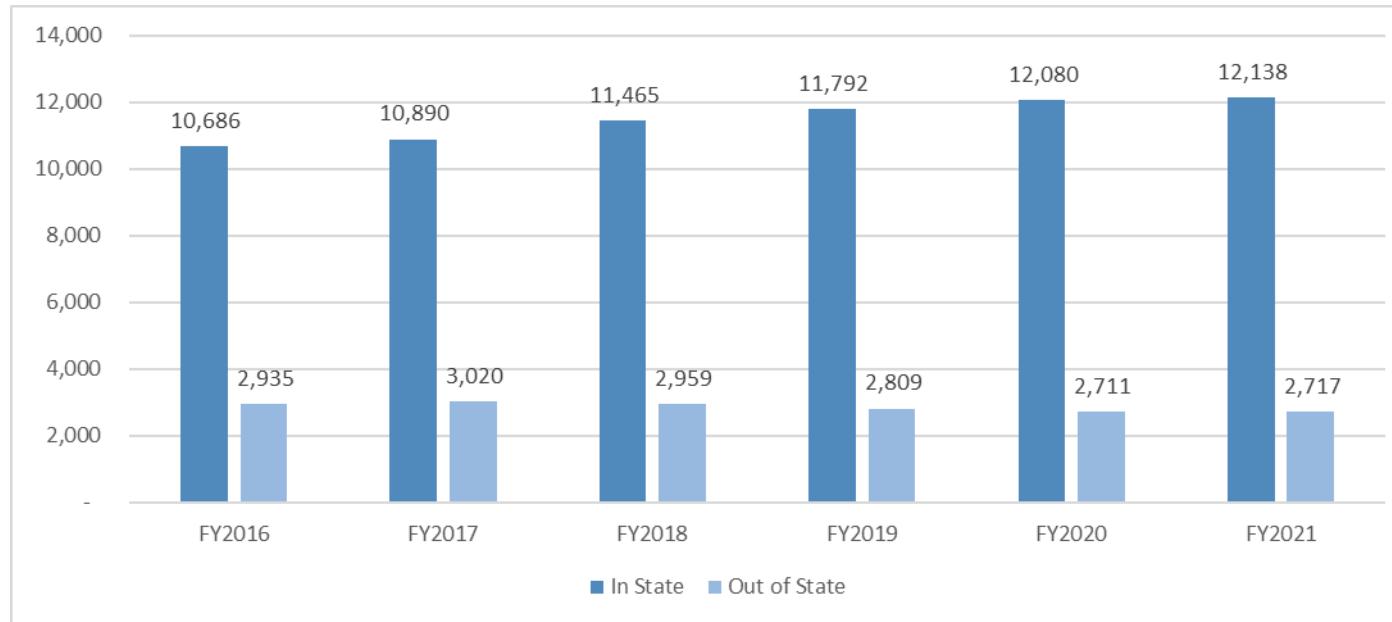
Δ VS FALL 2016

Lowell: Enrollment Trend



Source: Actuals from student profile.

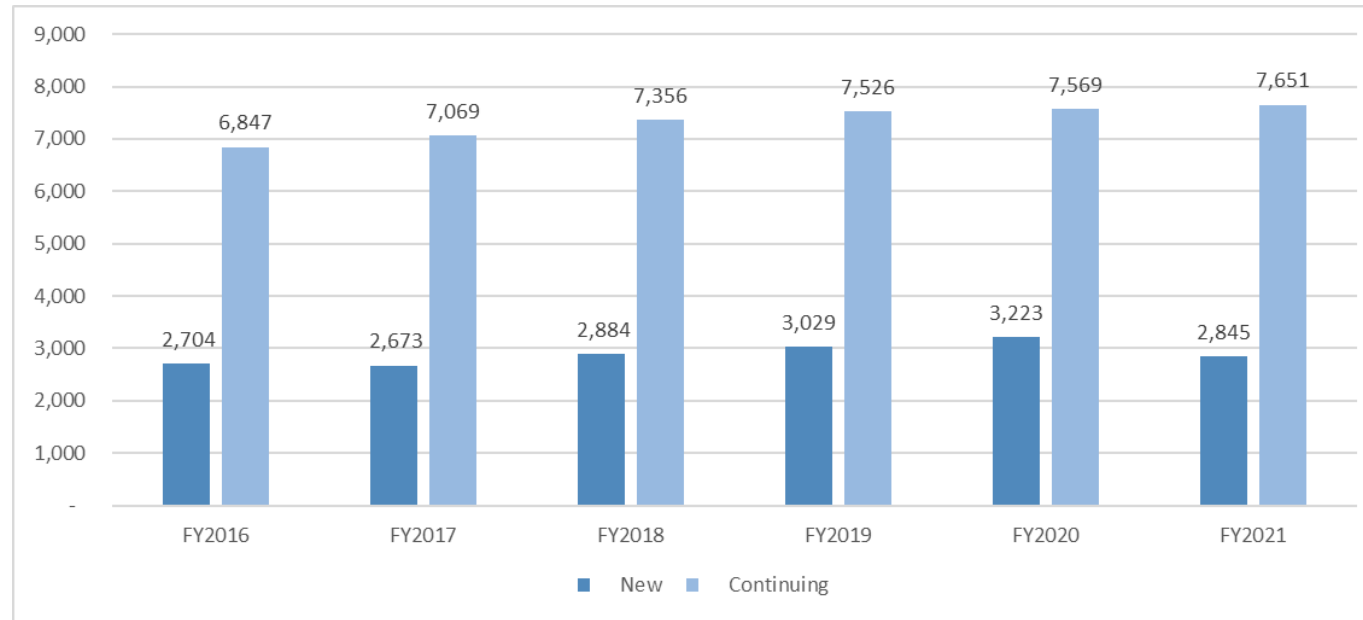
Lowell: Enrollment by Residency



Lowell Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
In State	10,686	10,890	11,465	11,792	12,080	12,138
% Change		1.9%	5.3%	2.9%	2.4%	0.5%
Out of State	2,935	3,020	2,959	2,809	2,711	2,717
% Change		2.9%	-2.0%	-5.0%	-3.5%	0.2%
Total	13,620	13,910	14,423	14,601	14,790	14,855
% Change		2.1%	3.7%	1.2%	1.3%	0.4%

Source: Actuals from student profile.

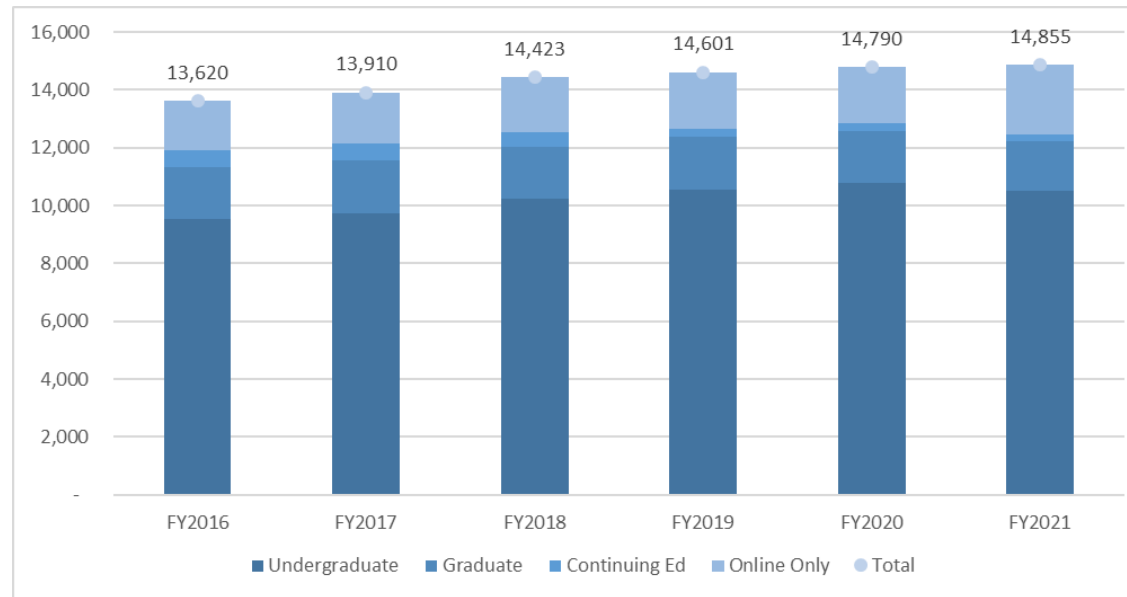
Lowell: Enrollment by New v Continuing



Lowell	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Undergraduate (FTEs)						
New	2,704	2,673	2,884	3,029	3,223	2,845
% Change		-1.1%	7.9%	5.0%	6.4%	-11.7%
Continuing	6,847	7,069	7,356	7,526	7,569	7,651
% Change		3.2%	4.1%	2.3%	0.6%	1.1%
Undergraduate Total	9,551	9,742	10,240	10,555	10,792	10,496
% Change		2.0%	5.1%	3.1%	2.2%	-2.7%

Source: Actuals from student profile.

Lowell: Enrollment by Career



Lowell Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Undergraduate	9,550	9,742	10,239	10,555	10,792	10,497
% Change		2.0%	5.1%	3.1%	2.2%	-2.7%
Graduate	1,757	1,817	1,794	1,804	1,761	1,721
% Change		3.4%	-1.3%	0.6%	-2.4%	-2.3%
Continuing Ed	614	567	484	285	274	236
% Change		-7.7%	-14.6%	-41.1%	-3.9%	-13.9%
Online Only	1,699	1,784	1,906	1,957	1,963	2,401
% Change		5.0%	6.8%	2.7%	0.3%	22.3%
Total	13,620	13,910	14,423	14,601	14,790	14,855
% Change		2.1%	3.7%	1.2%	1.3%	0.4%

Source: Actuals from student profile.

Lowell: Staffing

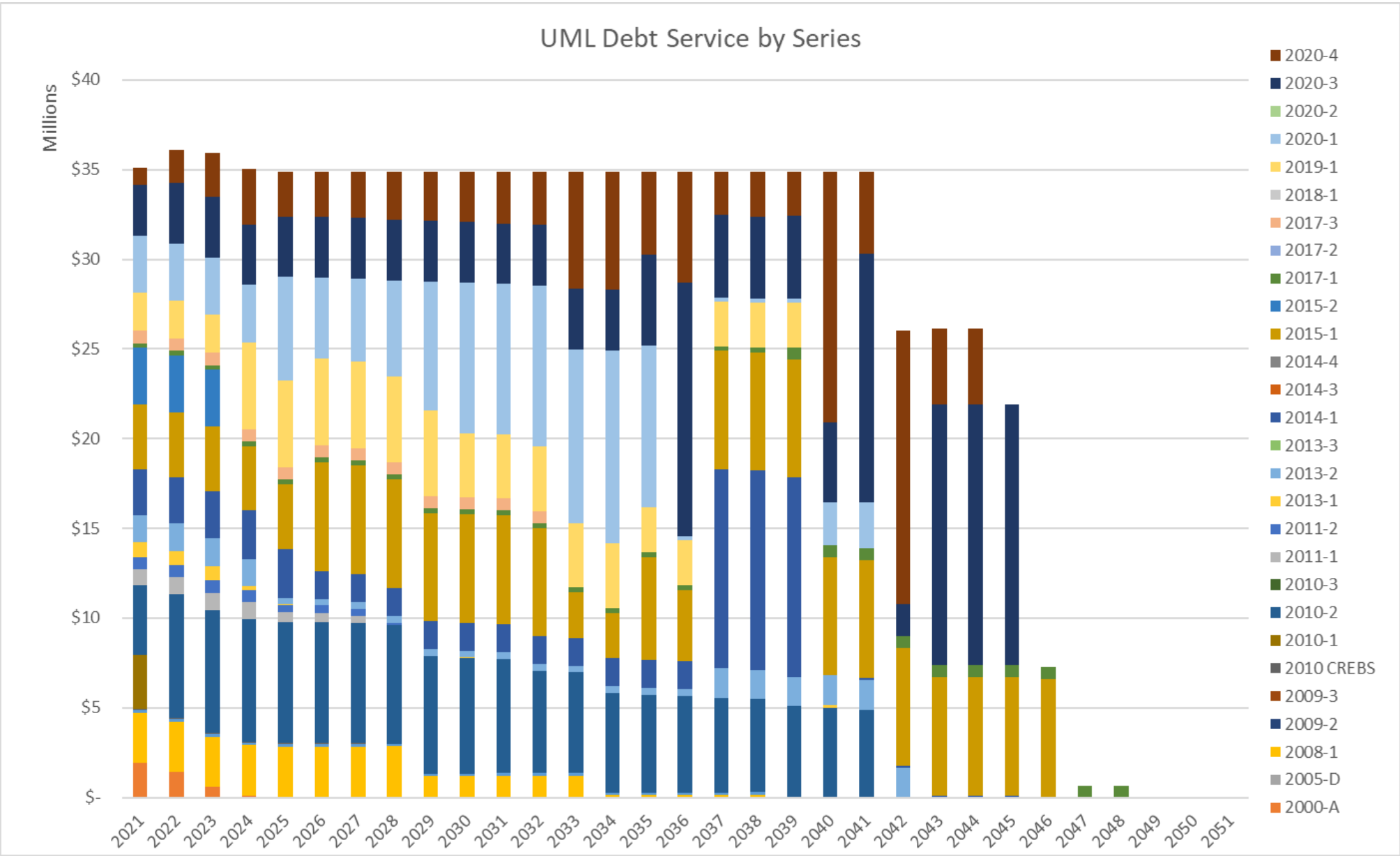
<i>Employee FTEs</i>	LOWELL				
	Actual				
	FY2017	FY2018	FY2019	FY2020	FY2021
Restricted					
Faculty	8	10	11	15	16
Staff	78	82	95	87	98
Total Restricted	86	92	106	102	114
<i>FTE Change (#)</i>		6	14	(4)	12
Unrestricted General University Ops					
Faculty	775	797	805	838	767
Staff	966	985	974	988	917
Total General University Ops	1,741	1,782	1,779	1,826	1,684
<i>FTE Change (#)</i>		42	(3)	47	(142)
Unrestricted Aux./Independent Business					
Faculty	-	-	-	-	-
Staff	38	38	75	71	63
Total Aux./Independent Business	38	38	75	71	63
<i>FTE Change (#)</i>		-	37	(4)	(8)
Total Faculty & Staff	1,865	1,912	1,960	1,999	1,861
<i>FTE Change (#)</i>		48	48	39	(138)

Lowell: Key Ratios

Key Ratio	LOWELL						
	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Operating Margin (%)	0.2%	2.2%	1.5%	1.3%	-0.6%	0.0%	-0.4%
Operating Margin (\$)	696	9,424	6,785	6,134	(2,700)	-	(1,743)
Operating Cash Flow Margin (%)	12.8%	14.6%	14.3%	14.7%	13.1%	14.4%	15.3%
Operating Cash Flow Margin (\$)	51,839	62,350	64,009	69,416	61,446	60,502	65,660
Debt Service Burden (%)	7.5%	7.3%	7.4%	7.7%	6.8%	7.9%	7.7%
Debt Service Coverage (x)	1.7	2.0	1.9	1.9	1.9	1.8	1.9
Financial Leverage (x)	0.28	0.26	0.25	0.24	0.26	TBD	TBD
Total Debt (\$ in thousands)	491,078	487,253	500,656	556,087	552,657	534,877	534,877
Spendable Cash & Investments to Op Expenses (x)	0.34	0.31	0.29	0.29	0.30	TBD	TBD
Enrollment	13,620	13,910	14,423	14,601	14,790	14,820	14,820
Enrollment (% Change)	6.1%	2.1%	3.7%	1.2%	1.3%	0.2%	0.2%

FY15 – FY20 Capital Review: Lowell Projects

Campus	Project	Adjusted Cost
Lowell	University Crossing - Student Life, Student Services & Admin Serv. Includes Salem St	\$97,000,000
Lowell	Athletic & Recreational Facility Improvements - incl. Division 1	\$5,000,000
Lowell	ETIC	\$84,000,000
Lowell	Wannalancit	\$7,100,000
Lowell	McGauvran Dining Conversion	\$33,664,336
Lowell	Leitch & Bourgeois Residence Hall Renovations	\$33,351,563
Lowell	Dandeneau Hall	\$16,438,124
Lowell	Fox Hall Elevators	\$15,812,973
Lowell	North Campus Quad Renewal Pod Project, Phase 1	\$18,700,000
Lowell	Olsen Hall	\$10,100,000
Lowell	Perry Hall	\$42,200,000
Lowell	Science & Engineering Master Plan-Olsen Renovations 1	\$9,974,010
Lowell	AEP	\$28,500,000
Lowell	Pasteur Second, Third, and Fourth Floors – Comprehensive Renovation	\$16,800,000
Lowell	Science & Engineering Master Plan-Perry Hall, Engineering, Renewal	\$40,098,956
Total		\$458,739,962



Medical School

About UMass 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 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.



Medical School: Revenue & Expenses

MEDICAL SCHOOL

(\$ in Thousands)

Revenues	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Gross Tuition & Fees	20,881	24,206	28,609	34,681	37,769	38,437	39,603
Tuition Discounts	(2,269)	(2,751)	(3,320)	(4,235)	(5,139)	(5,065)	(5,219)
Discount Rate	10.9%	11.4%	11.6%	12.2%	13.6%	29.2%	29.2%
Net Tuition & Fees	18,612	21,455	25,289	30,446	32,630	33,372	34,384
Grants	258,499	275,662	269,721	286,603	280,279	284,064	390,353
Sales & Service, Educational	12,443	12,790	14,023	15,023	17,190	12,828	12,828
Auxiliary Enterprises	29,271	29,626	30,797	31,561	32,675	32,551	31,456
Other Operating	258,246	190,611	268,909	183,268	194,723	188,117	185,005
State appropriations	50,634	52,250	54,560	57,959	57,396	51,382	56,980
Other NonOperating	5,699	37,945	27,800	32,008	26,059	21,369	21,494
Independent Business Lines	330,259	371,618	274,555	266,509	280,620	298,710	298,710
Total Revenues	963,663	991,957	965,654	903,377	921,572	922,393	1,031,210
% Growth	24.5%	2.9%	-2.7%	-6.4%	2.0%	0.1%	11.9%

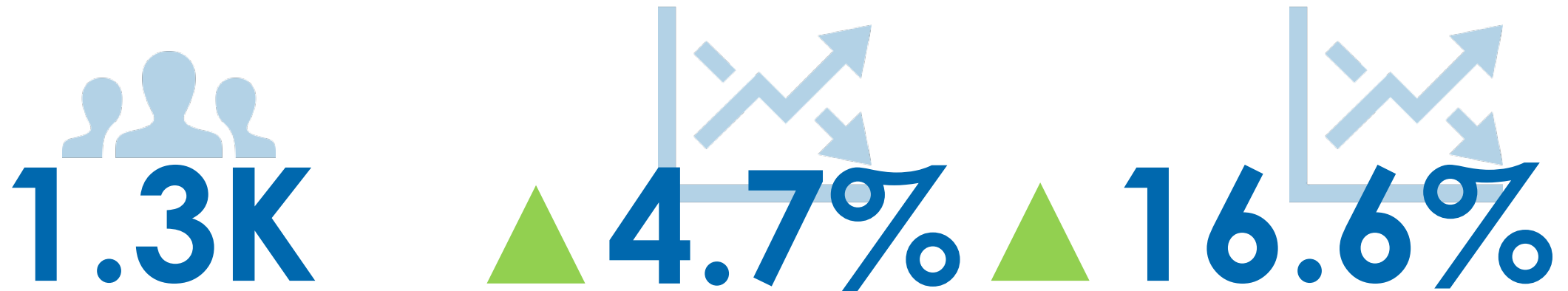
(\$ in Thousands)

Expenses	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Salaries & Fringe	407,159	407,304	416,112	433,752	438,008	454,402	505,811
Non-personnel	484,916	439,960	435,266	343,729	369,200	377,269	419,951
Scholarships and fellowships	-	-	-	-	-	-	-
Depreciation	65,133	64,801	65,013	64,722	65,478	62,601	62,601
Interest	30,658	30,067	26,753	24,830	19,256	21,109	20,252
Total Expenses	987,866	942,132	943,144	867,033	891,942	915,381	1,008,615
% Growth	21.7%	-4.6%	0.1%	-8.1%	2.9%	2.6%	13.1%

Operating Margin	Actual					Budget		Q1 Proj.
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021	
UMass OM Calc Revenues	977,267	972,803	964,299	898,882	919,648	920,433	1,029,250	
Total Expenses	987,866	942,132	943,144	867,033	891,942	915,381	1,008,615	
Surplus / (Deficit)	(10,599)	30,671	21,155	31,849	27,706	5,052	20,635	
UMass OM Calc	-1.1%	3.2%	2.2%	3.5%	3.0%	0.5%	2.0%	

Medical School Enrollment

MEDICAL SCHOOL GRADUATE ENROLLMENT: FALL 2020

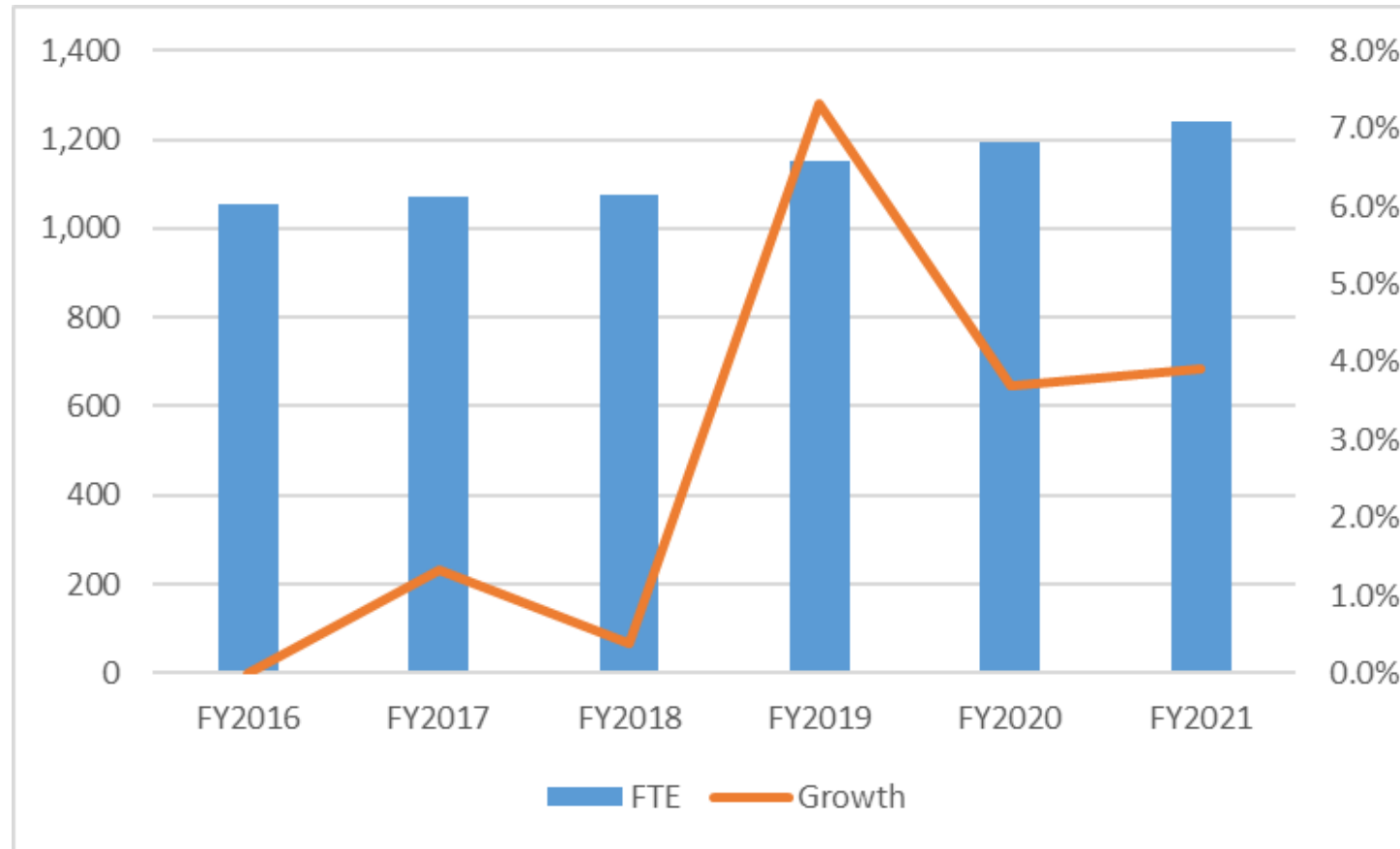


HEADCOUNT

Δ VS FALL 2019

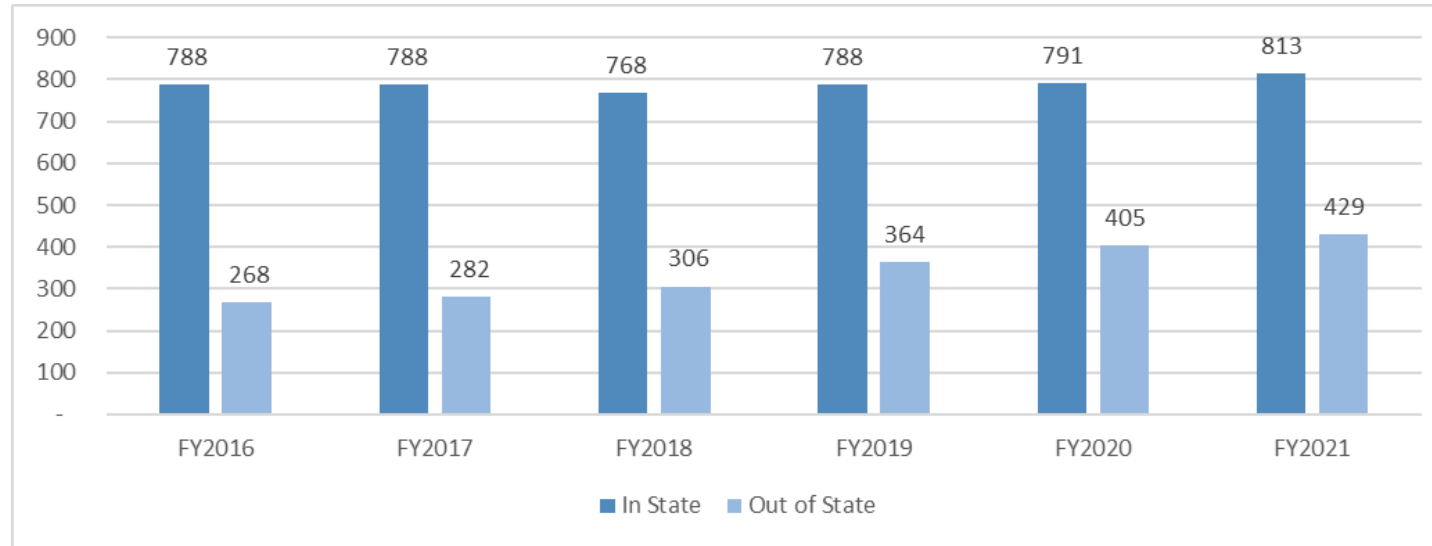
Δ VS FALL 2016

Medical School: Enrollment Trend



Source: Actuals from student profile.

Medical School: Enrollment by Residency



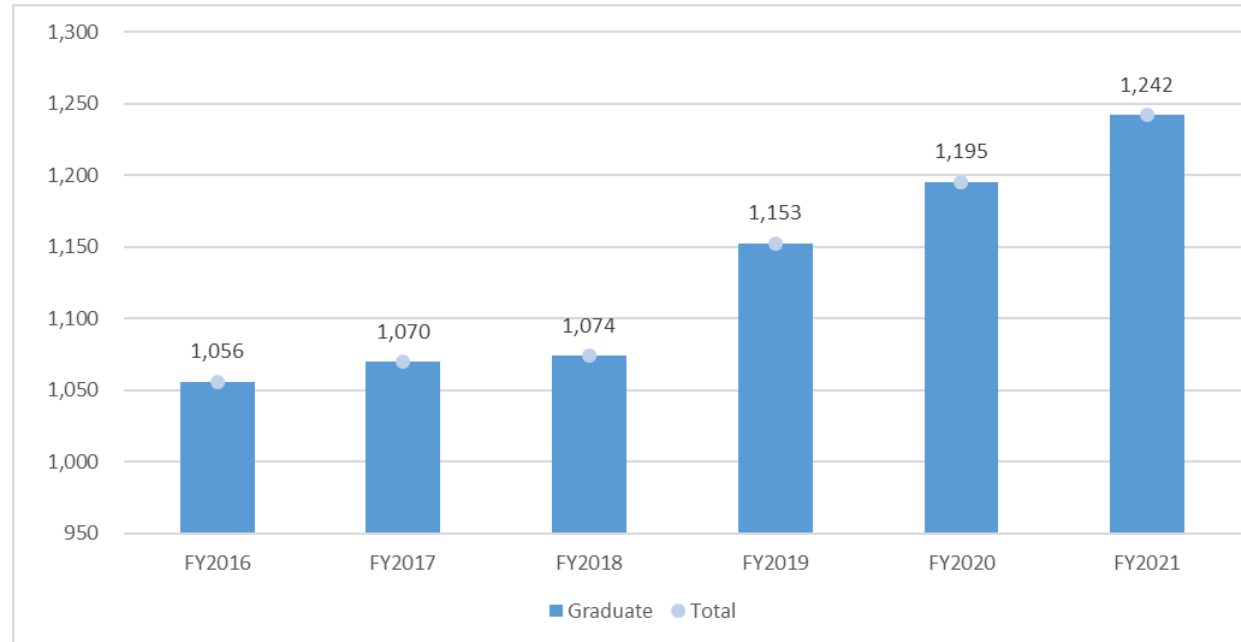
Medical School

Actual

Students (FTEs)	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
In State	788	788	768	788	791	813
% Change		0.0%	-2.5%	2.6%	0.3%	2.8%
Out of State	268	282	306	364	405	429
% Change		5.2%	8.5%	19.1%	11.0%	6.1%
Total	1,056	1,070	1,074	1,153	1,195	1,242
% Change		1.3%	0.4%	7.3%	3.7%	3.9%

Source: Actuals from student profile.

Medical School: Enrollment by Career



Medical School Students (FTEs)	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Graduate	1,056	1,070	1,074	1,153	1,195	1,242
% Change		1.3%	0.4%	7.3%	3.7%	3.9%
Total	1,056	1,070	1,074	1,153	1,195	1,242
% Change		1.3%	0.4%	7.3%	3.7%	3.9%

Source: Actuals from student profile.

Medical School: Staffing

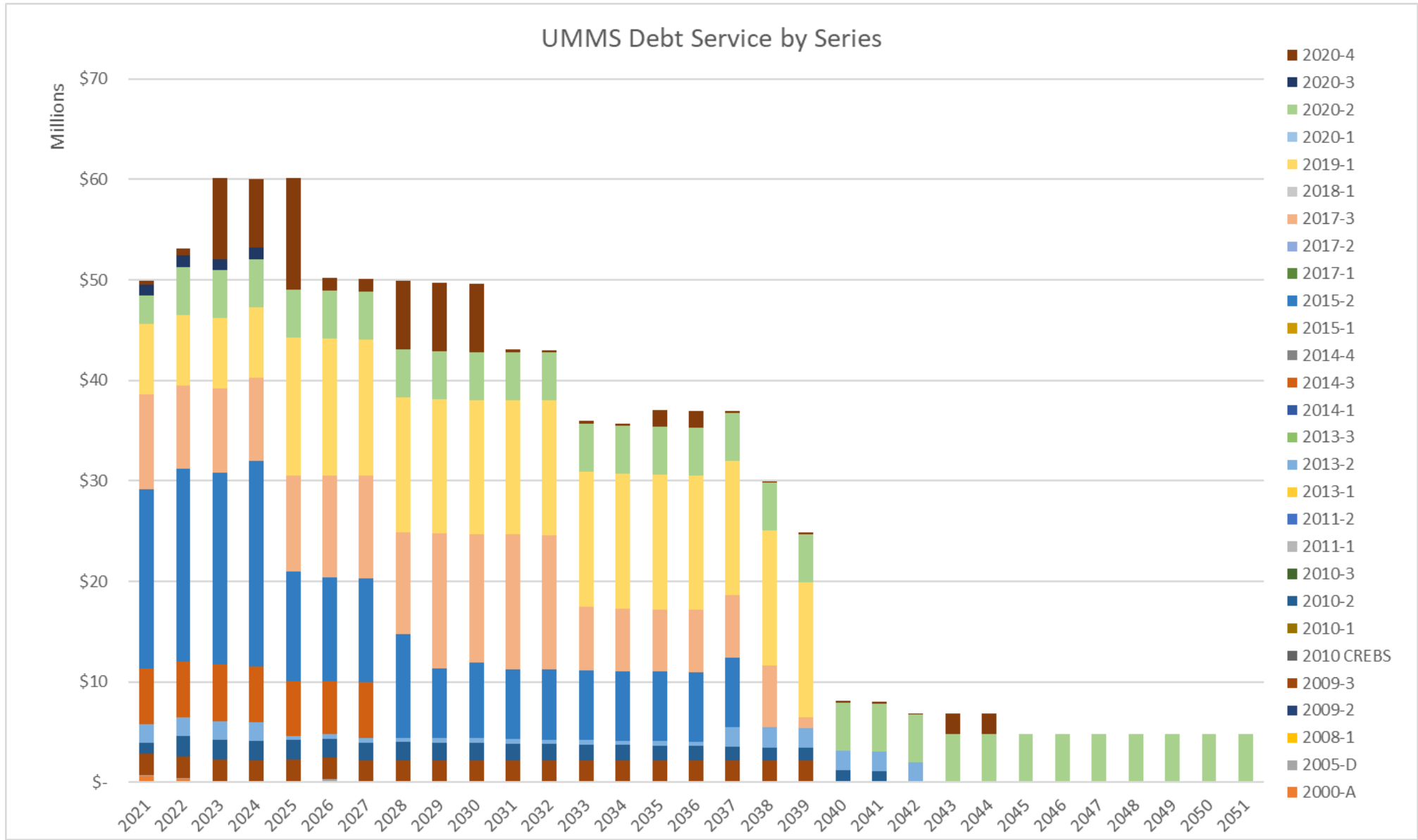
Employee FTEs	MEDICAL SCHOOL				
	Actual				
	FY2017	FY2018	FY2019	FY2020	FY2021
Restricted					
Faculty	174	242	246	240	241
Staff	687	890	879	833	857
Total Restricted	861	1,132	1,125	1,074	1,098
<i>FTE Change (#)</i>		270	(7)	(52)	24
Unrestricted General University Ops					
Faculty	218	215	209	214	221
Staff	1,020	1,017	1,021	1,034	1,024
Total General University Ops	1,238	1,232	1,231	1,248	1,245
<i>FTE Change (#)</i>		(6)	(1)	17	(3)
Unrestricted Aux./Independent Business					
Faculty	18	13	11	10	11
Staff	1,327	1,278	1,310	1,334	1,333
Total Aux./Independent Business	1,345	1,291	1,321	1,344	1,344
<i>FTE Change (#)</i>		(54)	30	24	(1)
Total Faculty & Staff	3,444	3,655	3,676	3,666	3,687
<i>FTE Change (#)</i>		210	22	(11)	21

Medical School: Key Ratios

Key Ratio	MEDICAL SCHOOL						
	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Operating Margin (%)	-1.1%	3.2%	2.2%	3.5%	3.0%	0.5%	2.0%
Operating Margin (\$)	(10,599)	30,671	21,155	31,849	27,308	5,052	20,635
Operating Cash Flow Margin (%)	8.7%	12.8%	11.5%	13.7%	12.6%	10.4%	10.8%
Operating Cash Flow Margin (\$)	85,444	124,814	110,201	123,144	116,794	96,021	112,445
Debt Service Burden (%)	5.2%	6.0%	5.1%	5.5%	4.9%	4.7%	4.2%
Debt Service Coverage (x)	1.7	2.2	2.3	2.6	2.7	2.3	2.6
Financial Leverage (x)	0.34	0.42	0.64	0.72	0.64	TBD	TBD
Total Debt (\$ in thousands)	684,484	661,505	636,468	607,744	668,225	643,156	643,156
Spendable Cash & Investments to Op Expenses (x)	0.23	0.30	0.43	0.50	0.48	TBD	TBD
Enrollment	1,056	1,070	1,074	1,153	1,195	1,204	1,242
Enrollment (% Change)	-1.4%	1.3%	0.4%	7.3%	3.7%	0.7%	3.9%

FY15 – FY20 Capital Review: Medical School Projects

Campus	Project	Adjusted Cost
Medical School	MBL South Coast GMP Renovations - Fall River	\$4,670,623
Medical School	Renovate and Expand BL3 Suite, 7th Fl	\$6,400,000
Medical School	REN - 4 Basic Research and Student Lab Wing Improvements Floors 1 - 4	\$16,000,000
Total		\$27,070,623



University

University: Revenue & Expenses

UNIVERSITY

(\$ in Thousands)

Revenues	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Gross Tuition & Fees	1,070,841	1,136,540	1,185,826	1,223,734	1,260,906	1,230,609	1,246,993
Tuition Discounts	(244,025)	(288,708)	(311,947)	(328,830)	(343,030)	(338,615)	(345,056)
Discount Rate	22.8%	25.4%	26.3%	26.9%	27.2%	27.5%	27.7%
Net Tuition & Fees	826,816	847,832	874,825	894,904	917,876	891,994	907,706
Grants	528,352	560,081	560,990	593,086	581,849	596,624	692,732
Sales & Service, Educational	27,500	28,910	30,591	34,984	31,248	19,555	19,270
Auxiliary Enterprises	383,281	400,822	416,733	441,795	378,314	291,009	207,247
Other Operating	307,286	233,717	311,119	222,076	179,034	231,214	228,605
State appropriations	669,748	720,817	751,894	780,222	810,518	738,016	816,169
Other NonOperating	162,741	195,089	197,142	231,504	222,128	204,198	206,912
Independent Business Lines	330,259	371,618	274,555	266,509	337,709	298,710	298,710
Total Revenues	3,235,982	3,358,886	3,417,849	3,465,080	3,458,676	3,271,319	3,377,350
% Growth	12.3%	3.8%	1.8%	1.4%	-0.2%	-5.4%	-2.4%

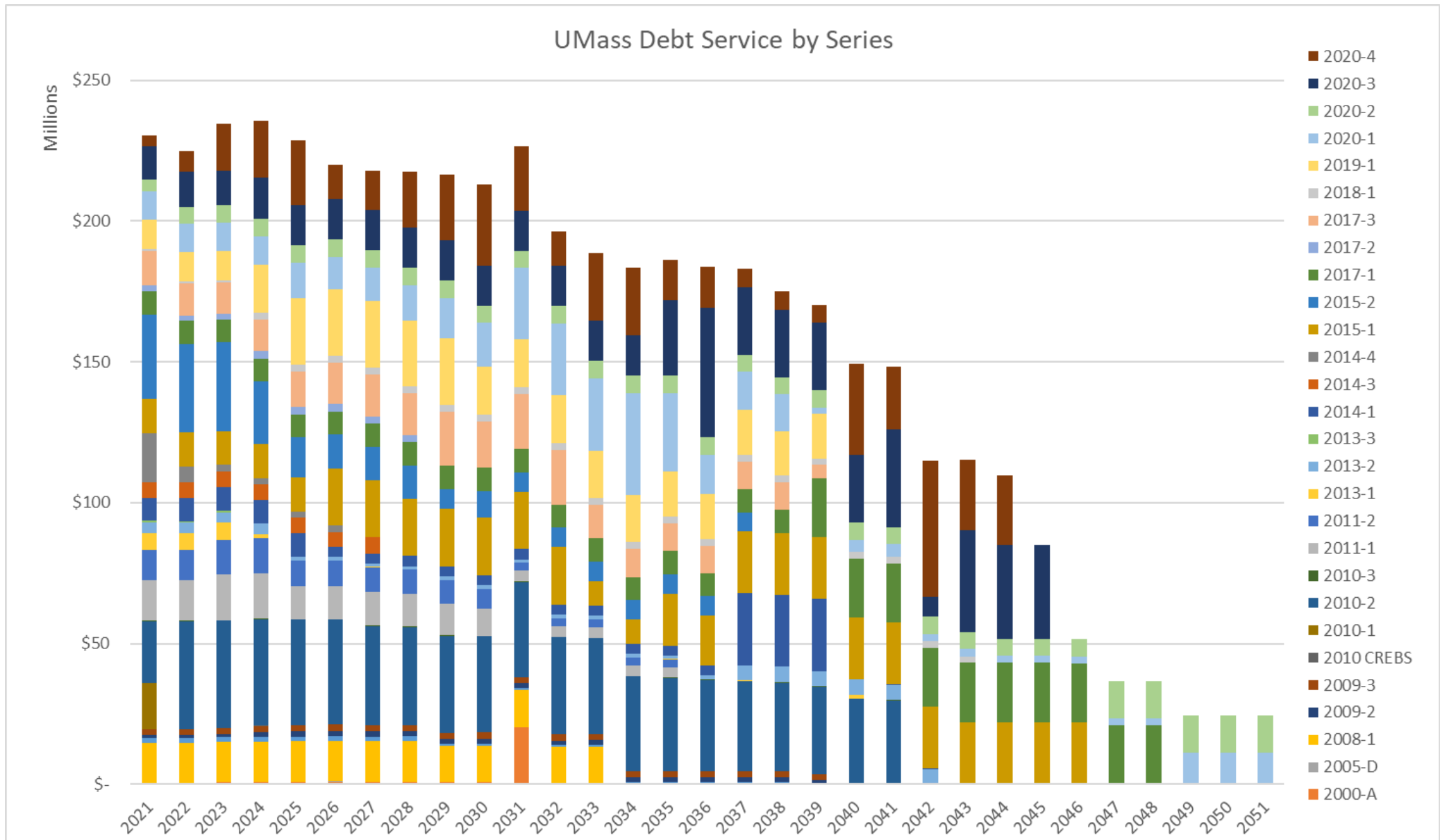
(\$ in Thousands)

Expenses	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Salaries & Fringe	1,788,018	1,847,346	1,901,896	1,970,869	2,096,087	1,939,933	1,969,403
Non-personnel	1,067,226	1,018,600	1,088,019	943,685	987,219	872,854	920,254
Scholarships and fellowships	44,645	47,706	50,402	49,507	65,469.00	55,250	59,076
Depreciation	240,864	249,669	261,417	276,638	288,667	294,522	296,945
Interest	105,276	110,069	115,851	116,217	109,186	108,829	110,167
Total Expenses	3,211,563	3,237,351	3,337,511	3,356,916	3,546,628	3,271,389	3,355,845
% Growth	11.4%	0.8%	3.1%	0.6%	5.7%	-7.8%	-5.4%

Operating Margin	Actual					Budget		Q1 Proj.	
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2021	FY2021	FY2021
UMass OM Calc Revenues	3,252,580	3,326,336	3,416,188	3,449,697	3,462,090	3,266,142	3,369,471		
Total Expenses	3,211,563	3,237,351	3,337,511	3,356,916	3,424,616	3,271,389	3,355,845		
Surplus / (Deficit)	41,017	88,985	78,677	92,781	37,474	(5,248)	13,625		
UMass OM Calc	1.3%	2.7%	2.3%	2.7%	1.1%	-0.2%	0.4%		

University: Key Ratios

Key Ratio	UNIVERSITY						
	Actual					FY2021	
	FY2016	FY2017	FY2018	FY2019	FY2020	Budget FY2021	Q1 Proj. FY2021
Operating Margin (%)	1.3%	2.7%	2.3%	2.7%	1.1%	-0.2%	0.4%
Operating Margin (\$)	41,017	88,985	79,928	92,781	37,474	(5,248)	13,625
Operating Cash Flow Margin (%)	12.0%	13.7%	13.2%	14.0%	13.1%	13.6%	14.6%
Operating Cash Flow Margin (\$)	385,596	447,796	443,101	475,586	447,301	442,079	494,605
Debt Service Burden (%)	6.2%	6.6%	6.5%	6.6%	6.2%	6.9%	6.7%
Debt Service Coverage (x)	1.9	2.1	2.1	2.1	2.0	2.0	2.2
Financial Leverage (x)	0.39	0.41	0.47	0.50	0.43	TBD	TBD
Total Debt (\$ in thousands)	2,858,343	3,056,133	3,067,106	3,119,251	3,687,795	3,152,981	-
Spendable Cash & Investments to Op Expenses (x)	0.35	0.40	0.44	0.47	0.45	TBD	TBD
Enrollment	63,334	63,978	64,530	65,348	66,005	62,752	66,070
Enrollment (% Change)	1.7%	1.0%	0.9%	1.3%	1.0%	-4.9%	0.1%



#11. 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 School • UMassOnline

Appendix A: Legislative Requirement

Legislative Requirement

Excerpt from line item 7100-0200 of Chapter 227 of the Acts of 2020:

Line item 7100-0200: *For the operation of the University of Massachusetts; provided, that notwithstanding any general or special law to the contrary, the university may establish and organize auxiliary organizations, subject to policies, rules and regulations adopted by the board, to provide essential functions that are integral to the educational mission of the university; provided further, that not later than March 15, 2021, the university shall meet with the chairs of the house and senate committees on ways and means and the chairs of the joint committee on higher education to review: (i) its five-year projected spending plan for academic years 2021 through 2026, including anticipated cost savings initiatives and efforts to reduce student tuition and fees; and (ii) a comprehensive report on spending over the previous academic year; provided further, that the report shall include, but not be limited to, for each year: (a) personnel costs, delineated by staff type and type of pay, including, but not limited to, base pay and bonus pay; (b) the number of full-time equivalent employees, delineated by staff type; (c) non-instructional administrative costs; (d) costs related to asset management and acquisition; (e) annual enrollment growth; (f) annual tuition and fee growth; (g) fee structure; (h) expenditures on direct student financial aid; (i) average financial aid award per financial aid recipient...*

Table of Legislative Requirements

Requirement	Page Numbers
<i>(i)</i> 5-Year Financial Forecast	To be filed following June 2021 BOT meeting
<i>(i)</i> Cost savings initiatives and efforts to reduce tuition and fees	171-211
<i>(ii, a)</i> Personnel costs, delineated by staff type and type of pay, including, but not limited to base pay and bonus pay	86-96
<i>(ii, b)</i> Number of full-time equivalent employees by staff type	97
<i>(ii, c)</i> Non-instructional administrative costs	84-85
<i>(ii, d)</i> Costs related to asset management and acquisition	108-128
<i>(ii, e)</i> Annual enrollment growth	33-43
<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	102-107
<i>(ii, i)</i> Average financial aid award per financial aid recipient	107

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

Appendix B: Tuition & Fees

In-State Tuition Increases: New England Public Universities

	Fall 2017	Fall 2018	Fall 2019	Fall 2020	% Increase Fall 19 - Fall 20
<i>New England:</i>					
University of New Hampshire	18,067	18,499	18,879	18,938	0.3%
University of Maine	10,902	11,170	11,449	11,712	2.3%
University of Rhode Island	13,792	14,138	14,566	15,004	3.0%
University of Massachusetts	14,012	14,365	14,722	14,722	0.0%
University of Vermont	17,740	18,276	18,802	19,062	1.4%
University of Connecticut	14,880	15,730	17,226	17,834	3.5%
<i>Average</i>					1.8%

In-State Tuition Increases: Massachusetts State Universities

	Fall 2017	Fall 2018	Fall 2019	Fall 2020	% Increase Fall 19 - Fall 20
<i>Massachusetts State Universities:</i>					
Fitchburg State	10,154	10,355	10,504	10,654	1.4%
Massachusetts College of Art & Design	12,700	13,200	13,700	14,200	3.6%
Bridgewater State	10,012	10,438	10,732	10,732	0.0%
Westfield State	9,716	10,430	10,850	11,140	2.7%
Salem State	10,278	10,885	11,284	11,674	3.5%
Worcester State	9,532	10,161	10,162	10,586	4.2%
Massachusetts Maritime Academy	8,398	9,728	10,018	10,314	3.0%
Framingham State	9,920	10,520	11,100	11,380	2.5%
Massachusetts College of Liberal Arts	10,136	10,560	10,930	11,306	3.4%
<i>Average</i>					2.7%

Tuition: Undergraduate

Undergraduate Tuition: In State

	FY20	FY21	\$ Change	% Change
Amherst	\$15,791	\$15,791	\$0	0.0%
Boston	\$14,187	\$14,187	\$0	0.0%
Dartmouth	\$13,833	\$13,833	\$0	0.0%
Lowell	\$15,078	\$15,078	\$0	0.0%

Undergraduate Tuition: Out of State

	FY20	FY21	\$ Change	% Change
Amherst	\$35,112	\$35,779	\$667	1.9%
Boston	\$34,649	\$34,649	\$0	0.0%
Dartmouth	\$29,578	\$29,578	\$0	0.0%
Lowell	\$33,004	\$33,004	\$0	0.0%

Mandatory Fees: Undergraduate

		FY20	FY21	\$ Change	% Change
Amherst	Technology Fee	\$350	\$400	\$50	14.3%
	Student Activities Fee	\$248	\$248	\$0	0.0%
	Total Mandatory Fees	\$598	\$648	\$50	8.4%
Boston	Technology Fee	\$350	\$400	\$50	14.3%
	Student Activities Fee	\$116	\$110	(\$6)	-5.2%
	Total Mandatory Fees	\$466	\$510	\$44	9.4%
Dartmouth	Technology Fee	\$350	\$400	\$50	14.3%
	Student Activities Fee	\$175	\$175	\$0	0.0%
	Total Mandatory Fees	\$525	\$575	\$50	9.5%
Lowell	Technology Fee	\$350	\$400	\$50	14.3%
	Student Activities Fee	\$220	\$220	\$0	0.0%
	Total Mandatory Fees	\$570	\$620	\$50	8.8%

- Technology Fee: Increase of \$50 for each campus.
- Student Activities Fee: Boston decrease for student voted MBTA charges

Tuition: Graduate

Graduate Tuition: In State

	FY20	FY21	\$ Change	% Change
Amherst	\$14,778	\$14,778	\$0	0.0%
Boston	\$18,433	\$18,433	\$0	0.0%
Dartmouth	\$16,390	\$16,390	\$0	0.0%
Lowell	\$14,590	\$14,590	\$0	0.0%

Graduate Tuition: Out of State

	FY20	FY21	\$ Change	% Change
Amherst	\$32,392	\$33,040	\$648	2.0%
Boston	\$35,980	\$35,980	\$0	0.0%
Dartmouth	\$29,578	\$29,578	\$0	0.0%
Lowell	\$26,370	\$26,370	\$0	0.0%

Mandatory Fees: Graduate

Mandatory Fees

		FY20	FY21	\$ Change	% Change
Amherst	Service Fee	\$1,270	\$1,270	\$0	0.0%
	Health Fee	\$787	\$803	\$16	2.0%
	Student Senate Fee	\$138	\$148	\$10	7.2%
	Total Mandatory Fees	\$2,195	\$2,221	\$26	1.2%
Boston	Technology Fee	\$350	\$400	\$50	14.3%
	Student Activities Fee	\$105	\$105	\$0	0.0%
	Total Mandatory Fees	\$455	\$505	\$50	11.0%
Dartmouth	Technology Fee	\$350	\$400	\$50	14.3%
	Student Activities Fee	\$175	\$175	\$0	0.0%
	Total Mandatory Fees	\$525	\$575	\$50	9.5%
Lowell	Technology Fee	\$350	\$400	\$50	14.3%
	Student Activities Fee	\$220	\$220	\$0	0.0%
	Total Mandatory Fees	\$570	\$620	\$50	8.8%

- Technology Fee: Increases of \$50 at UMB, UMD, & UML
- Student Activities Fee: No increases

Tuition & Mandatory Fees: Law School

Law School Tuition

	FY20	FY21	\$ Change	% Change
Law School In State	\$28,661	\$28,661	\$0	0.0%
Law School Regional	\$30,587	\$30,587	\$0	0.0%
Law School Out of State	\$37,569	\$37,569	\$0	0.0%

Mandatory Fees

	FY20	FY21	\$ Change	% Change
Technology Fee	\$350	\$400	\$50	14.3%
Student Activities Fee	\$175	\$175	\$0	0.0%
Total Mandatory Fees	\$525	\$575	\$50	9.5%

Room & Board

	FY20	FY21	\$Change	% Change
Amherst - Room	\$7,280	\$7,462	\$182	2.5%
Amherst - Board	\$5,724	\$5,867	\$143	2.5%
Lowell - Room	\$8,610	\$8,820	\$210	2.4%
Lowell - Board	\$4,450	\$4,560	\$110	2.5%

- Amherst & Lowell: Room rates based on standard shared room.

	FY20	FY21	\$Change	% Change
Boston - Room	\$9,720	\$10,024	\$304	3.1%
Boston - Board	\$5,550	\$5,717	\$167	3.0%
Dartmouth - Room	\$9,030	\$9,482	\$452	5.0%
Dartmouth - Board*	\$4,840	\$5,233	\$393	8.1%

*FY21 change in meal plan structure; not comparing like plans between FY20 and FY21.

- Boston: Room rates set by P3 Governing Board and are not subject to Board approval; Dining rates set by the University and approved by University Board.
- Dartmouth: Room rate based on standard shared room. Note: P3 room rates are set by P3 Governing Board and are not subject to Board approval.

Tuition, Mandatory Fees, Room & Board: Undergraduate

Tuition, Mandatory Fees, Room & Board: In State

	FY20	FY21	\$ Change	% Change
Amherst	\$29,393	\$29,768	\$375	1.3%
Boston	\$29,923	\$30,438	\$515	1.7%
Dartmouth	\$28,228	\$29,123	\$895	3.2%
Lowell	\$28,708	\$29,078	\$370	1.3%
Average ⁺	\$29,063	\$29,601	\$539	1.9%

+Not weighted.

Tuition, Mandatory Fees, Room & Board: Out of State

	FY20	FY21	\$ Change	% Change
Amherst	\$48,714	\$49,756	\$1,042	2.1%
Boston	\$50,385	\$50,900	\$515	1.0%
Dartmouth	\$43,973	\$44,867	\$895	2.0%
Lowell	\$46,634	\$47,004	\$370	0.8%
Average ⁺	\$47,427	\$48,132	\$705	1.5%

+Not weighted.

UNIVERSITY OF MASSACHUSETTS, AMHERST

STUDENT TUITION & FEE SCHEDULES

FY 2021 TUITION & MANDATORY FEES

FY 2021 NON-MANDATORY FEES

FY 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2021 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

FY 2021 TUITION & MANDATORY FEES

SUMMARY TABLE

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (resident)	\$15,406	\$15,791	\$15,791	\$0	0.0%
Undergraduate (regional)	\$27,152	\$28,175	\$28,842	\$667	2.4%
Undergraduate (non-resident)	\$34,089	\$35,112	\$35,779	\$667	1.9%
MANDATORY FEES					
Shared Infrastructure Technology Fee	\$250	\$350	\$400	\$50	14.3%
Student Activities	\$231	\$248	\$248	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (resident)	\$15,887	\$16,389	\$16,439	\$50	0.3%
Undergraduate (regional)	\$27,633	\$28,773	\$29,490	\$717	2.5%
Undergraduate (non-resident)	\$34,570	\$35,710	\$36,427	\$717	2.0%
RESIDENTS ONLY					
Rent and Residential Telecommunications	\$7,068	\$7,280	\$7,462	\$182	2.5%
Board	\$5,558	\$5,724	\$5,867	\$143	2.5%
TOTAL RENT, TELCOM, BOARD	\$12,626	\$13,004	\$13,329	\$325	2.5%
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (resident)	\$28,513	\$29,393	\$29,768	\$375	1.3%
Undergraduate (regional)	\$40,259	\$41,777	\$42,819	\$1,042	2.5%
Undergraduate (non-resident)	\$47,196	\$48,714	\$49,756	\$1,042	2.1%
<u>GRADUATE</u>					
TUITION					
Graduate (resident)	\$14,348	\$14,778	\$14,778	\$0	0.0%
Graduate (regional)	\$26,132	\$27,075	\$27,723	\$648	2.4%
Graduate (non-resident)	\$31,449	\$32,392	\$33,040	\$648	2.0%
MANDATORY FEES					
Graduate Service Fee	\$1,270	\$1,270	\$1,270	\$0	0.0%
Graduate Health Fee	\$768	\$787	\$803	\$16	2.0%
Graduate Student Senate Fee	\$138	\$138	\$148	\$10	7.2%
TOTAL MANDATORY FEES & TUITION					
Graduate (resident)	\$16,524	\$16,973	\$16,999	\$26	0.2%
Graduate (regional)	\$28,308	\$29,270	\$29,944	\$674	2.3%
Graduate (non-resident)	\$33,625	\$34,587	\$35,261	\$674	1.9%

FY 2021 NON-MANDATORY FEES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
Commonwealth College Welcome Weekend Orientation (in AIA Fund)	\$90	\$90	\$90	\$0	0.0%
Campus Fee Fund :					
Continuing Ed Campus Fee / per credit	\$221	\$226	\$230	\$4	1.8%
Graduate Entering	\$507	\$507	\$507	\$0	0.0%
Undergraduate Senior Status	\$110	\$110	\$110	\$0	0.0%
Commonwealth College Fee (annual)	\$600	\$600	\$600	\$0	0.0%
New Student Enrollment Fee:					
Undergraduate	\$485	\$485	\$485	\$0	0.0%
Undergraduate - Stockbridge	\$377	\$377	\$377	\$0	0.0%
Undergraduate - Transfer	\$385	\$385	\$385	\$0	0.0%
Career Services:					
Credentials Packet (Undergraduate)	\$2	\$2	\$2	\$0	0.0%
Credentials Packet (Graduate)	\$3	\$3	\$3	\$0	0.0%
Communication Network Services (formerly Telecommunications):					
Family Housing Tenants (per month)	\$30	\$30	\$30	\$0	0.0%
Summer Telephone Fee (per month)	\$30	\$30	\$30	\$0	0.0%
Summer CE Telephone Fee (per session)	\$30	\$30	\$30	\$0	0.0%
Computer Science Computing Facility:					
Computer Account for CE Courses (per semester)	\$45	\$45	\$45	\$0	0.0%
Domestic Exchange:					
Outgoing Application	\$230	\$230	\$230	\$0	0.0%
Incoming Orientation	\$150	\$150	\$150	\$0	0.0%
Post Conference Application	\$300	\$300	\$300	\$0	0.0%
Engineering Fee (annual)					
Undergraduate:					
12+ Credits	\$830	\$830	\$830	\$0	0.0%
6-11 credits	\$570	\$570	\$570	\$0	0.0%
1-5 Credits	\$310	\$310	\$310	\$0	0.0%
Graduate:					
5+ Credits	\$830	\$830	\$830	\$0	0.0%
1-4 Credits	\$440	\$440	\$440	\$0	0.0%
Graduate Registrar Fees:					
Continuous Enrollment Fee (was Program Fee)	\$275	\$275	\$285	\$10	3.6%
Readmission Fee	\$125	\$125	\$125	\$0	0.0%
Doctoral Hoods	\$65	\$65	\$75	\$10	15.4%
Graduate Student Senate					
Graduate Student Senate Fee (Continuous Enrollment Students)	\$69	\$69	\$74	\$5	7.2%

FY 2021 NON-MANDATORY FEES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
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	\$860	\$875	\$895	\$20	2.3%
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	\$75	\$95	\$95	\$0	0.0%
American Culture & Language Program Fee (incl. TOEFL Test)	\$150	\$95	\$95	\$0	0.0%
Trip & Excursion Fee for International Students	\$5 - \$100	\$5 - \$100	\$5 - \$100	\$0	0.0%
Student Orientation Fee - Fall	\$75	\$75	\$75	\$0	0.0%
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	\$355	\$365	\$375	\$10	2.7%
Student Services Fee (per semester) *	\$100	\$200	\$200	\$0	0.0%
Isenberg School of Management Fee (annual)					
Undergraduate					
12+ Credits	\$1,000	\$1,000	\$1,000	\$0	0.0%
6-11 credits	\$690	\$690	\$690	\$0	0.0%
1-5 Credits	\$375	\$375	\$375	\$0	0.0%
College of Information and Computer Science Fee (annual)					
Undergraduate					
12+ Credits		\$850	\$850	\$0	0.0%
6-11 credits		\$580	\$580	\$0	0.0%
1-5 Credits		\$320	\$320	\$0	0.0%
Lab Fees					
Undergraduate Course Lab Fee	\$95	\$95	\$95	\$0	0.0%
Registrar Services					
Credit by Exam Fee	\$5	\$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%
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)	\$773	\$843	\$843	\$0	0.0%
Graduate Student Per Semester Plan (6 months)	\$1,485	\$1,480	\$1,480	\$0	0.0%
Family Per Semester Plan (6 months)	\$3,000	\$3,000	\$3,000	\$0	0.0%

FY 2021 NON-MANDATORY FEES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
UCard					
U Card Replacement (Lost/Stolen)	\$30	\$30	\$30	\$0	0.0%
U Card Replacement (Damaged)	\$15	\$15	\$15	\$0	0.0%
UWW Advising/Assessment:					
Enrollment Fee	\$75	\$75	\$75	\$0	0.0%
Advising/semester	\$150	\$150	\$150	\$0	0.0%
Prior Learning (1-15 Credits)	\$800	\$800	\$800	\$0	0.0%
Prior Learning (16-18 Credits)	\$1,100	\$1,100	\$1,100	\$0	0.0%
Prior Learning (19-21 Credits)	\$1,400	\$1,400	\$1,400	\$0	0.0%
Prior Learning (22-25 Credits)	\$1,700	\$1,700	\$1,700	\$0	0.0%
Prior Learning (26-29 Credits)	\$2,000	\$2,000	\$2,000	\$0	0.0%
Prior Learning (30+ Credits)	\$2,200	\$2,200	\$2,200	\$0	0.0%
Special Transcript Fee	\$75	\$75	\$75	\$0	0.0%
Vet Tech Program Majors Fee (annual)	\$500	\$500	\$500	\$0	0.0%
Vet Tech Senior Seminar Registration Fee	\$0	\$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 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
Auxiliary Services					
Basic Plan (224 meals per semester/annual)	\$5,558	\$5,724	\$5,867	\$143	2.5%
DC Unlimited Plan, no Dining \$, no Guest (annual rate)	\$0	\$5,824	\$5,970	\$146	2.5%
Unlimited 250 Plan (annual rate)	\$6,134	\$6,318	\$6,476	\$158	2.5%
Platinum Plan (200 meals per semester)/annual	\$5,424	\$5,586	\$5,726	\$140	2.5%
Gold Plan (100 meals per semester) / annual	\$2,954	\$3,042	\$3,118	\$76	2.5%
Commuter Plan (65 meals per semester) / annual	\$1,712	\$1,764	\$1,808	\$44	2.5%
Commuter Plan (155 meals per semester) / annual	\$3,750	\$3,862	\$3,959	\$97	2.5%
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)	\$6,538	\$6,734	\$6,902	\$168	2.5%
Summer/Winter YCMP (20 meals) *	\$220	\$220	\$225	\$5	2.3%
Kosher Surcharge	\$400	\$400	\$400	\$0	0.0%
Meal Plan Change Administrative Fee	\$250	\$250	\$250	\$0	0.0%
Early Arrival Meal Plan	\$55	\$55	\$55	\$0	0.0%
Continuing Education					
Recording Fee, CEU Credits	\$30	\$30	\$30	\$0	0.0%
Readmission Fee	\$60	\$60	\$60	\$0	0.0%
Credit/Recording Fee	\$100	\$100	\$100	\$0	0.0%
Registration (credit)	\$47	\$47	\$47	\$0	0.0%
Registration (non-credit)	\$25	\$25	\$25	\$0	0.0%
Entering Fee (CPE matriculated UG students)	\$135	\$135	\$135	\$0	0.0%
Matriculating Student On-Site (per credit)					
Undergraduate In-State	\$402	\$414	\$445	\$31	7.5%
Undergraduate Out-of-State	\$712	\$733	\$788	\$55	7.5%
Graduate In-State	\$474	\$488	\$525	\$37	7.6%
Graduate Out-of-State	\$812	\$836	\$899	\$63	7.5%
Non-Matriculating Student On-Site (per credit)					
Undergraduate	\$402	\$414	\$445	\$31	7.5%
Graduate	\$474	\$488	\$525	\$37	7.6%
On-Line (per credit)					
Undergraduate	\$402	\$414	\$445	\$31	7.5%
Graduate	\$474	\$488	\$525	\$37	7.6%
Off Campus Special Programs (per credit) **	\$100-\$1,900	\$100-\$1,900	\$100-\$1,900	\$0	0.0%
Non-Matriculated Students Transcript Fee ****	\$6	\$6	\$6	\$0	0.0%
CPE Nursing 2nd Bachelor Orientation Fee	\$500	\$500	\$500	\$0	0.0%
Thesis, Dissertation, Special Programs (per credit)	\$195	\$195	\$195	\$0	0.0%
Bad Check Charge	\$30	\$0	\$0	Fee Eliminated	N/A
Late Course Add Fee	\$60	\$60	\$60	\$0	0.0%
Parking					
All Students					
Green Lot	\$360	\$371	\$383	\$12	3.2%
Purple Lot	\$323	\$333	\$343	\$10	3.0%
Yellow Lot	\$262	\$270	\$279	\$9	3.3%
Employees and GEO					
Red Lot (Employee only)	\$141-\$497	\$142-\$570	\$151-\$628	\$9-\$58	6.3%-10.2%
Blue Lot	\$100-\$420	\$101-\$485	\$107-\$535	\$6-\$50	5.9%-10.3%
Green Lot	\$75-\$252	\$75-\$289	\$80-\$318	\$5-\$29	6.7%-10%
Purple Lot	\$68-\$232	\$69-\$265	\$73-\$292	\$4-\$27	5.8%-10.2%

FY 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
Yellow Lot	\$50-\$80	\$50-\$87	\$53-\$94	\$3-\$7	6%-8%
Other Permit Fees					
Portable Permits	\$12	\$12	\$13	\$1	8.3%
Residence Halls & Family Housing:					
Family Housing (rents are per month)					
<u>North Village:</u>					
1 Bedroom	\$864	\$890	\$912	\$22	2.5%
1 Bedroom Handicapped	\$864	\$890	\$912	\$22	2.5%
1 Bedroom IPO (furnished)	\$895	\$920	\$943	\$23	2.5%
1 Bedroom Handicapped (tenant not handicapped)	\$885	\$910	\$933	\$23	2.5%
2 Bedroom	\$1,010	\$1,040	\$1,066	\$26	2.5%
2 Bedroom Handicapped	\$1,010	\$1,040	\$1,066	\$26	2.5%
2 Bedroom Handicapped (tenant not handicapped)	\$1,031	\$1,060	\$1,087	\$27	2.5%
<u>Residence Halls</u>					
Standard Shared Room	\$6,797	\$7,001	\$7,176	\$175	2.5%
Single Room (includes Sylvan Double as Single Room)	\$9,040	\$9,311	\$9,544	\$233	2.5%
Sylvan Suite Singles	\$8,220	\$8,465	\$8,677	\$212	2.5%
Sylvan Suites Shared	\$6,180	\$6,365	\$6,524	\$159	2.5%
North Apartments Single Room (9 months)	\$12,460	\$12,834	\$13,155	\$321	2.5%
Commonwealth Honors College Residential Complex					
Single Apartments	\$12,460	\$12,834	\$13,155	\$321	2.5%
Single Suites	\$10,850	\$11,173	\$11,452	\$279	2.5%
Shared Apartments	\$9,365	\$9,650	\$9,891	\$241	2.5%
Single Rooms	\$9,865	\$10,157	\$10,411	\$254	2.5%
Suite Shared	\$8,155	\$8,401	\$8,611	\$210	2.5%
Shared Rooms	\$7,415	\$7,637	\$7,828	\$191	2.5%
<u>Lincoln Apartments</u>					
Studio, Furnished (9 months)	\$9,845	\$10,140	\$10,394	\$254	2.5%
1 Bedroom, Furnished (9 months)	\$11,410	\$11,752	\$12,046	\$294	2.5%
2 Bedrooms, Furnished (9 months)	\$9,130	\$9,404	\$9,639	\$235	2.5%
Residential Telecommunications Fee	\$271	\$279	\$286	\$7	2.5%
Cancellation Fee	\$100-\$500	\$100-\$500	\$300-\$600	\$100-\$200	20%-200%
Break Housing (add to rent)	\$600	\$600	\$600	\$0	0.0%
<u>Daily and Summer Student Fees / Per Day</u>					
Shared	\$32	\$33	\$34	\$1	3.0%
Single Occupancy (including Sylvan Double as Single)	\$43	\$44	\$45	\$1	2.3%
Early Arrival Fee (per/diem)	\$60	\$60	\$60	\$0	0.0%
Residence Halls Surcharges:					
Expanded Single	\$400	\$400	\$400	\$0	0.0%
Double used for Single	\$1,600	\$1,600	\$1,600	\$0	0.0%
Triple used for Double	\$800	\$800	\$800	\$0	0.0%
Triple used for Single	\$1,600	\$1,600	\$1,600	\$0	0.0%
Quad used for Triple	\$800	\$800	\$800	\$0	0.0%
Quad used for Double	\$900	\$900	\$900	\$0	0.0%
Quad used for Single	\$1,600	\$1,600	\$1,600	\$0	0.0%
Economy Triple used for Double	\$0	\$0	\$500	New Fee	N/A
Economy Triple used for Single	\$0	\$0	\$1,600	New Fee	N/A
Admin Check-In Fee	\$0	\$25	\$25	\$0	0.0%
Improper Room Checkout Fees:					

FY 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
During Academic Year, not during Opening Period	\$150	\$150	\$150	\$0	0.0%
During Early Arrival time period, Winter Session	\$175	\$175	\$175	\$0	0.0%
During Opening day and thereafter, Spring	\$250	\$250	\$250	\$0	0.0%
During Opening Week and thereafter, Spring	\$400	\$400	\$400	\$0	0.0%
Unauthorized Occupancy of Residence Hall Space	\$150	\$150	\$150	\$0	0.0%

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

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

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

FY 2021 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
Application Fee:					
Undergraduate	\$80	\$80	\$85	\$5	6.3%
Graduate Instate	\$80	\$80	\$80	\$0	0.0%
Graduate Out-of-State	\$80	\$80	\$80	\$0	0.0%
Graduate International	\$80	\$80	\$80	\$0	0.0%
Bursar Administrative Fees:					
Student Bill Late Payment Fee	maximum of \$100	5% of Balance to maximum of \$100	5% of Balance to maximum of \$100	\$0	0.0%
Returned Check Fee	\$25	\$25	\$25	\$0	0.0%
Engineering Computer Services:					
Undergraduate & Graduate Computer Fee (Summer)	\$10	\$10	\$10	\$0	0.0%
Student Activities:					
Craft Center	\$7 - \$25	\$7 - \$25	\$7 - \$25	\$0	0.0%
Union Video Center	\$5 - \$40	\$5 - \$40	\$5 - \$40	\$0	0.0%
Student Legal Services Office:					
Stockbridge Student Pro-Rated Activities Fee	\$102	\$102	\$102	\$0	0.0%
Simple Wills & Trusts	\$50-\$200	\$50-\$200	\$50-\$200	\$0	0.0%
Contracts	\$25-\$200	\$25-\$200	\$25-\$200	\$0	0.0%
Settlement Demand Letters	\$25-\$200	\$25-\$200	\$25-\$200	\$0	0.0%
Durable Power of Attorney	\$25-\$50	\$25-\$50	\$25-\$50	\$0	0.0%
Health Care Proxy	\$25	\$25	\$25	\$0	0.0%
Power of Attorney	\$25-\$50	\$25-\$50	\$25-\$50	\$0	0.0%
Mediation & Arbitration (per hour)	\$25-\$50	\$25-\$50	\$25-\$50	\$0	0.0%
Referral Fee (\$150 min.)	15%-33.3%	15%-33.3%	15%-33.3%	\$0	0.0%
Litigation Services Flat Fee	\$100 - \$1,500	\$100 - \$1,500	\$100 - \$1,500	\$0	0.0%
Contingency Fee Litigation	25% - 33.3%	25% - 33.3%	25% - 33.3%	\$0	0.0%
Pro Se Court Pleadings & Documents	\$50 - \$750	\$50 - \$750	\$50 - \$750	\$0	0.0%
Separation Agreement	\$50 - \$750	\$50 - \$750	\$50 - \$750	\$0	0.0%
Student Health:					
Summer Basic CE (6/1 - 7/31)	\$479	\$491	\$501	\$10	2.0%
Summer Basic CE - per Week	\$60	\$62	\$63	\$1	1.6%
Family Fall (8/1 - 1/31)	\$1,270	\$1,302	\$1,328	\$26	2.0%
Family Spring (2/1 - 7/31)	\$1,270	\$1,302	\$1,328	\$26	2.0%
Graduate < 5 Credits per semester	\$384	\$394	\$401	\$8	1.9%
GEO < 5 Credits per semester	\$384	\$394	\$401	\$8	1.9%
CE > 3 credits / UWW / Program Fee per semester	\$384	\$394	\$401	\$8	1.9%

UNIVERSITY OF MASSACHUSETTS, BOSTON

STUDENT TUITION & FEE SCHEDULES

FY 2021 TUITION & MANDATORY FEES

FY 2021 NON-MANDATORY FEES

FY 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2021 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

**FY 2021 TUITION & MANDATORY FEES
SUMMARY TABLE**

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (resident)	\$13,841	\$14,187	\$14,187	\$0	0.0%
Undergraduate New England Regional ¹	\$26,453	\$27,247	\$24,827	(\$2,420)	-8.9%
Undergraduate (non-resident)	\$33,640	\$34,649	\$34,649	\$0	0.0%
MANDATORY FEES					
Student Activities (Undergraduate)	\$76	\$116	\$110	(\$6)	-5.2%
Technology	\$250	\$350	\$400	\$50	14.3%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (resident)	\$14,167	\$14,653	\$14,697	\$44	0.3%
Undergraduate (NER)	\$26,779	\$27,713	\$25,337	(\$2,376)	-8.6%
Undergraduate (non-resident)	\$33,966	\$35,115	\$35,159	\$44	0.1%
RESIDENTS ONLY					
Standard Room ²	\$9,468	\$9,720	\$10,024	\$304	3.1%
Standard Board (meal plan)	\$5,390	\$5,550	\$5,717	\$167	3.0%
Subtotal	\$14,858	\$15,270	\$15,741		
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (resident)	\$29,025	\$29,923	\$30,438	\$515	1.7%
Undergraduate (NER)	\$41,637	\$42,983	\$41,078	(\$1,905)	-4.4%
Undergraduate (non-resident)	\$48,824	\$50,385	\$50,900	\$515	1.0%
<u>GRADUATE</u>					
TUITION					
Graduate (resident)	\$17,896	\$18,433	\$18,433	\$0	0.0%
Graduate New England Regional ¹	\$29,059	\$29,931	\$32,258	\$2,327	7.8%
Graduate (non-resident)	\$34,932	\$35,980	\$35,980	\$0	0.0%
MANDATORY FEES					
Student Activities (Graduate)	\$105	\$105	\$105	\$0	0.0%
Technology	\$250	\$350	\$400	\$50	14.3%
TOTAL MANDATORY FEES & TUITION					
Graduate (resident)	\$18,251	\$18,888	\$18,938	\$50	0.3%
Graduate (NER)	\$29,414	\$30,386	\$32,763	\$2,377	7.8%
Graduate (non-resident)	\$35,287	\$36,435	\$36,485	\$50	0.1%

FY 2021 NON-MANDATORY FEES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
Program Fees					
Management (except online)					
Undergraduate per Semester (Fall / Spring)	\$468	\$468	\$468	\$0	0%
Undergraduate (Winter / Summer)	\$234	\$234	\$234	\$0	0%
Graduate per Semester (Fall / Spring)	\$950	\$950	\$950	\$0	0%
Graduate (Winter / Summer)	\$475	\$475	\$475	\$0	0%
Nursing (except online)					
Undergraduate Students (Fall / Spring)	\$500	\$500	\$500	\$0	0%
Undergraduate Program (Winter / Summer)	\$250	\$250	\$250	\$0	0%
Graduate Students (Fall / Spring)	\$700	\$700	\$700	\$0	0%
Graduate Program (Winter / Summer)	\$350	\$350	\$350	\$0	0%
E&HS					
Undergraduate Students (Fall / Spring)	\$400	\$400	\$400	\$0	0%
Undergraduate Program (Winter / Summer)	\$200	\$200	\$200	\$0	0%
Graduate Students (Fall / Spring)	\$700	\$700	\$700	\$0	0%
Graduate Program (Winter / Summer)	\$350	\$350	\$350	\$0	0%
CLA Infant Parent Mental Health Graduate Certificate					
Program fee	\$9,500	\$9,500	\$11,000	\$1,500	16%
Application fee	\$75	\$75	\$100	\$25	33%
Boston Advanced Academic Consortium	\$0	\$500	\$500	\$0	0%
Laboratory Fees					
Anthropology	\$61	\$61	\$61	\$0	0%
Art	\$112 - \$168	\$112 - \$168	\$112 - \$168	\$0	0%
Biology	\$100 - \$140	\$100 - \$140	\$100 - \$140	\$0	4%
Chemistry	\$140	\$140	\$0-\$140	\$0	0%
Performing Arts	\$5 - \$35	\$5 - \$35	\$5 - \$35	\$0	0%
Computer Science	\$22 - \$55	\$22 - \$55	\$22 - \$55	\$0	0%
School for the Environment	\$50 - \$300	\$50 - \$300	\$50-\$300	\$0	0%
Exercise & Health Sciences	\$55 - \$67	\$55 - \$67	\$55-\$67	\$0	0%
College of Ed & Human Development	\$21 - \$136	\$22 - \$140	\$23-\$144	\$1-\$4	3%
Language Lab	\$26 - \$55	\$26 - \$55	\$26 - \$55	\$0	0%
Mathematics	\$55	\$20-\$55	\$20-\$55	\$0	0%
Nursing	\$34 - \$348	\$34 - \$348	\$34-\$348	\$0	0%
Physics	\$33 - \$90	\$33 - \$90	\$33 - \$90	\$0	0%
Engineering	\$60 - \$120	\$60 - \$120	\$60 - \$120	\$0	0%
Psychology	\$25 - \$72	\$25 - \$72	\$25 - \$72	\$0	0%
Administrative Fees					
Admissions Processing - Undergraduate International	\$100	\$100	\$100	\$0	0%
Admissions Processing - Undergraduate Non-Resident	\$60	\$60	\$60	\$0	0%
Admissions Processing - Undergraduate Resident	\$60	\$60	\$60	\$0	0%
Admissions Processing - Undergrad Late Registration Fee	\$100	\$100	\$100	\$0	0%
Admissions Processing - Undergrad Deposit Fee	\$200	\$200	\$200	\$0	0%
Admissions Processing - Boston Advanced Academic Consortium	\$0	\$500	\$500	\$0	0%
Admissions Processing - Undergrad Non Degree	\$60	\$60	\$60	\$0	0%
Admissions Processing - Undergrad Summer I,II	\$100	\$100	\$100	\$0	0%
Admissions Processing - Graduate International	\$100	\$100	\$75	(\$25)	-25%
Admissions Processing - Graduate Non-Resident	\$60	\$60	\$75	\$15	25%
Admissions Processing - Graduate Resident	\$60	\$60	\$75	\$15	25%
Admissions Processing - Graduate Deposit Fee	\$250	\$250	\$250	\$0	0%
Admissions Processing - Graduate Deferral Fee	\$25	\$25	\$0	(\$25)	-100%
Graduate Studies Program Fee	\$450	\$450	\$450	\$0	0%
E-Portfolio Annual Fee - CEHD (MA)	\$65	\$65	\$50	(\$15)	-23%
E-Portfolio One Time Fee - CEHD (PHD)	\$65	\$65	\$140	\$75	115%
E-Portfolio Fee - GISD (Vision Studies)	\$65	\$132	\$139	\$7	5%

FY 2021 NON-MANDATORY FEES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
E-Portfolio Fee - GISD (Rehabilitation Counseling)	\$65	\$132	\$197	\$65	49%
ABSN Technology & Book Fee		\$1,400	\$1,400	\$0	0%
CNHS New Student Background Check Fee		\$400	\$400	\$0	0%
Late Payment	\$50	\$50	\$50	\$0	0%
Payment Plan Fee (a)	\$47	\$47	\$47	\$0	0%
Returned Check Fee	\$28	\$28	\$30	\$2	7%
Commencement (b)	\$200	\$200	\$200	\$0	0%
Non-Matriculated Student Transcript Fee	\$10	\$10	\$10	\$0	0%
Reactivation Fee	\$60	\$60	\$60	\$0	0%
ID Card, New Student Fee (Matriculated, Non-credit, Online)	\$75	\$75	\$75	\$0	0%
ID Card, Returning Student Fee (Matriculated, Non-credit, Online)	\$12	\$12	\$12	\$0	0%
ID Card, Replacement	\$25	\$25	\$25	\$0	0%
Replacement ISC (one card)	\$25	\$25	\$25	\$0	0%
Mass Media	\$17	\$17	\$17	\$0	0%
New Student Fee	\$643	\$533	\$533	\$0	0%
Orientation Fee	\$0	\$178	\$178	\$0	0%
Student Renewable Energy Fee	\$7	\$7	\$7	\$0	0%
Replacement Diploma Fees					
University Diploma electronic copy	\$15	\$15	\$15	\$0	0%
University Diploma standard order (6-8 weeks delivery)	\$40	\$40	\$40	\$0	0%
University Diploma rush order (10-14 business days)	\$60	\$60	\$60	\$0	0%
International Fees					
Study Abroad Fee	\$100	\$100	\$100	\$0	0%
International Student Fee	\$320	\$330	\$330	\$0	0%
Global Programs Support Fees					
Education Abroad Engagement Fee (c)	\$20	\$20	\$20	\$0	0%
F-1 CPT/OPT Application Fee		\$0	\$125	\$125	100%
Health Fees					
Student Health Insurance Plan (SHIP) (d)	\$2,178	\$2,553	\$2,772	\$219	9%

Notes:

a Charged to students opting to pay by UMass Boston payment plan

b Mandatory charge for anticipated degree recipients only

c Mandatory unless student has coverage. Proposed rate is negotiated at the system-level based on campus criteria and actuarial exp

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 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
Program Fees					
Contintuing Education					
Matriculated*					
Undergraduate					
Resident (Fall/Spring)	\$591	\$605	\$605	(\$0)	0.0%
Non-resident (Fall/Spring)	\$1,415	\$1,458	\$1,458	\$0	0%
Resident (Summer/Winter)	\$470	\$470	\$470	\$0	0%
Non-resident (Summer/Winter)	\$850	\$850	\$850	\$0	0%
Graduate					
Resident (Fall/Spring)	\$761	\$783	\$783	\$0	0%
Non-resident (Fall/Spring)	\$1,470	\$1,515	\$1,515	\$0	0%
Resident (Summer/Winter)	\$625	\$625	\$625	\$0	0%
Non-resident (Summer/Winter)	\$950	\$950	\$950	\$0	0%
Non-matriculated					
Undergraduate (Fall/Spring)	\$410	\$410	\$410	\$0	0%
Undergraduate (Winter/Summer)	\$350	\$350	\$350	\$0	0%
Graduate	\$575	\$575	\$575	\$0	0%
Continuing Education - Online & Off Campus (except online programs)					
Undergraduate Matriculated	\$410	\$410	\$410	\$0	0%
Undergraduate Non-matriculated (Fall/Spring)	\$410	\$410	\$410	\$0	0%
Undergraduate Non- Matriculated(Winter/Summer)	\$350	\$350	\$350	\$0	0%
Graduate	\$575	\$575	\$575	\$0	0%
Continuing Education - On-line Programs					
Accelerated Nursing Bachelor of Science (online)	NA	\$577	\$577	\$0	0%
Nursing RN to Bachelor of Science (online)	NA	\$370	\$370	\$0	0%
Shorelight American Collegiate (online) per credit		\$850	\$850	\$0	0%
Executive MBA, MSA, MFA Program					
Professional graduate program fee	\$900	\$900	\$900	\$0	0%
Continuing Education - non credit program	\$0 - \$6,600	\$0 - \$6,750	\$0 - \$12,000	N/A	N/A
Continuing Education - professional development	\$0 - \$6,600	\$0 - \$6,750	\$0 - \$12,000	N/A	N/A
Continuing Education - Fees					
Summer Services Fees (Matriculated F2F per Term)	\$245	\$245	\$0	(\$245)	-100%
Summer Services Fees (Matriculated F2F per credit)			\$10		
Summer Services Fees (Non Matriculated F2F, all online per credit, non-refundable)		\$10	\$10	\$0	0%
Continuing Education - Dual Enrollment					
On-campus/UMB staff, per credit (12 student minimum)			\$264	\$264	100%
Off-campus/UMB staff per credit (12 student minimum)			\$214	\$214	100%
Off-campus/Local staff per credit (12 student minimum)			\$61	\$61	100%
Other Fees					
Parking, Per day (Bayside)	\$9	\$9	\$9	\$0	0%
Parking, Per day (Garage and Lot D)	\$15	\$15	\$15	\$0	0%
Parking, Per Evening after 4pm (West Garage Only))		\$10	\$10	\$0	0%
Parking, Monthly pass (Bayside, Faculty/Staff)	\$144	\$112 - \$160	\$112 - \$160	\$0	0%
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)	\$240	\$122 - \$240	\$122 - \$240	\$0	0%
Parking, Monthly pass (Garage and Lot D, Faculty/Staff) reserved space	\$360	\$300	\$300	\$0	0%
Parking, Monthly pass (Garage and Lot D, comm Student)	\$210	\$138	\$138	\$0	0%
Parking, Monthly pass (Garage and Lot D, res Student) reserved space	\$315	\$315	\$315	\$0	0%
Parking, Semester pass (Bayside, Faculty/Staff)	\$576	\$576	\$576	\$0	0%

FY 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
Parking, Semester pass (Bayside, new Students)	\$504	\$504	\$504	\$0	0%
Parking, Semester pass (Bayside, cont Students)	\$410	\$460	\$460	\$0	0%
Parking, Semester pass (Garage and Lot D, Faculty/Staff)	\$960	\$550	\$550	\$0	0%
Parking, Semester pass (Garage and Lot D, comm Student)	\$840	\$550	\$550	\$0	0%
Parking, Semester pass (Garage and Lot D, res Student)	\$1,260	\$1,200	\$1,200	\$0	0%
Parking, 30 park pass Semester, (Bayside; Student/Faculty Only)		\$270	\$270	\$0	0%
Parking, 15 park pass Semester, (Garages and Lot D; Student/Faculty Only)		\$150	\$150	\$0	0%
Parking, 30 park pass Semester, (Garages and Lot D; Student/Faculty Only)		\$360	\$360	\$0	0%
Single (community bath), Academic	\$10,746	\$11,224	\$11,560	\$336	3%
Single (private bath), Academic	\$11,988	\$12,488	\$12,864	\$376	3%
Large single (private bath), Academic	\$12,213	\$12,728	\$13,104	\$376	3%
Double (community bath), Academic	\$9,468	\$9,720	\$10,024	\$304	3%
Large Double Community Bath	\$9,693	\$9,904	\$10,200	\$296	3%
Double (private bath), Academic	\$10,899	\$11,352	\$11,720	\$368	3%
Double (private bath), Large Double Private Bath	\$11,124	\$11,584	\$11,952	\$368	3%
Triple (private bath), Academic	\$9,000	\$9,232	\$9,512	\$280	3%
Quad (private bath), Academic	\$8,703	\$8,896	\$9,152	\$256	3%
Neighborhood A (25 meal block per year)	\$300	\$300	\$312	\$12	4%
Neighborhood B (50 meal block per year)	\$575	\$575	\$598	\$23	4%
Neighborhood C (100 meal block per year)			\$1,100	\$1,100	100%
Points Plan A (75 Dining points +1 Bonus Swipe)		\$75	\$0	(\$75)	-100%
Points Plan A (Harbor Plan - 100 Dining points +1 Bonus Swipe)			\$100	\$100	100%
Points Plan B (125 Dining points +2 Bonus Swipe)		\$125	\$0	(\$125)	-100%
Points Plan B (Beacons Plan - 175 Dining points +2 Bonus Swipe)			\$175	\$175	100%

FY 2021 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
Other Fees (Not Student Related)					
Athletics - Beacon Fitness Ctr Employees & Alumni - Annual	\$216	\$216	\$216	\$0	0%
Athletics - Beacon Fitness Center Community Adult - Annual	\$125	\$125	\$125	\$0	0%
Athletics - Beacon Fitness Center Community Family - Annual	\$160	\$160	\$160	\$0	0%
Athletics - Beacon Fitness Center Community Youth - Annual	\$30	\$30	\$30	\$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 - Clark Center , Dive Well only Lifeguard	\$60	\$60	\$60	\$0	0%
Athletics - Ice Rink Rental - per hour	\$250	\$250	\$250	\$0	0%
Athletics - Swimming Pool Rental - Hourly (including Lifeguard)	\$125	\$125	\$125	\$0	0%
Athletics - Softball Field Rental - Per game	\$275	\$275	\$275	\$0	0%
Athletics - 400-Meter Track, lacrosse/soccer field, per game/match	\$300	\$300	\$300	\$0	0%
Athletics - Facility Staff Member	\$49	\$49	\$49	\$0	0%
Athletics - Additional Life Guard - per hour	\$18	\$18	\$18	\$0	0%
Athletics - Additional Ice Rink Attendant - per hour	\$16	\$16	\$16	\$0	0%
Athletics - Student Employee - per hour	\$14	\$14	\$14	\$0	0%
Athletics - UMB Game Admission - Spectator over 12 yrs.	\$7	\$7	\$7	\$0	0%
Athletics - Monan Park Rentals - Main field per game	\$750	\$750	\$750	\$0	0%
Athletics - Monan Park Rentals - JV field per game	\$250	\$250	\$250	\$0	0%
Athletics - Monan Park Rentals - All day tournaments, 2-3 days	\$2,500 - \$5,000	\$2,500 - \$5,000	\$2,500 - \$5,000	\$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%
ILT - ALERTA Summer Program Fee plus optional lunch fee (per student)	\$35 - \$115	\$35 - \$115	\$0	\$0	0%
ILT - TAG Summer Program Fee for EXCEL (per student)	\$35 - \$115	\$35 - \$115	\$0	\$0	0%
ILT - TAG Summer Program Fee for SPELL (per student)	\$35 - \$115	\$35 - \$115	\$0	\$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 - 2 Day Reserve Late Fee	\$30 - \$150	\$30 - \$150	\$0	\$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	\$1,500	\$1,500	\$0	0%
Library - Lost Loaner Laptop charger/adaptor replacement fee	\$150	\$150	\$150	\$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%
Nantucket Field Station - Gouin Village Apartments (non UMB users - per night, per guest)	\$40	\$40	\$60	\$20	50%
Nantucket Field Station - Gouin Village Apartments (UMB users - per night, per guest)	\$25	\$25	\$30	\$5	20%
Nantucket Field Station - Gouin Village Apartments (Non Profit - per night)	\$30	\$30	\$45	\$15	50%
Nantucket Field Station - Gouin Village Apartments (non UMB users - full condo)	\$960	\$960	\$0	(\$960)	-100%

FY 2021 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY20-FY21	% Change FY20-FY21
Other Fees (Not Student Related)					
Nantucket Field Station - Gouin Village Apartments (UMB users - full condo)	\$600	\$600	\$0	(\$600)	-100%
Nantucket Field Station - Gouin Village Apartments (non UMB users - per week, per guest)	\$240	\$240	\$0	(\$240)	-100%
Nantucket Field Station - Gouin Village Apartments (UMB users - per week, per guest)	\$150	\$150	\$0	(\$150)	-100%
Nantucket Field Station - Bunkhouse (UMB users - per night)	\$25	\$25	\$30	\$5	20%
Nantucket Field Station - Bunkhouse (non UMB users - per night)	\$40	\$40	\$60	\$20	50%
Nantucket Field Station - Bunkhouse (Non Profit - per night)	\$30	\$30	\$45	\$15	50%
Nantucket Field Station - Bunkhouse (UMB users - both bunk rooms per night)	\$300	\$300	\$350	\$50	17%
Nantucket Field Station - Bunkhouse (non UMB users - both bunk rooms per night)	\$600	\$600	\$700	\$100	17%
Nantucket Field Station - Bunkhouse (non UMB users - per week)	\$180	\$180	\$0	(\$180)	-100%
Nantucket Field Station - Bunkhouse (UMB users - per week)	\$90	\$90	\$0	(\$90)	-100%
Nantucket Field Station - Bunkhouse (non UMB users - per week both bunk rooms)	\$2,520	\$2,520	\$0	(\$2,520)	-100%
Nantucket Field Station - Bunkhouse (UMB users - per week both bunk rooms)	\$1,260	\$1,260	\$0	(\$1,260)	-100%
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	\$20	\$40	\$20	100%
ODI - Commonwealth Compact Talent Network Access Tier 1	\$600 - \$10,000	\$600 - \$10,000	\$0	(\$600) - (\$100)	-100%
ODI - Commonwealth Compact Talent Network Access Tier 2	\$300 - \$5,000	\$300 - \$5,000	\$0	(\$300) - (\$500)	-100%
ODI - Commonwealth Compact Talent Network Access Sole Practitioners	\$100	\$100	\$0	(\$100)	-100%
Campus Center Vendor Fee (charged to vendor)	\$133 - \$200	\$133 - \$200	\$133 - \$200	\$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%
Event Services - All Room Rental Charges	\$150 - \$4,975	\$155 - \$5,124	\$155 - \$5,124	\$0	0%

UNIVERSITY OF MASSACHUSETTS, DARTMOUTH

STUDENT TUITION & FEE SCHEDULES

FY 2021 TUITION & MANDATORY FEES

FY 2021 NON-MANDATORY FEES

FY 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2021 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

FY 2021 TUITION & MANDATORY FEES
SUMMARY TABLE

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY2020-21	% Change FY2020-21
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (resident)	\$13,496	\$13,833	\$13,833	\$0	0.0%
Undergraduate (non-resident)	\$28,716	\$29,578	\$29,578	\$0	0.0%
Undergraduate (regional & proximity)	\$18,428	\$18,981	\$18,981	\$0	0.0%
MANDATORY FEES					
Student Fee	\$175	\$175	\$175	\$0	0.0%
Technology Fee	\$250	\$350	\$400	\$50	14.3%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (resident)	\$13,921	\$14,358	\$14,408	\$50	0.3%
Undergraduate (non-resident)	\$29,141	\$30,103	\$30,153	\$50	0.2%
Undergraduate (regional & proximity)	\$18,853	\$19,506	\$19,556	\$50	0.3%
RESIDENTS ONLY					
Standard Room	\$8,600	\$9,030	\$9,482	\$452	5.0%
Standard Board	\$4,699	\$4,840	\$5,233	\$393	8.1%
Residential Telecommunications	\$0			\$0	0.0%
Subtotal	\$13,299	\$13,870	\$14,715	\$845	6.1%
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (resident)	\$27,220	\$28,228	\$29,123	\$895	3.2%
Undergraduate (non-resident)	\$42,440	\$43,973	\$44,867	\$895	2.0%
Undergraduate (regional & proximity)	\$32,152	\$33,376	\$34,270	\$895	2.7%
<u>GRADUATE</u>					
TUITION					
Graduate (resident)	\$15,912	\$16,390	\$16,390	\$0	0.0%
Graduate (non-resident)	\$28,716	\$29,578	\$29,578	\$0	0.0%
Graduate (regional & proximity)	\$20,277	\$20,885	\$20,885	\$0	0.0%
Graduate Law School (resident)	\$27,826	\$28,661	\$28,661	\$0	0.0%
Graduate Law School (non-resident)	\$36,475	\$37,569	\$37,569	\$0	0.0%
Graduate Law School (regional & proximity)	\$29,696	\$30,587	\$30,587	\$0	0.0%
MANDATORY FEES					
Student Fee	\$175	\$175	\$175	\$0	0.0%
Technology Fee	\$250	\$350	\$400	\$50	14.3%
TOTAL MANDATORY FEES & TUITION					
Graduate (resident)	\$16,337	\$16,915	\$16,965	\$50	0.3%
Graduate (non-resident)	\$29,141	\$30,103	\$30,153	\$50	0.2%
Graduate (regional & proximity)	\$20,702	\$21,410	\$21,460	\$50	0.2%
Graduate Law School (resident)	\$28,251	\$29,186	\$29,236	\$50	0.2%
Graduate Law School (non-resident)	\$36,900	\$38,094	\$38,144	\$50	0.1%
Graduate Law School (regional & proximity)	\$30,121	\$31,112	\$31,162	\$50	0.2%
RESIDENTS ONLY					
Standard Room	\$8,600	\$9,030	\$9,482	\$452	5.0%
Standard Board	\$4,699	\$4,840	\$5,210	\$370	7.6%
Subtotal	\$13,299	\$13,870	\$14,692	\$822	5.9%
TOTAL TUITION AND ROOM & BOARD					
Graduate (resident)	\$29,636	\$30,785	\$31,656	\$872	2.8%
Graduate (non-resident)	\$42,440	\$43,973	\$44,844	\$872	2.0%
Graduate (regional & proximity)	\$34,001	\$35,280	\$36,151	\$872	2.5%

FY 2021 NON-MANDATORY FEES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY2020-21	% Change FY2020-21
Administrative Fees					
Orientation (Freshmen)	\$270	\$270	\$270	\$0	0.0%
Orientation International students	\$260	\$260	\$260	\$0	0.0%
Orientation Transfer Students	\$150	\$150	\$150	\$0	0.0%
Graduation Fee (final semester only)	\$185	\$185	\$185	\$0	0.0%
Nursing Exam Prep Fee	\$390	\$401	\$445	\$44	11.0%
Nursing Exam Security Software Fee (BS Students Sophomore-Senior)	\$100	\$103	\$103	\$0	0.0%
Readmit Fee (students withdrawals and reapply)	\$60	\$60	\$60	\$0	0.0%
Continuation of Thesis Fee	\$250	\$250	\$250	\$0	0.0%
Withdrawn on Exchange Fee foreign exchange programs	\$250	\$250	\$250	\$0	0.0%
Withdrawn on Exchange Fee Formal exchange programs	\$600	\$600	\$600	\$0	0.0%
Withdrawn on Exchange Fee-Co-op Exchange programs	\$105-\$305	\$105-\$305	\$105-\$306	\$0	0.0%
Student Teaching Practicum	\$773	\$773-\$1,087			
Health Fees					
Health Insurance		\$2,512	\$2,737	\$225	9.0%
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%
Business Major Fee	\$468	\$482	\$496	\$14	2.9%
Nursing Major Fee	\$885	\$973	\$1,066	\$93	9.6%
Nursing Major Fee-MLS	\$0	\$928	\$1,021	\$93	0.0%
Engineering Major Fee	\$1,350	\$1,350	\$1,350	\$0	0.0%
SMAST Major Fee	\$794	\$818	\$843	\$25	3.1%
SEPPCE Major Fee (formerly paying Arts & Sciences Fee)	\$426	\$426	\$426	\$0	0.0%
Technology Fee Law School	\$0	\$0	\$0		
Law School Summer Fee (per credit)	\$1,135	\$1,169	\$1,198	\$29	2.5%
Honors College Fee	\$0	\$0	\$300	\$300	
Other Fees (Not Student Related)					
Applied Music (private music lessons)	\$733	\$755	\$777	\$22	2.9%
Alumni Fee**(final semester only)	\$20	\$20	\$20	\$0	0.0%

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

FY 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY2020-21	% Change FY2020-21
AUXILIARY CHARGES					
Auxiliary Fees					
Room and Board:					
Single Room	\$9,623	\$10,104	\$10,609	\$505	5.0%
Double Room	\$8,600	\$9,030	\$9,482	\$452	5.0%
Design Triple/Quad Room, Non A/C Trad	\$8,399	\$8,819	\$9,260	\$441	5.0%
Triple Room,w A/C: OG	\$8,588	\$9,017	\$9,468	\$451	5.0%
Double Room,A/C:OG/PD	\$9,155	\$9,613	\$10,094	\$481	5.0%
Cedar Dell "A" Room	\$9,502	\$9,977	\$10,476	\$499	5.0%
Cedar Dell	\$9,668	\$10,151	\$10,659	\$508	5.0%
New Apartments-4 Bedroom	\$10,099	\$10,604	\$11,134	\$530	5.0%
New Apartments-2 Bedroom	\$11,005	\$11,555	\$12,133	\$578	5.0%
Single,2-bed/1 bath a/c:Woodlands	\$10,551	\$11,079	\$11,633	\$554	5.0%
Platinum Plan	\$4,887	\$5,034	\$0	(\$5,034)	-100.0%
Gold Plan	\$4,699	\$4,840	\$0	(\$4,840)	-100.0%
Silver Plan	\$4,699	\$4,840	\$0	(\$4,840)	-100.0%
Bronze Plan	\$2,942	\$3,089	\$0	(\$3,089)	-100.0%
Unlimited Dining Plan **NEW**	\$0	\$0	\$5,233	\$5,233	#DIV/0!
Unlimited Plus Dining Plan **NEW**	\$0	\$0	\$5,583	\$5,583	#DIV/0!
Apartment Dining Plan **NEW**	\$0	\$0	\$4,210	\$4,210	#DIV/0!
Apartment Plus Dining Plan **NEW**	\$0	\$0	\$4,710	\$4,710	#DIV/0!
Apartment Max Dining Plan **NEW**	\$0	\$0	\$5,210	\$5,210	#DIV/0!
Commuter Dining Plan **NEW**	\$0	\$0	\$600	\$600	#DIV/0!
Commuter Plus Dining Plan **NEW**	\$0	\$0	\$1,000	\$1,000	#DIV/0!
Commuter Max Dining Plan **NEW**	\$0	\$0	\$1,500	\$1,500	#DIV/0!
Parking:					
Reserved	\$550	\$550	\$550	\$0	0.0%
Summer Session	\$25	\$25	\$25	\$0	0.0%
Part-Time Students	\$50	\$50	\$55	\$5	10.0%
Part-Time Faculty & Staff	\$93	\$93	\$95	\$3	3.0%
Full-Time Students	\$165	\$165	\$185	\$20	12.1%
Resident Students	\$215	\$215	\$230	\$15	7.0%
Full-Time Faculty, Staff	\$185	\$185	\$185	\$0	0.0%
Program Fees (Continuing Education)					
*Division of Continuing Education					
Undergraduate Tuition (per credit)	\$332	\$342	\$352	\$10	3.0%
Undergraduate Tuition Accelerated BS in Nursing (per credit)	\$631	\$663	\$683	\$20	3.0%
Undergraduate Tuition On-Line (per credit)	\$332	\$342	\$352	\$10	3.0%
Graduate Tuition EDU & MAT program (per credit)	\$390	\$402	\$414	\$12	3.0%
Graduate Tuition ABA Program (per credit)	\$466	\$480	\$494	\$14	3.0%
Graduate MBA &MPP Program (per credit)	\$553	\$570	\$587	\$17	3.0%
Graduate MS in Computer Science Program	\$553	\$570	\$587	\$17	3.0%

FY 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY2020-21	% Change FY2020-21
Graduate MS in Nursing (per credit)	\$553	\$570	\$587	\$17	3.0%
On-line Technology Fee	\$150	\$150	\$150	\$0	0.0%
Application Fee	\$60	\$60	\$60	\$0	0.0%
Application Fee-ESL/ALCI	\$60	\$60	\$60	\$0	0.0%
ALCI/ESL Program Fee (per semester)	\$6,128	\$6,312		(\$6,312)	-100.0%
Non-Credit Tuition	\$15-\$2000	\$15-\$2000	15-2000		
Campus Center (per credit)	\$5	\$5	\$55	\$50	1000.0%
Library Fee (per credit)	\$6	\$6	\$6	\$0	0.0%
Registration (flat fee)	\$30	\$30	\$30	\$0	0.0%
Prior Learning Workshops	\$2,324	\$2,394	\$2,324	(\$70)	-2.9%
College Fees	\$426 - \$1350	\$426 - \$1350	\$1,350	\$0	0.0%
Corporate Contract Fee	\$137-\$515	\$137-\$515	\$515	\$0	0.0%
Student Teacher Practicum Fee (per 3 credits)	\$775	\$800	\$800	\$0	0.0%
New - Graduate Tuition: DNP in Nursing (per cr.) (OCE supported)	\$0	\$570	\$0	(\$570)	-100.0%

FY 2021 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY2020-21	% Change FY2020-21
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 2021 TUITION & MANDATORY FEES

FY 2021 NON-MANDATORY FEES

FY 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2021 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

FY 2021 TUITION & MANDATORY FEES
SUMMARY TABLE

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	FY20-21 \$ change	FY20-21 % change
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (in state)	\$14,710	\$15,078	\$15,078	\$0	0.0%
Undergraduate (out-of-state)	\$32,357	\$33,004	\$33,004	\$0	0.0%
Undergraduate (New England Regional)	\$25,971	\$26,618	\$26,618	\$0	0.0%
MANDATORY FEES					
Campus Technology Fee (Undergraduate and Graduate)	\$250	\$350	\$400	\$50	14.3%
Student Activity Fee (Undergraduate& Graduate)	\$220	\$220	\$220	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (in state)	\$15,180	\$15,648	\$15,698	\$50	0.3%
Undergraduate (out-of-state)	\$32,827	\$33,574	\$33,624	\$50	0.1%
Undergraduate (New England Regional)	\$26,441	\$27,188	\$27,238	\$50	0.2%
RESIDENTS ONLY					
Average Residence Hall Rent	\$8,400	\$8,610	\$8,820	\$210	2.4%
Average Board	\$4,348	\$4,450	\$4,560	\$110	2.5%
SUBTOTAL	\$12,748	\$13,060	\$13,380	\$320	2.5%
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (in state)	\$27,928	\$28,708	\$29,078	\$370	1.3%
Undergraduate (out-of-state)	\$45,575	\$46,634	\$47,004	\$370	0.8%
Undergraduate (New England Regional)	\$39,189	\$40,248	\$40,618	\$370	0.9%
<u>GRADUATE</u>					
TUITION					
Graduate (in state)*	\$14,590	\$14,590	\$14,590	\$0	0.0%
Graduate (out-of-state)*	\$26,370	\$26,370	\$26,370	\$0	0.0%
Graduate (New England Regional)*	\$22,401	\$22,401	\$22,401	\$0	0.0%
MANDATORY FEES					
Campus Technology Fee (Undergraduate and Graduate)	\$250	\$350	\$400	\$50	14.3%
Student Activity Fee (Undergraduate& Graduate)	\$220	\$220	\$220	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Graduate (in state)	\$15,060	\$15,160	\$15,210	\$50	0.3%
Graduate (out-of-state)	\$26,840	\$26,940	\$26,990	\$50	0.2%
Graduate (New England Regional)	\$22,871	\$22,971	\$23,021	\$50	0.2%
RESIDENTS ONLY					
Average Residence Hall Rent	\$8,400	\$8,610	\$8,820	\$210	2.4%
Average Board	\$4,348	\$4,450	\$4,560	\$110	2.5%
SUBTOTAL	\$12,748	\$13,060	\$13,380	\$320	2.5%
TOTAL TUITION AND ROOM & BOARD					
Graduate (in state)	\$27,808	\$28,220	\$28,590	\$370	1.3%
Graduate (out-of-state)	\$39,588	\$40,000	\$40,370	\$370	0.9%
Graduate (New England Regional)	\$35,619	\$36,031	\$36,401	\$370	1.0%

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

FY 2021 NON-MANDATORY FEES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY2020-21	% Change FY2020-21
<u>Administrative Fees</u>					
Mass PIRG (\$11/semester)	\$22	\$22	\$22	\$0	0.0%
<u>International Fees</u>					
International Student Fee	\$1,000	\$1,000	\$1,000	\$0	0.0%
Hessen Exchange Program Fee	\$3,500	\$3,500	\$3,500	\$0	0.0%
Study Abroad Fee	\$300	\$300	\$300	\$0	0.0%
Faculty Led Study Abroad Fee**		Up to \$10,000	Up to \$15,000	\$5,000	50.0%
<u>Health Fees</u>					
Student Health Insurance*	\$1,614	\$1,901	\$1,901	\$0	0.0%
<u>Program Fees</u>					
Nursing Testing Fees***	\$47 to \$80	\$47 to \$80	Up to \$308	\$228	285.0%
Advanced Health Assessment Fee (Graduate) ****	\$450	\$450	\$450	\$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	\$745	\$745	\$850	\$105	14.1%
Music Fee	\$670	\$700	\$700	\$0	0.0%
Art Fee	\$500	\$700	\$700	\$0	0.0%
College of Education Fee (Undergrad & Grad)		\$300	\$300	\$0	0.0%
Honors College Fee		\$100	\$100	\$0	0.0%
Manning School of Business Fee	\$700	\$700	\$700	\$0	0.0%
Zuckerberg College of Health Sciences Fee	\$700	\$700	\$700	\$0	0.0%
Solomont School of Nursing Fee	\$0	\$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 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY2020-21	% Change FY2020-21
AUXILIARY CHARGES					
Auxiliary Fees					
<u>Residence Halls Rooms:****</u>					
<u>Rate A</u>					
Concordia Double	\$8,400	\$8,610	\$8,820	\$210	2.4%
Fox Triple /Quad	\$8,400	\$8,610	\$8,820	\$210	2.4%
Leitch & Bourgeois Quad	\$8,400	\$8,610	\$8,820	\$210	2.4%
<u>Rate B</u>					
Fox Double	\$8,500	\$8,750	\$8,970	\$220	2.5%
<u>Rate C</u>					
Fox Enhanced Double	\$8,650	\$8,870	\$9,100	\$230	2.6%
Leitch & Bourgeois Double	\$8,650	\$8,870	\$9,100	\$230	2.6%
<u>Rate D</u>					
ICC Double (& Quad)	\$9,250	\$9,500	\$9,740	\$240	2.5%
<u>Rate E</u>					
River Hawk Village Traditional	\$9,950	\$10,200	\$10,460	\$260	2.5%
Sheehy Suite	\$9,950	\$10,200	\$10,460	\$260	2.5%
<u>Rate F</u>					
Donahue Suites	\$10,350	\$10,600	\$10,870	\$270	2.5%
Concordia Singles	\$9,950	\$10,600	\$10,870	\$270	2.5%
Fox Special Single	\$9,950	\$10,600	\$10,870	\$270	2.5%
<u>Rate G</u>					
Riverview Suites East	\$10,868	\$11,150	\$11,430	\$280	2.5%
<u>Rate H</u>					
University Suites	\$10,950	\$11,250	\$11,540	\$290	2.6%
<u>Rate I</u>					
Merrimack Double	\$11,123	\$11,450	\$11,740	\$290	2.5%
Riverview Suites West	\$11,123	\$11,450	\$11,740	\$290	2.5%
<u>Rate J</u>					
River Hawk Village Standard	\$11,333	\$11,650	\$11,950	\$300	2.6%
1301 Middlesex	\$11,333	\$11,650	\$11,950	\$300	2.6%
Merrimack Single	\$11,333	\$11,650	\$11,950	\$300	2.6%
<u>Rate K</u>					
River Hawk Village Delux	\$11,600	\$11,900	\$12,200	\$300	2.5%
River Hawk Village Delux Townhouse	\$11,600	\$11,900	\$12,200	\$300	2.5%
Meal Plan Options:					
Platinum Unlimited + 350 points and 8 guest meals	\$4,988	\$5,120	\$5,250	\$130	2.5%
Gold Unlimited + 200 points and 8 guest meals	\$4,812	\$4,940	\$5,070	\$130	2.6%
Silver 125 Block Meals and \$450 points and 5 guest meals	\$4,348	\$4,450	\$4,560	\$110	2.5%
Program Fees (Continuing Education)					
Continuing Studies/Corporate Education Tuition/Fees: *					
Undergrad Tuition per Credit Hour face to face**	\$340	\$340	Up to \$360	\$20	5.9%
Graduate Tuition per Credit Hour face to face	\$575	\$575	Up to \$630	\$55	9.6%
Undergrad Tuition (High Tech/Corporate)	\$450	Up to \$450	Up to \$450	\$0	0.0%
Undergrad Tuition (Online) per credit hour	\$380	\$380	Up to \$400	\$20	5.3%
MSB Undergraduate Online Courses and Audit	\$385	\$385	Up to \$425	\$40	10.4%
Graduate Tuition (Online) per credit hour	\$575	\$575	Up to \$630	\$55	9.6%

FY 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY2020-21	% Change FY2020-21
Graduate Tuition (MBA, Online & On-campus) distance per credit hour	\$655	\$655	Up to \$725	\$70	10.7%
Graduate Tuition (Education) per credit hour	\$470	\$470	Up to \$500	\$30	6.4%
MSIT and Masters in Engineering Management	\$590	\$590	Up to \$625	\$35	5.9%
Program Pricing Pilot***	NA	Up to \$750	Up to \$750	\$0	0.0%
Application Fee	\$60	Up to \$75	Up to \$75	\$0	0.0%
Registration Fee	\$30	\$30	\$30	\$0	0.0%
CAS Engineering Application Fee+		\$75	\$75	\$0	0.0%
Late Registration Fee	\$50	\$50	\$50	\$0	0.0%
Returned Check Fee	\$30	\$30	\$30	\$0	0.0%
Parking Fees:					
a Faculty/Staff (per contracts)	\$375	\$400	\$400	\$0	0.0%
b Adjunct Faculty	\$110	\$115	\$125	\$10	8.7%
c Part-time Staff	\$175	\$175	\$175	\$0	0.0%
d Reserved/Designated Parking	\$1,300	\$1,400	\$1,500	\$100	7.1%
e Resident Students	Up to \$450	Up to \$450	Up to \$450	\$0	0.0%
f Commuter Students	Up to \$450	Up to \$450	Up to \$450	\$0	0.0%
g RA/TA's	NA	NA	Up to \$225	\$0	0.0%

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

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

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

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

**** Waived for Resident Advisors.

Parking fee notes:

- a Faculty/Staff; Effective 12/7/18 \$375, Effective 9/1/19 \$400
 - b Adjunct Faculty; \$55 per semester effective 2/15/19. Will increase to \$60 per semester in Spring 2020 and \$65 per semester in 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, \$25; snow emergency parking violation, \$25; parking without decal, \$50; Expired Meter \$25;
Handicapped parking violations, \$100.

FY 2021 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2019 Actual	FY2020 Proposed	FY2021 Proposed	\$ Change FY2020-21	% Change FY2020-21
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	\$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	\$0	0.0%
Lacrosse:					
Adult Ticket			\$5	\$0	0.0%
Recreation Center Charges:					
Membership/12 Months 6:30 - 1:00 (tentative)	\$35-\$500	\$35-\$500	\$35-\$500	\$0	0.0%
Membership Card Replacement	\$20	\$20	\$20	\$0	0.0%
Special Programs and Classes	\$5-\$2500	\$5-\$2500	\$5-\$2500	\$0	0.0%

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL

STUDENT TUITION & FEE SCHEDULES

FY 2021 TUITION & MANDATORY FEES

FY 2021 NON-MANDATORY FEES

FY 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2021 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

**FY 2021 TUITION & MANDATORY FEES
SUMMARY TABLE**

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY 2020-21	% Change FY 2020-21
TUITION					
Medical School - (in-state)	\$35,500	\$36,030	\$36,570	\$540	1.5%
Medical School (out-of-state)	\$61,050	\$61,960	\$62,889	\$929	1.5%
Graduate School of Nursing: *					
In state students	\$13,870	\$14,064	\$14,275	\$211	1.5%
NE Regional	\$17,200	\$17,444	\$17,706	\$262	1.5%
Out of state	\$18,960	\$19,230	\$19,518	\$288	1.5%
GSN Graduate Entry Program (year 1):					
In state students	\$43,220	\$43,854	\$44,512	\$658	1.5%
NE Regional	\$49,400	\$50,128	\$50,880	\$752	1.5%
Out of state	\$55,580	\$56,400	\$57,246	\$846	1.5%
Grad. School of Biomedical Science (in-state)	\$14,300	\$14,506	\$14,724	\$218	1.5%
Grad. School of Biomedical Science(out-of-state)	\$31,400	\$31,862	\$32,340	\$478	1.5%
MANDATORY FEES					
Equipment Fee (Medical & Nursing Schools)	\$325	\$334	\$334	\$0	0.0%
Assessment Fee (Medical School)	\$600	\$600	\$375	(\$225)	-37.5%
Certification Fee (Medical School)	\$120	\$120	\$120	\$0	0.0%
Simulation Fee (CELS) (Medical School)	\$200	\$206	\$206	\$0	0.0%
Health / Counseling Fee (All Schools)	\$836	\$861	\$861	\$0	0.0%
Student Services Fee (All Schools)	\$195	\$195	\$195	\$0	0.0%
SUBTOTAL OTHER MANDATORY FEES					
Medical School	\$2,276	\$2,316	\$2,091	(\$225)	-9.7%
Graduate School of Nursing	\$1,356	\$1,390	\$1,390	\$0	0.0%
Graduate School of Biomedical Science	\$1,031	\$1,056	\$1,056	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Medical School - (in-state)	\$37,776	\$38,346	\$38,661	\$315	0.8%
Medical School (out-of-state)	\$63,326	\$64,276	\$64,980	\$704	1.1%
Graduate School of Nursing (in-state)	\$15,226	\$15,454	\$15,665	\$211	1.4%
Graduate School of Nursing (NE regional)	\$18,556	\$18,834	\$19,096	\$262	1.4%
Graduate School of Nursing (out-of-state)	\$20,316	\$20,620	\$20,908	\$288	1.4%
GSN Graduate Entry Program (in-state)	\$44,576	\$45,244	\$45,902	\$658	1.5%
GSN Graduate Entry Program (NE regional)	\$50,756	\$51,518	\$52,270	\$752	1.5%
GSN Graduate Entry Program (out-of-state)	\$56,936	\$57,790	\$58,636	\$846	1.5%
Grad. School of Biomedical Science (in-state)	\$15,331	\$15,562	\$15,780	\$218	1.4%
Grad. School of Biomedical Science(out-of-state)	\$32,431	\$32,918	\$33,396	\$478	1.5%

* Based on 18 credits

FY 2021 NON-MANDATORY FEES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY 2020-21	% Change FY 2020-21
Ph.D./MD (in-state) *****	35,500	36,030	36,570	\$540	1.5%
Ph.D./MD Years 1-2 (out-of-state) *****	61,050	61,960	62,889	\$929	1.5%
Ph.D./MD Years 3+ (out-of-state) *****	61,050	61,960	62,889	\$929	1.5%
Administrative Fees:					
Commencement Fee	\$252	\$252	\$255	\$3	1.2%
Extension Fee - Medical Students (in-state)***	\$23,680	\$24,034	\$7,000	(\$17,034)	-70.9%
Extension Fee - Medical Students (out-of-state)***	\$40,730	\$41,340	\$7,000	(\$34,340)	-83.1%
Diagnostic Instruments - Medical Students	\$800	\$800	\$812	\$12	1.5%
FSSC Fee (Nursing School acute subspecialties)	\$350	\$350	\$355	\$5	1.4%
Typhon Software (Education Tracking Software - Nursing School)	\$125	\$128	\$129	\$1	0.8%
Graduate Entry Program ATI Fee (On-line modules for GEP Nursing Students)	\$1,200	\$1,236	\$1,255	\$19	1.5%
Nursing Leadership Fee (Nursing School)	\$140	\$140	\$142	\$2	1.4%
Program Fees:					
Doctoral Continuation Fee - Graduate School of Nursing **	\$2,250	\$2,318	\$2,353	\$35	1.5%
Elective Fee - Medical School	\$100	\$103	\$104	\$1	1.0%
Elective Fee - International - Medical School	\$1,000	\$1,000	\$1,015	\$15	1.5%
Continuing Course Fee - Graduate School of Nursing	\$100	\$100	\$101	\$1	1.0%
Program Fee - PhD/MD and Grad School of Biomed. Sci. **	\$100	\$100	\$101	\$1	1.0%
On-line Technology Fee - Graduate School of Nursing	\$25	\$25	\$25	\$0	0.0%
Health Sciences Preparatory Program Course Fee	\$110	\$110	\$110	\$0	0.0%
Pathway to Graduate Study Program Course Fee	\$110	\$110	\$110	\$0	0.0%
Lab Fees:					
Acute Care Lab Fee (Nursing School)	\$450	\$450	\$456	\$6	1.3%
Advanced Health Assessment (Nursing School)	\$1,000	\$1,000	\$1,015	\$15	1.5%
Clinical Lab Fee (Nursing School clinical year only)	\$2,000	\$2,000	\$2,030	\$30	1.5%
Health Assessment Lab Fee (Nursing School)	\$495	\$495	\$502	\$7	1.4%
Standardized Patient Lab Fee (Nursing School)	\$175	\$175	\$177	\$2	1.1%
Health Fees:					
Disability Insurance*	\$72	\$72	\$72	\$0	0.0%
Supplemental Health Insurance ****	\$4,357	\$4,050	\$4,175	\$125	3.1%

* 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 2021 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY 2020-21	% Change FY 2020-21
Grad School of Nursing On-line (per unit)	\$775	\$781	\$793	\$12	1.5%

FY 2021 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2019 Actual	FY2020 Actual	FY2021 Proposed	\$ Change FY 2020-21	% Change FY 2020-21
Administrative Fees:					
Application Fee - Medical School	\$100	\$100	\$100	\$0	0.0%
Elective Application Fee - International - Medical School	\$200	\$200	\$200	\$0	0.0%
Application Fee - Grad. Sch. of Nursing	\$100	\$100	\$100	\$0	0.0%
Application Fee - Grad. Sch. of Biomed. Sci.	\$80	\$80	\$80	\$0	0.0%
GSN Registration Fee (non-matrices only)	\$30	\$30	\$30	\$0	0.0%
Late Registration / Late Payment	\$50	\$50	\$50	\$0	0.0%

Appendix C: Annual Financial Report

University
of Massachusetts

ANNUAL FINANCIAL REPORT

2020



University of Massachusetts

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



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University Administration

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Letter from the President

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Report of Independent Auditors

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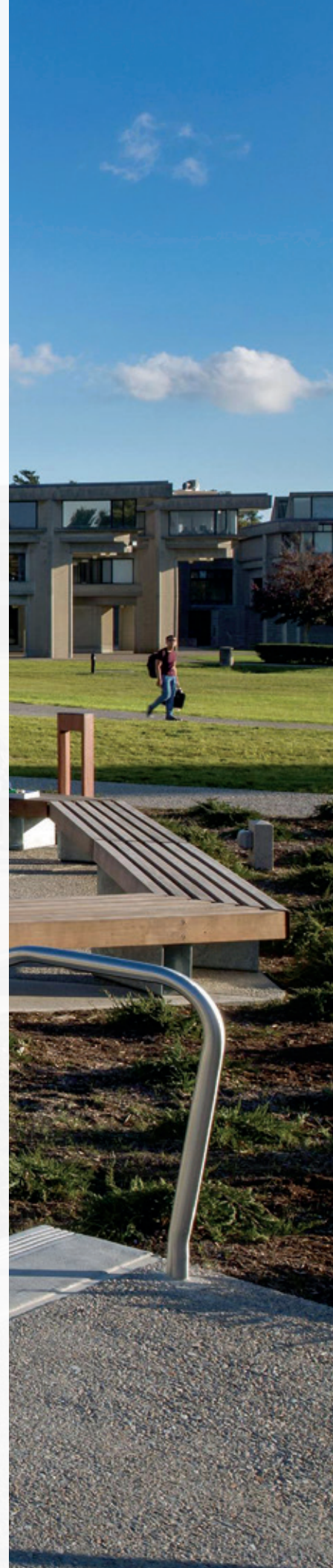
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UNIVERSITY ADMINISTRATION

As of December 2020

BOARD OF TRUSTEES

Robert J. Manning (Chairman)

Swampscott, MA

R. Norman Peters, JD (Vice Chair)

Paxton, MA

Mary L. Burns

Lowell, MA

Ryan P. Callahan

(UMass Lowell Student Trustee,
Non-voting)
Chelmsford, MA

Peter Cruz-Gordillo

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

Dakeyla N. Devaughn-Johnson

(UMass Dartmouth Student Trustee,
Non-voting)
Stoughton, MA

Robert Epstein

Boston, MA

Stephen R. Karam

Fall River, MA

Richard M. Kelleher

Duxbury, MA

Robert Lewis, Jr.

Boston, MA

Michael V. O'Brien

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Dear Friends,

Enclosed, please find our annual financial report for fiscal year 2020.

This has been a year unlike any other in our lifetimes as our nation faces the worst pandemic in a century, reckons with historic and ongoing struggles against racial justice, and grapples a severely distressed economy. Despite this, the University of Massachusetts (UMass) has been resilient and innovative in advancing the mission of education, research and service to the Commonwealth.

UMass was not immune to the impact of the pandemic as our 24,000 faculty and staff members and 75,000 students were forced to shift to remote learning and working virtually overnight in March. They responded by rapidly preparing themselves to teach, learn and work, resulting in the graduation of nearly 18,000 students. We leveraged our research expertise and our unparalleled commitment to civic engagement in assisting the Commonwealth and our communities in managing the public health response to the pandemic.

Our financial management continues to receive independent validation by the three major independent ratings agencies, with ratings of AA, Aa2, and AA- by Fitch, Moody's and S&P Global, respectively. When reaffirming the University's bond rating in October 2020, Moody's cited, "excellent strategic positioning that incorporates strengthened fiscal oversight" and stated that our strong state support, significant research activity and growing net tuition revenue "will provide UMass with sufficient runway to manage through near-term operating volatility associated with the coronavirus pandemic."

UMass continued to stand out for its excellence and impact.

- UMass was once again ranked as the No. 1 public university in *New England by Times Higher Education*.
- All four undergraduate campuses were again ranked as top-tier National Universities by *U.S. News & World Report*.
- Our research enterprise grew to record-breaking heights, with \$684 million in research activity in our latest research report.
- Our economic contribution to Massachusetts reached \$7.5 billion, including serving as the state's third largest employer and creating 30,000 in private sector jobs.

In FY2020, we once again provided a record-breaking amount of institutional financial aid to students, with \$358 million in university funds dedicated to ensuring that our most deserving students are supported throughout their education. In total, UMass students received \$968 million in total financial aid this past year.

Our collective prudent stewardship, the guidance of our trustees, the outstanding leadership of our chancellors, and the unwavering dedication of our faculty and staff to serving students, give me confidence that UMass will emerge from this difficult time as a stronger institution that will lead the post-pandemic economic recovery of Massachusetts.

Martin T. Meehan
President



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Independent Auditors' Report

Board of Trustees of the
University of Massachusetts:

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities and aggregate discretely presented component units of the University of Massachusetts (the University), an enterprise fund of the Commonwealth of Massachusetts, as of and for the years ended June 30, 2020 and 2019, and the related notes to the financial statements, which collectively comprise the University's basic financial statements for the years then ended as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditors' Responsibility

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

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the aggregate discretely presented component units of the University of Massachusetts, as of June 30, 2020 and 2019, and the respective changes in financial position

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and, where applicable, cash flows thereof for the years then ended in accordance with U.S. generally accepted accounting principles.

Emphasis of Matter

As discussed in Note 1, the financial statements of the University are intended to present the financial position, the changes in financial position and, where applicable, cash flows of only that portion of the business-type activities and the aggregate remaining fund information of the Commonwealth of Massachusetts that is attributable to the transactions of the University. They do not purport to, and do not, present fairly the financial position of the Commonwealth of Massachusetts as of June 30, 2020 and 2019, the changes in its financial position, or where applicable, its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles. Our opinion is not modified with respect to this matter.

Required Supplementary Information

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

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 10, 2020 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 10, 2020

Management's Discussion and Analysis (unaudited)

June 30, 2020

Introduction

This Management's Discussion and Analysis 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, 2020 and 2019, and should be read in conjunction with the accompanying financial statements and notes. The financial statements, notes and this discussion are the responsibility of management.

The University of Massachusetts was established in 1863 as the Massachusetts Agricultural College, located in Amherst. Since then it has grown into a five-campus system that is nationally and internationally known for the quality of its academic programs and the scope and excellence of its faculty research. From Nobel Prize-winning gene-silencing research to research in such areas 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 universities in the world and as one of the most innovative.

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 2021 *U.S. News & World Report Best Colleges* rankings.

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 150 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 July 2019 Massachusetts first-time bar passage rate was 82.6%, the fifth highest passage rate of the Massachusetts law schools.

UMass Lowell is ranked 87th among the nation's top public schools within the 2021 *U.S. News & World Report Best Colleges* rankings, with programs supporting workforce and economic development through innovation, entrepreneurship and public-private partnerships. UMass Lowell prepares students emphasizing experiential learning through cooperative education, service and research.

UMass Medical School (UMMS), founded in 1962 and situated in Worcester, is the Commonwealth's only public medical school and serves as the University's Nobel-prize winning health sciences campus. Ranked 26th for primary care training in the 2021 *U.S. News & World Report Best Medical*

Schools rankings, UMMS has remained true to its founding mission while also becoming globally recognized in biomedical research. UMMS has three graduate schools—the School of Medicine, the Graduate School of Biomedical Sciences and the Graduate School of Nursing. Unique among all medical schools, UMMS is also home to Commonwealth Medicine (CWM), a health care consulting division that partners with states in delivering health services to vulnerable populations, and MassBiologics, the only non-profit, FDA-licensed vaccine manufacturer in the nation.

UMassOnline, the University of Massachusetts' nationally acclaimed online education consortium, which offered approximately 1,500 online and blended courses and had over 83,000 course enrollments in academic year 2019-2020. UMassOnline students can pursue an associate's, bachelor's, master's or doctoral degree in a variety of in-demand subject areas, including liberal arts, education, management, nursing, public health and information technology. Online students learn from the same world-class instructors as students who study on campus, and they receive an identical degree. UMassOnline programs consistently earn high rankings in *U.S. News & World Report* and *GetEducated.com*.

On June 16, 2020, the University announced its intent to form an exclusive partnership between UMass Online and Brandman University to expand educational opportunities for adult learners in Massachusetts and across the nation. The partnership, which is expected to be finalized later this calendar year, will be launched as millions of adults experience an increased need for flexible, high-quality and affordable online education alternatives as they recover from the economic dislocation caused by COVID-19, which has disproportionately impacted communities of color. The partnership will augment UMass Online, which now supports more than 25,000 students, strengthening its technology platform and enhancing tailored student support services for adult learners. In addition to providing new educational opportunities, the initiative 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.



Photos taken prior to COVID-19 social distancing practices

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.

Through the accountability framework, the University has made consistent improvement in its financial management in various areas. Some examples include:

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

UMASS FINANCIAL ACCOUNTABILITY FRAMEWORK



- Creating a reserve policy to mitigate unforeseen events, address deferred maintenance, advance University priorities, and maintain strong credit ratings; and
- Tracking several key financial ratios: operating margin, operating cash flow margin, debt service and financial leverage ratios, to evaluate University performance against peer institutions.

Through the accountability framework, the University has put the proper controls in place to help manage the harsh financial reality the COVID-19 pandemic has created. FY2020 additions to management's accountability framework toolbox include:

- Scenario planning for the various revenue and expense impacts of different operating plans;
- Adding a new metric, operating liquidity, to the suite of key financial ratios tracked regularly;
- Developing a cash-flow forecasting model, with flexibility to forecast based on varying scenarios; and
- Significantly fortifying the University's ERM program, with risk management playing a strong role in the University's response to the pandemic, both in terms of active tracking and information sharing, and in development of a consistent, University-wide approach to response, planning, testing and procurement of PPE.

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

Operating liquidity includes cash and cash equivalents, money market and other investments, fixed income investments, MMDT, and the pooled investment Fund II. The measure excludes the pooled investment Fund I, and cash and cash equivalents for blended component units. Additional details for the various investment vehicles of the University are found in Note 4 of the accompanying financial statements.

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

Shared Services Initiatives

At a time of financial challenge for public higher education, the University must continuously push itself to find more efficient ways of doing business. In that spirit, in 2019 President Meehan called for the development and implementation of a shared services model of delivering administration and finance services to the campuses. The resulting plan, developed by a team of subject matter experts that included representatives from each campus, delineated the application of a shared services model for accounts payable and procurement, at an estimated total savings of \$16.5 million. This effort also laid the foundation for the exploration of future efficiencies.

To implement this plan, the University formally kicked off its Unified Procurement Services Team (UPST) in January 2020, led by a new University Chief Procurement Officer. This team of professionals is tasked with providing high-quality services while driving transaction efficiency. UPST supports the campuses in cost optimization through proactive commodity sourcing and contracting with innovative suppliers and partners that support 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.

During FY2020, in its first few months of existence, the UPST achieved \$6.6 million of strategic sourcing savings, \$5.3M annualized savings from other benefits/impact activities with the campuses, and identified an additional \$22.0 million of financial benefit opportunities for the University. The University expects to see further savings, efficiencies, and process improvements from the UPST as it continues to mature and further scale its operations.

Based on the success of the UPST, the University is embarking on a second shared service initiative in FY21 that is related to evaluating payroll services.



Photos taken prior to COVID-19 social distancing practices

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, in March 2020, 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. 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. The University was awarded \$46.0 million of funding under the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), half of which was required to be used to provide emergency financial aid to students. The University distributed \$14.7 million in emergency aid to students. Of the portion to be used by the institution, \$13.9 million was utilized to cover costs related to significant changes to the delivery of instruction due to the coronavirus, and to provide additional aid to students. The remaining unspent funds are expected to be used and corresponding revenue recognized in FY2021. The full extent of the impact of COVID-19 on the University's finances is uncertain and will depend on the duration and depth of the pandemic.

Selected financial highlights for the fiscal year ended June 30, 2020 include:

The University's loss before other revenues, expenses, gains, and losses was (\$88.0 million) for FY2020. Postemployment benefit expenses related to Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than*

Pensions (GASB 75) and GASB 68, *Accounting and Reporting for Pensions* (GASB 68) contributed significantly to this loss. Excluding the impact of the postemployment expenses, the University's income before other revenues, expenses, gains, and losses was a positive \$34.1 million.

From FY2019 to FY2020, the University's operating revenues decreased by \$27.3 million driven primarily by refunds made to students for housing and dining costs related to the move to remote learning as a result of COVID-19. Operating expenses increased by \$136.1 million primarily driven by increases in post-employment benefit expenses, depreciation and scholarships and fellowships expenses. Non-operating revenues increased \$28.0 million primarily attributed to an increase in state appropriations and funding received under the CARES Act. As a result of the decrease in revenues and increase in expenses, the University's combined net position decreased \$39.6 million from \$2.5 billion in FY 2019 to \$2.4 billion in FY2020.

Using the Annual Financial Report

The University's financial statements are prepared in accordance with U.S. generally accepted accounting principles as prescribed by 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, 2020 and 2019, 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



Photos taken prior to COVID-19 social distancing practices

scholarships and research. All other assets are unrestricted; however, they may be committed for use under contract or designation by the Board of Trustees (the Board). Note 15 to the accompanying financial statements depicts the designations of unrestricted net position at June 30, 2020 and 2019.

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). 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. Their purpose is to present the sources of cash coming into the University, how that cash was expended, and the change in the 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 this management's discussion and analysis, as well as 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.

Reporting Entity

The financial statements of the University include financial activities of the following blended component units: the University of Massachusetts Building Authority (Building Authority), Worcester City Campus Corporation and Subsidiary (WCCC), the University of Massachusetts Medical School Foundation (UMMSF), and the University of Massachusetts Amherst Foundation (UMAF). The individual financial statements of the Building Authority can be obtained by contacting the Building Authority directly: www.umassba.net.

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

University of Massachusetts Foundation, Inc.

UMF was established in 1950 to foster and promote the growth, progress and general welfare of the University, and

to solicit, receive and administer gifts and donations for such purposes. UMF maintains a portion of the University's investment portfolio, predominantly the endowment and the quasi-endowment investments. The total investments held at UMF on behalf of the University at June 30, 2020, 2019 and 2018 were \$923.7 million, \$738.7 million and \$651.4 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, 2020, 2019 and 2018 were \$57.8 million, \$60.3 million and \$59.5 million, respectively, of which the majority is invested with UMF.

Net Position

Condensed schedules of net position at June 30, 2020, 2019, and 2018, respectively, are presented on page 12.

Assets totaled \$7.6 billion, \$7.4 billion, and \$7.3 billion at June 30, 2020, 2019, and 2018, 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, \$5.0 billion and \$5.1 billion at June 30, 2020, 2019, and 2018, respectively. The majority of the University's long-term liabilities in all three years are long-term debt and pension and other postemployment benefit (OPEB) liabilities.

Net position represents the difference between total assets and total liabilities, and in addition to capital, includes cash, liquid investments, as well as non-cash items and illiquid investments. Total net position was \$2.4 billion, \$2.5 billion and \$2.4 billion at June 30, 2020, 2019 and 2018, respectively. The largest component of net assets for the University remains the net investment in capital assets which held steady at \$2.3-\$2.4 billion for the three years. Unrestricted net position is negative in all three years, due to large employee postemployment benefits (health and pension) liabilities totaling \$1.3 billion.

Revenues, Expenses, and Changes in Net Position

Condensed schedules of revenues, expenses, and changes in net position for the three years ended June 30, 2020, 2019, and 2018, are presented on page 12.

CONDENSED SCHEDULES OF NET POSITION

As of June 30, 2020, 2019, and 2018 (\$ in thousands)	2020	2019	2018
Assets			
Current assets	\$ 1,156,836	\$ 921,582	\$ 918,685
Noncurrent assets			
Capital assets, net	5,206,569	5,164,200	5,075,476
All other noncurrent assets	1,225,544	1,281,662	1,291,309
Total assets	7,588,949	7,367,444	7,285,470
Deferred outflows of resources	531,271	357,541	341,335
Liabilities			
Current liabilities	680,069	799,310	934,525
Noncurrent liabilities	4,750,458	4,237,383	4,161,911
Total liabilities	5,430,527	5,036,693	5,096,436
Deferred inflows of resources	256,926	215,910	141,485
Net position			
Net investment in capital assets	2,376,333	2,343,872	2,288,599
Restricted:			
Nonexpendable	22,252	28,617	28,022
Expendable	223,803	206,023	222,343
Unrestricted	(189,621)	(106,130)	(150,080)
Total net position	\$ 2,432,767	\$ 2,472,382	\$ 2,388,884

CONDENSED SCHEDULES OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

For the years ended June 30, 2020, 2019, and 2018 (\$ in thousands)	2020	2019	2018
Operating revenues			
Tuition and fees, net of scholarships	\$ 917,876	\$ 894,904	\$ 874,826
Grants and contracts	581,850	593,086	560,990
Auxiliary enterprises	378,314	441,795	416,733
Other operating revenues	547,990	523,569	616,265
Total operating revenues	2,426,030	2,453,354	2,468,814
Operating expenses	3,437,442	3,301,311	3,300,392
Operating loss	(1,011,412)	(847,957)	(831,578)
Nonoperating revenues (expenses)			
Federal appropriations	6,774	7,004	6,688
State appropriations	810,518	780,221	751,894
Interest on indebtedness	(109,186)	(116,217)	(115,851)
Nonoperating federal grants	115,601	84,454	81,590
Other nonoperating income	99,753	140,047	110,062
Total nonoperating revenues (expenses)	923,460	895,509	834,383
Income (loss) before other revenues, expenses, gains and losses	(87,952)	47,552	2,805
Other revenues, expenses, gains and losses			
Capital appropriations, grants and other sources	59,041	38,665	76,169
Other (deductions) additions	(10,704)	(2,719)	(1,388)
Total other revenues, expenses, gains, and losses	48,337	35,946	74,781
Total increase (decrease) in net position	(39,615)	83,498	77,586
Net position			
Net position at the beginning of the year	2,472,382	2,388,884	3,054,280
Cumulative effect of adopting GASB 75	-	-	(742,982)
Net position at the beginning of the year, restated	2,472,382	2,388,884	2,311,298
Net position at the end of the year	\$ 2,432,767	\$ 2,472,382	\$ 2,388,884

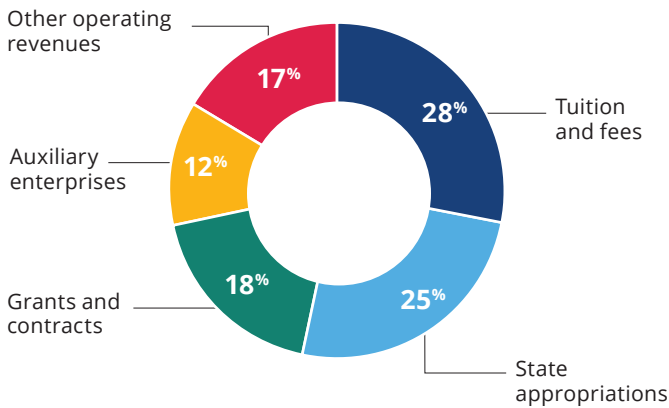
Operating Revenues and Expenses

While not classified on the financial statements as operating revenue, state appropriations serve as a primary source for funding the core mission of the University. State appropriations revenue, described in detail below, is used almost exclusively to fund payroll for University employees, and as such is considered to be operating revenue for management's planning and analysis purposes. The University's operating revenue, including state appropriations, remained essentially flat for the three years presented, at \$3.2 billion.

As noted in the FY2020 operating revenues chart below, over 50% of the University's operating revenues were from tuition and fees and state appropriations. Auxiliary enterprises revenue includes housing and dining revenue. When combined with tuition revenue and grants and contracts revenue, 58% of the University's operating revenue comes from our academic core activities.

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

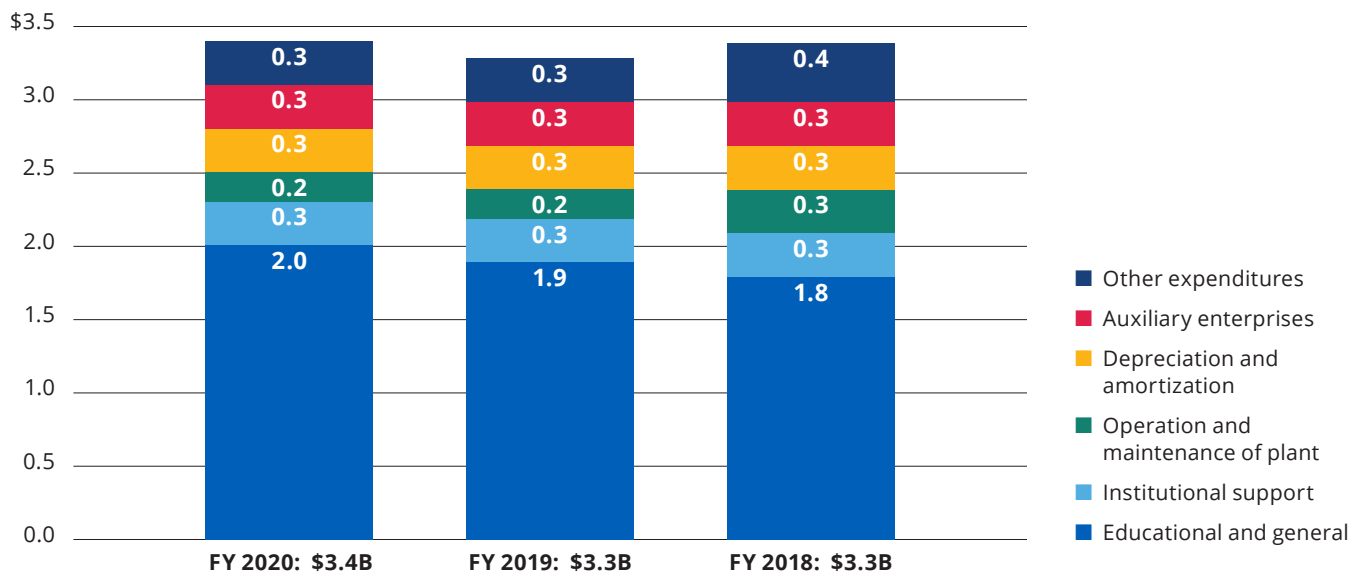
FISCAL YEAR 2020 OPERATING REVENUES (including State Appropriations)



In FY2020, operating expenses, including depreciation and amortization, totaled \$3.4 billion, as compared to \$3.3 billion in 2019 and 2018. Of the FY2020 total, \$2.0 billion or 59% was used to support the academic core activities of the University, including \$485.8 million in research. The education and general portion of the three-year operating expenses chart below represents expenses in the following functional categories: instruction, research, public service, academic support, student services and scholarships and fellowships. Public service activities expenses, included in education and general, include payments made to the Commonwealth pursuant to requirements of legislation enacted by the State Legislature of Massachusetts.

THREE YEAR OPERATING EXPENSES

(\$ in billions)



State Appropriations

In FY2020, state appropriations represented approximately 25% of all operating and non-operating revenues. The level of state support is a key factor influencing the University's overall financial condition. Although the state appropriations are unrestricted revenue, nearly 100% of the state appropriations support payroll and benefits for University employees. In addition to the direct state appropriation there are several smaller appropriations that add to the total state support for the University such as the Star Store lease at the Dartmouth campus and the Springfield Satellite Center, among others. While these smaller line items are in support of campus-specific programs and do not support general University operations, they are included in the state appropriations line in the accompanying financial statements, and in the state appropriations line in the table below.

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 FY2020 by \$30.3 million from FY2019 primarily due to increased collective bargaining costs determined by the State, as well as an increase in the State's fringe benefit rate.

The table below details the state appropriations for the fiscal years ended June 30, 2020, 2019, and 2018.

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 FY2020, FY2019 and FY2018, the capital support provided to the University through appropriations and grants from the Commonwealth

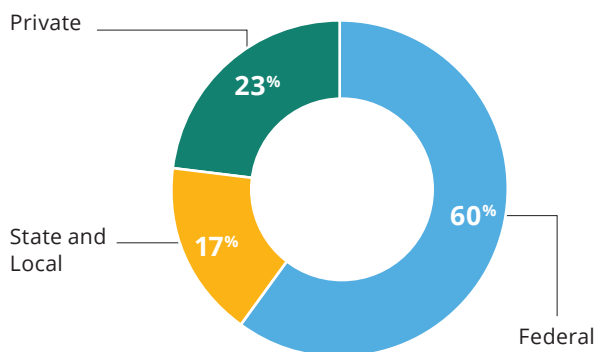
was \$51.5 million, \$25.5 million and \$67.4 million, respectively. Beginning in FY2019, the Commonwealth established a new strategic framework for approving the allocation of state funding for capital projects across higher education. The new framework provides funding in four distinct categories: 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 Medical School account for approximately three-quarters of the University's total grants and contracts revenue of \$581.9 million, \$593.1 million and \$561.0 million at June 30, 2020, 2019 and 2018, respectively. The following chart details the University's grant and contract revenues by source for the year ended June 30, 2020.

GRANT AND CONTRACT REVENUE FY2020



STATE APPROPRIATIONS

(\$ in thousands)	FY 2020	FY 2019	FY 2018
State appropriations	\$ 569,209	\$ 548,879	\$ 528,868
Plus: fringe benefits	241,309	231,342	223,026
Commonwealth support	\$ 810,518	\$ 780,221	\$ 751,894

Tuition And Fees

For academic year 2019–2020, tuition was raised an average of 2.5% for in-state undergraduate students over the prior year. For academic year 2018–2019, tuition was raised on average 2.5% over the prior year. Affordability continues to be a priority of the University and increases in fees are considered in conjunction with State support on an annual basis.

Due to affordability considerations and impacts of the COVID-19 pandemic, in-state undergraduate tuition was frozen for the academic year 2020–2021.

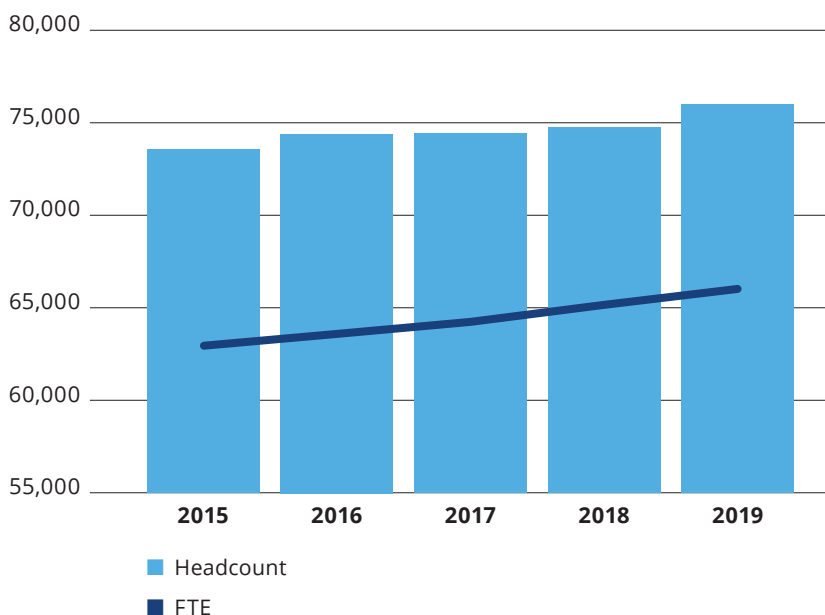
Enrollment

As shown in the table below, total enrollment in the fall of 2019 was 66,010 FTE (75,065 headcount students), an increase of 1.0% over the previous year's enrollment of 65,346 FTE (74,705 headcount students). Enrollment in the fall of 2017 was 64,530 FTE (74,572 headcount students). The five-year enrollment growth of 4.2% from 2015–2019 is meaningful as other institutions of higher education have experienced declining enrollments over this period. This growth is consistent with the University's efforts to increase its reach across the Commonwealth and to recruit non-resident students, and is reflective of the quality of the education provided by the University of Massachusetts.

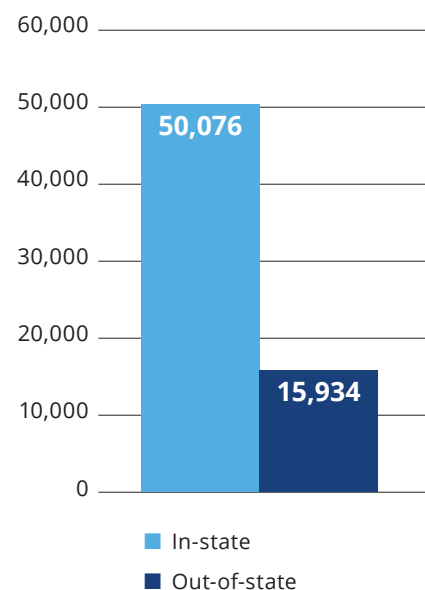
Admission to the University is open to residents of the Commonwealth and non-residents on a competitive basis. For the fall semester, Massachusetts residents accounted for 83.2% and 83.5% of the University's total undergraduate enrollment in Fall 2019 and Fall 2018, respectively.

The online learning consortium of the University, UMassOnline, has shown significant growth in enrollments, course offerings and revenue generation, benefiting the campuses and raising the profile of the University. UMassOnline provides marketing and technology support for campus online offerings that enable students, professionals, and lifelong learners to take courses anywhere, anytime. For FY2020, UMassOnline and the Continuing Education units at the five campuses collaboratively generated tuition revenue of \$120.5 million and supported 83,895 course enrollments, an increase of 3.7% in revenue and an increase of 4.3% in course enrollments as compared to FY2019. For FY2019, UMassOnline generated tuition revenue of \$116.1 million and supported 80,399 course enrollments, an increase of 2.6% in revenue and an increase of 2.5% in course enrollments as compared to FY2018.

FALL TOTAL ENROLLMENT



FALL 2019 ENROLLMENT BY TYPE



Long-term Debt

Long-term debt is the University's largest liability at June 30, 2020, 2019 and 2018. The University had outstanding long-term debt of \$3.2 billion at June 30, 2020, \$3.0 billion at June 30, 2019 and \$3.1 billion at June 30, 2018. The principal issuer of the University's debt is the Building Authority. Additional issuers utilized by the University include Massachusetts Health and Educational Facilities Authority (MHEFA), Massachusetts Development Financing Authority (MDFA), and WCCC.

The debt financed through the Building Authority is being used for construction and renovation of residence halls and general education buildings, replacement of core infrastructure, and construction of academic, laboratory, and research facilities. The proceeds from the UMass MHEFA bonds were used to create an internal revolving loan program and to fund the construction of two new campus centers at the Boston and Lowell campuses (funded jointly with the Commonwealth). For further details on outstanding balances with each issuer, refer to Note 9 of the accompanying financial statements.

University Bond Rating

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

Subsequent to FY2020, all three ratings agencies 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. The stable outlook for the University from Moody's is also notable because Moody's maintains a negative outlook for the higher education industry, with negative rating actions more likely on average in the higher education sector.

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. The amount of bond obligations guaranteed by the Commonwealth at June 30, 2020, 2019 and 2018 was \$108.9 million, \$111.1 million and \$113.5 million, respectively.

Capital Plan

A majority of the capital spending during FY2020 and FY2019 related to continued investments in deferred maintenance. In September 2018, the University's Board approved an updated five-year capital plan for FY2019–FY2023 totaling \$2.1 billion. The University's capital plan is funded through a combination of University operations, bonds issued by the Building Authority and MHEFA, Commonwealth appropriations, and private fundraising.



Photos taken prior to COVID-19 social distancing practices



Photos taken prior to COVID-19 social distancing practices

The University's five-year capital plan for FY2019–FY2023 includes major projects that were previously approved by the Board in prior-year capital plans. The University's capital approval process provides for a multi-step review process involving the President's Office, the Building Authority and the Board. Additional approvals have been put in place for any capital project seeking alternative funding and/or delivery options.

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

Factors Impacting Future Periods

There are a number of issues of University-wide importance that directly impact the financial operations of the University. By far, the biggest factor that impacted the University's FY2020 and is expected to impact future periods is the COVID-19 pandemic. The full extent of the pandemic's impact on FY2021 and beyond is not yet known, and will depend greatly on the trajectory the virus takes in Massachusetts, the ability of the Commonwealth to fund the University through annual appropriation, and the resulting impact on when the University can bring all students back to the campuses.

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

Contacting The University

This financial report is designed to provide the University, the Commonwealth, the public and other interested parties with an overview of the financial results of the University and an explanation of the University's financial condition. If you have any questions about this report or require additional information, please contact the University Controller, Barbara Cevallos by email at bcevallos@umassp.edu.

STATEMENTS OF NET POSITION

As of June 30, 2020 and 2019 (\$ in thousands)	2020	2019
Assets		
Current assets		
Cash and cash equivalents	\$ 65,002	\$ 84,986
Cash held by state treasurer	21,474	12,560
Deposits with bond trustees	76,551	-
Accounts receivable, net	326,879	286,028
Short-term investments	620,771	489,907
Other current assets	46,159	48,101
Total current assets	1,156,836	921,582
Noncurrent assets		
Cash held by state treasurer	17,190	8,420
Deposits with bond trustees	282,379	211,926
Accounts receivable, net	50,389	55,123
Long-term investments	748,689	869,663
Other assets	126,897	136,530
Capital assets, net	5,206,569	5,164,200
Total noncurrent assets	6,432,113	6,445,862
Total assets	7,588,949	7,367,444
Deferred outflows of resources	531,271	357,541
Liabilities		
Current liabilities		
Accounts payable and accrued expenses	319,829	325,624
Unearned revenues and advances	96,275	61,340
Long-term debt, current portion	203,408	341,888
Other current liabilities	60,557	70,458
Total current liabilities	680,069	799,310
Noncurrent liabilities		
Unearned revenues and advances	59,529	61,658
Long-term debt	2,992,770	2,700,490
Derivative instruments, interest rate swaps	72,981	55,622
Net pension liability	526,739	409,319
Net other postemployment benefits liability	992,991	895,669
Other long-term liabilities	105,448	114,625
Total noncurrent liabilities	4,750,458	4,237,383
Total liabilities	5,430,527	5,036,693
Deferred inflows of resources	256,926	215,910
Net position		
Net investment in capital assets	2,376,333	2,343,872
Restricted:		
Nonexpendable	22,252	28,617
Expendable	223,803	206,023
Unrestricted	(189,621)	(106,130)
Total net position	\$ 2,432,767	\$ 2,472,382

See accompanying notes to the financial statements.

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

For The Years Ended June 30, 2020 and 2019 (\$ in thousands)	2020	2019
Revenues		
Operating revenues		
Tuition and fees (net of scholarship allowances of \$343,031 at June 30, 2020 and \$328,845 at June 30, 2019)	\$ 917,876	\$ 894,904
Grants and contracts	581,850	593,086
Sales and services, educational activities	31,248	34,984
Auxiliary enterprises	378,314	441,795
Other operating revenues:		
Sales and services, independent operations	62,829	59,893
Sales and services, public service activities	337,709	291,085
Other	116,204	137,607
Total operating revenues	2,426,030	2,453,354
Expenses		
Operating expenses		
Educational and general		
Instruction	960,548	912,415
Research	485,759	490,887
Public service	84,248	86,251
Academic support	200,928	186,502
Student services	157,842	160,751
Institutional support	303,100	274,326
Operation and maintenance of capital assets	241,880	248,581
Depreciation and amortization	288,667	276,638
Scholarships and fellowships	65,469	49,511
Auxiliary enterprises	336,497	340,346
Other expenditures		
Independent operations	56,256	48,282
Public service activities	256,248	226,821
Total operating expenses	3,437,442	3,301,311
Operating loss	(1,011,412)	(847,957)
Nonoperating revenues (expenses)		
Federal appropriations	6,774	7,004
State appropriations	810,518	780,221
Gifts	41,996	43,705
Investment income, net	32,762	48,943
Unrealized gain (loss) on investments	(3,414)	18,082
Endowment return used for operations	28,113	27,741
Interest expense	(109,186)	(116,217)
Nonoperating federal grants	115,601	84,454
Other nonoperating income	296	1,576
Net nonoperating revenues	923,460	895,509
Income (loss) before other revenues, expenses, gains, and losses	(87,952)	47,552
Other revenues, expenses, gains and losses		
Capital appropriations	51,525	25,500
Capital grants, contracts and gifts	7,516	13,165
Endowment return, net of amount used for operations	(2,917)	13,467
Other deductions	(7,787)	(16,186)
Total other revenues, expenses, gains, and losses	48,337	35,946
Total increase (decrease) in net position	(39,615)	83,498
Net position		
Net position at beginning of year	2,472,382	2,388,884
Net position at end of year	\$ 2,432,767	\$ 2,472,382

See accompanying notes to the financial statements.

STATEMENTS OF CASH FLOWS

For The Years Ended June 30, 2020 and 2019 (\$ in thousands)	2020	2019
Cash flows from operating activities		
Tuition and fees	\$ 1,019,555	\$ 985,147
Grants and contracts	615,384	587,539
Payments to suppliers	(940,286)	(951,973)
Payments to employees	(1,615,385)	(1,602,968)
Payments for benefits	(496,826)	(480,371)
Payments for scholarships and fellowships	(90,488)	(76,825)
Loans issued to students and employees	(11,979)	(8,882)
Collections of loans to students and employees	15,904	17,660
Auxiliary enterprises	377,585	441,563
Sales and services, educational	30,911	35,360
Sales and services, independent operations	62,829	59,893
Sales and services, public service activities	352,748	292,176
Student related fiduciary activities inflows	13,122	12,649
Student related fiduciary activities outflows	(16,299)	(11,429)
Other receipts, net	56,239	191,090
Net cash used for operating activities	(626,986)	(509,371)
Cash flows from noncapital financing activities		
State appropriations	810,518	780,221
Federal appropriations	6,774	7,004
Grants, contracts and gifts for other than capital purposes	45,107	52,308
Nonoperating federal grants	115,601	84,454
Student organization transactions	(619)	(802)
Net cash provided by noncapital financing activities	977,381	923,185
Cash flows from capital and other financing activities		
Proceeds from capital debt	663,061	278,041
Proceeds from premiums received	57,127	47,633
Capital lease payments received	-	4,252
Bond issuance costs paid	(3,596)	(1,430)
Capital appropriations	51,525	25,500
Capital grants, contracts and gifts	4,405	4,562
Purchases of capital assets and construction	(341,247)	(382,048)
Principal paid on capital debt and leases	(549,788)	(358,080)
Interest paid on capital debt and leases	(132,468)	(137,517)
Net cash used for capital financing activities	(250,981)	(519,087)
Cash flows from investing activities		
Proceeds from sales and maturities of investments	1,652,557	1,350,013
Interest on investments	34,383	47,623
Purchases of investments	(1,641,650)	(1,404,860)
Net cash provided by (used for) investing activities	45,290	(7,224)
Net increase (decrease) in cash and cash equivalents	144,704	(112,497)
Cash and cash equivalents - beginning of the year	317,892	430,389
Cash and cash equivalents - end of the year	462,596	317,892

STATEMENTS OF CASH FLOWS

For The Years Ended June 30, 2020 and 2019 (\$ in thousands)

	2020	2019
Reconciliation of operating loss to net cash used for operating activities		
Operating loss	(1,011,412)	(847,957)
Adjustments to reconcile loss to net cash used for operating activities:		
Depreciation and amortization expense	288,667	276,638
Changes in assets and liabilities:		
Accounts receivable, net	(36,117)	29,219
Other assets	9,954	(23,761)
Accounts payable and accrued expenses	(2,300)	5,335
Unearned revenues and advances	32,806	(57,315)
Other liabilities	(19,078)	(26,702)
Postemployment benefits liability, net	122,012	60,610
Fiduciary transactions	(780)	(495)
Changes in deferred outflows related to assets	2	(1,782)
Changes in deferred inflows related to future revenues	(10,740)	76,839
Net cash used for operating activities	(626,986)	(509,371)
Supplemental disclosure of noncash activities		
Assets acquired and included in accounts payable and other liabilities	29,669	36,558
Loss on disposals of capital assets	(9,467)	(14,331)
Donated assets	258	1,390

See accompanying notes to the financial statements.



Photos taken prior to COVID-19 social distancing practices

STATEMENTS OF FINANCIAL POSITION

As of June 30, 2020 and 2019 (\$ in thousands)	2020	2019
Assets		
Cash	\$ 807	\$ 925
Bequests receivable	3,155	2,311
Pledges receivable, net	26,854	20,417
Investments of the Foundations and held on behalf of the University	1,544,756	1,338,359
Prepaid expenses and other assets	3,374	2,917
Land, property, plant and equipment, net	16,057	16,481
Total assets	1,595,003	1,381,410
Liabilities and net assets		
Liabilities		
Accounts payable and accrued expenses	635	492
Deferred revenue	3,975	944
Obligations to beneficiaries of split-interest agreements	2,649	2,386
Assets held on behalf of others	948,085	762,232
Total liabilities	955,344	766,054
Net assets		
Without donor restrictions	38,417	37,404
With donor restrictions	601,242	577,952
Total net assets	639,659	615,356
Total liabilities and net assets	\$ 1,595,003	\$ 1,381,410

STATEMENT OF ACTIVITIES

For The Year Ended June 30, 2020 (with summarized financial information for the year ended June 30, 2019) (\$ in thousands)	Without donor restriction	With donor restriction	Total 2020	Total 2019
Support and revenue				
Gifts, bequests and grants	\$ 376	\$ 29,357	\$ 29,733	\$ 21,064
Other contributions	200,585	2,285	202,870	60,873
Total investment income, including net gains (losses) - net of fees	2,936	13,928	16,864	75,323
Investment management fee	10,963	-	10,963	10,935
Other income	-	50	50	271
Net assets released from restrictions	22,926	(22,926)	-	-
Total support and revenue	237,786	22,694	260,480	168,466
Expenses				
Distributions to University	35,682	-	35,682	36,334
Program services	5,415	-	5,415	9,718
Fundraising support	8,005	-	8,005	7,999
Administrative and general	2,292	-	2,292	2,353
Total expenses	51,394	-	51,394	56,404
Excess of support and revenue over expenses	186,392	22,694	209,086	112,062
Less: Fiscal 2020 activity related to assets held on behalf of University	(184,931)	25	(184,906)	(87,384)
Less: Fiscal 2020 activity related to assets held on behalf of Edward M. Kennedy Institute	673	-	673	4,011
Transfers (from) to other funds	(571)	571	-	-
Change in value of split interest agreements	(550)	-	(550)	(388)
Change in net assets	1,013	23,290	24,303	28,301
Net assets, beginning of year	37,404	577,952	615,356	587,055
Net assets, end of year	\$ 38,417	\$ 601,242	\$ 639,659	\$ 615,356

See accompanying notes to the financial statements.

Notes to Financial Statements

1. Summary of Significant Accounting Policies

Reporting entity

The University of Massachusetts (University), a federal land grant institution, is governed by Massachusetts General Laws Chapter 75. Its Board of Trustees (Board 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 three non-voting members are student representatives who may only participate in open meetings of the full Board of Trustees.

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

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

The Building Authority is a public instrumentality of the Commonwealth created by Chapter 773 of the Acts of 1960 (referred to as the Enabling Act), whose purpose is to provide dormitories, dining commons, and other buildings and structures for use by the University. WCCC is a tax-exempt organization founded to support research and real property activities for the University. The UMAF 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 Medical School. These component units are blended in the financial statements of the University because of the significance and exclusivity of their financial relationships with the University. Refer to Note 17 for condensed financial information for these blended component units.

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

The University of Massachusetts Lowell Applied Research Corporation (UMLARC), a legally separate 501(c)(3) non-profit corporation, was formed on June 24, 2020. The purpose of UMLARC is to promote efficient and effective applied research and development by entering into grants, contracts, and other contractual mechanisms for services, in conjunction with the University Massachusetts Lowell Research Institute and its research partners. UMLARC will also provide analytic and technology solutions to government and non-government entities to extend the impact of the University's technology enterprise. There is no financial activity for the UMLARC included within the financial statements as of June 30, 2020. Because the memorandum of understanding between UMLARC and UMass Lowell is not yet complete, the determination of discrete or blended component unit is pending.

Basis of presentation

The accompanying financial statements have been prepared in accordance with U.S. generally accepted accounting principles (GAAP) as prescribed by the 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 annual financial report 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 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 the UMass Medical School (UMMS) under its Commonwealth Medicine (CWM) programs, which provide consulting and services in health care financing, administration and policy to federal, state and local agencies and not-for-profit health and policy organizations. Also included in other operating revenues are payments received by the Medical School for educational services it provides to its clinical affiliate, UMass Memorial Medical Center (UMass Memorial).

Operating expenses include, among other items, payroll, fringe benefits, utilities, supplies and services, depreciation, and amortization. Nonoperating revenues or expenses are those in which the University receives or gives value without directly giving or receiving equal value, such as State and Federal appropriations, CARES Act revenue, Federal Pell grants, private gifts, and investment income.

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

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

Net position

Net position is classified into the following categories:

- **Net investment in capital assets:** Capital assets, at historical cost or fair market value on the date of gift, net of accumulated depreciation and outstanding principal balances of debt attributable to the acquisition, construction or improvement of those assets.
- **Restricted nonexpendable:** Resources subject to externally imposed stipulations that they be maintained permanently by the University.
- **Restricted expendable:** Resources whose use by the University is subject to externally imposed stipulations. Such assets include restricted grants and contracts, the accumulated net gains/losses on true endowment funds, as well as restricted funds loaned to students, restricted gifts and endowment income, and other similar restricted funds.
- **Unrestricted:** The net position that is not subject to externally imposed restrictions governing their use. The University's unrestricted net position may be designated for specific purposes by management or the Board. Substantially all of the University's unrestricted net position is designated to support academic and research initiatives or programs, auxiliary enterprises, quasi-endowments, or commitments to capital construction projects. Note 15 describes these designations in more detail.

Cash and cash equivalents

Cash and cash equivalents include cash balances maintained in checking accounts, overnight repurchase agreements and amounts held in permitted money market mutual funds with an original maturity date of three months or less.

In addition, 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, 2020 and 2019 was 4%.

Capital assets

Capital assets are stated at cost on the date of acquisition or, in the case of gifts, fair value upon date of donation. Net interest costs incurred during the construction period for major capital projects are capitalized. Repairs and maintenance costs are expensed as incurred, whereas major improvements that extend the estimated useful lives of the assets are capitalized as additions to capital assets. The University does not capitalize works of art, historical treasures or library books.

The University 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.

Following is the range of useful lives for the University's depreciable assets:

Depreciable asset category	Useful life in years
Land improvements	20
Buildings	20-40
Infrastructure	50
Building improvements	3-20
Equipment, furniture and IT infrastructure	3-15
Software	5

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

Deferred outflows and inflows of resources

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

The components of deferred outflows and inflows of resources as of June 30, 2020 and 2019 included the following (\$ in thousands):

As of June 30, 2020 and 2019 (\$ in thousands)	2020	2019
Deferred outflows of resources		
Change in fair value of interest rate swap agreements	\$ 52,978	\$ 34,262
Debt refunding	79,648	69,119
Certain asset retirement obligations	1,781	1,782
Impact of assumption changes and investment losses to:		
Pension liability	158,057	113,654
Other postemployment benefits liability	238,807	138,724
	\$ 531,271	\$ 357,541
Deferred inflows of resources		
Sale of future revenues	66,099	76,839
Experience gains for:		
Pension liability	39,778	60,182
Other postemployment benefits liability	151,049	78,889
	\$ 256,926	\$ 215,910

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, 2020 and 2019, bond issuance costs amounted to \$3.6 million and \$1.4 million, respectively, and were expensed.

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, 2020 and 2019 was \$136.2 million and \$136.8 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 \$46 million from the Higher Education Emergency Relief Fund (HEERF). \$14.7 million of the funds awarded were used for emergency financial aid grants under the 18004(a)(1) CARES Act and recognized as non-operating federal grants revenue in fiscal 2020. An additional \$13.9 million was used to cover costs related to significant changes to the delivery of instruction due to the coronavirus, and to provide additional financial aid to students, and was also recorded as non-operating federal grant revenue in fiscal 2020. The remaining unused awarded amounts will be recorded in fiscal 2021 as qualifying expenses for students and the University are incurred.

Auxiliary enterprises

An auxiliary enterprise is an activity that exists to furnish a service to students, faculty or staff acting in a personal capacity, and that charges a fee for the use of goods and services. For the University, housing and dining revenues are included in auxiliary enterprises.

Fringe benefits for current employees and postemployment obligations

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

Use of estimates

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

Income tax status

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

WCCC, UMF, UMMSF and UMDF are organizations described in Section 501(c)(3) of the Code, and are generally exempt from income taxes pursuant to Section 501(a) of the Code. WCCC, UMF, UMMSF and UMDF are required to assess uncertain tax positions and have determined that there were no such positions that are material to the financial statements as of June 30, 2020 and 2019, respectively.

Newly implemented accounting standards

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

Position. These fiduciary activities were reclassified to the operating activities portion of the Statement of Cash Flows from noncapital financing activities at June 30, 2020 and 2019, respectively.

Immaterial correction

For the fiscal year ended June 30, 2019 the University reported its proportionate share of activity related to post-employment benefits for its participation in the Commonwealth OPEB plan in accordance with GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions*. The GASB 75 schedule of employer and non-employer allocations of the Commonwealth's OPEB Plan that was utilized to report information within the University's fiscal 2019 financial statements in accordance with GASB 75 was subsequently revised. The University recorded an immaterial correction to its previously reported financial statements to properly reflect its revised proportionate share of activity related to post-employment.

The table below presents the effect on the University's previously reported net position as a result of the immaterial correction noted.

\$ in thousands	2019 Financial statement line item as previously reported	Immaterial correction related to GASB statement No. 75	2019 Financial statement line item as restated
Statement of net position impact			
Deferred outflows of resources	\$ 356,683	\$ 858	\$ 357,541
Net other postemployment benefits liability	718,955	176,714	895,669
Deferred inflows of resources	361,245	(145,335)	215,910
Net position-unrestricted (deficit)	(75,609)	(30,521)	(106,130)
Statement of revenues, expenses, and changes in net position impact			
Operating expenses			
Instruction	901,235	11,180	912,415
Research	487,725	3,162	490,887
Public service	83,566	2,685	86,251
Academic support	184,462	2,040	186,502
Student services	158,991	1,760	160,751
Institutional support	269,126	5,200	274,326
Operation and maintenance of capital assets	246,725	1,856	248,581
Scholarships and fellowships	49,509	2	49,511
Auxiliary enterprises	338,207	2,139	340,346
Independent operations	47,785	497	48,282
Total operating expenses	\$ 3,270,790	\$ 30,521	\$ 3,301,311

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 \$38.7 million and \$21.0 million at June 30, 2020 and June 30, 2019, respectively. The University has recorded a comparable amount of cash held by the State Treasurer for the benefit of the University, which will be subsequently utilized to pay for such liabilities. The cash is held in the State Treasurer's pooled cash account. The Commonwealth requires all bank deposits in excess of insurance coverage by the FDIC to be collateralized with a perfected pledge of eligible collateral. Eligible collateral must be pledged in an amount equal to 102% of the amount of the deposits that exceed FDIC insurance. Sufficient collateral to cover total Commonwealth deposits in excess of the FDIC insured amount must be pledged and held in safekeeping by a custodian that is approved by and under the control of the Commonwealth Treasurer and Receiver - General.

3. Deposits with Bond Trustees

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

At June 30, 2020 and 2019, deposits with bond trustees consisted of the following (\$ in thousands):

	2020	2019
Cash	\$ 18,410	\$ 10,253
MMDT	330,712	191,988
Repurchase agreements and other investments	5,317	5,318
Permitted money market accounts	4,491	4,367
Total deposits with bond trustees	\$ 358,930	\$ 211,926

At June 30, 2020, amounts restricted by bond trust agreements for capital projects, debt service and other purposes were \$324 million, \$22 million, and \$12.9 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, 2020 and 2019, the bank balances of uninsured deposits totaled \$5.5 million and \$3.6 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, 2020 and 2019, respectively, includes the following (\$ in thousands):

	2020	2019
Short-term investments	\$ 620,771	\$ 489,907
Long-term investments	748,689	869,663
Total	\$ 1,369,460	\$ 1,359,570

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 trust funds of the University. UMF holds certain investments on behalf of the University. In the table on page 30, these investments are identified as Foundation Agency Funds.

The endowment and similar investment holdings of the University, Foundation Agency Funds, and the Foundations, as of June 30, 2020 and 2019, respectively are summarized below (\$ in thousands):

	University		Foundations	
	2020	2019	2020	2019
Cash and cash equivalents	\$ 40,009	\$ 111,408	\$ 36,318	\$ 31,914
Money market and other investments	128,225	260,000	4,082	4,411
MMDT	117,000	95,000	-	-
Fixed income investments	144,045	139,398	1,558	3,784
Pooled investments - Fund I	-	-	576,092	556,031
Commercial ventures and intellectual property	4,532	1,857	40	-
Annuity life income funds	11,972	13,160	2,989	3,472
	\$ 445,783	\$ 620,823	\$ 621,079	\$ 599,612
Foundation agency funds:				
Pooled investments - Fund I	608,763	415,445	608,763	415,445
Pooled investments - Fund II	314,914	323,302	314,914	323,302
	\$ 1,369,460	\$ 1,359,570	\$ 1,544,756	\$ 1,338,359

Fund I – This fund is the pool of funds that represent the endowment funds held at UMF. These funds include both donor-restricted endowments and quasi-endowments. The portion of the Pooled investments — Fund I under the Foundations column in the above table represents the University's true endowment. The portion of the Pooled investments — Fund I that are noted as Foundation agency funds represent the quasi-endowments. The investment horizon for this portfolio is 5 to 10 years. During fiscal year 2020 the University transferred additional operating cash balances to UMF for longer term investment.

Fund II – This fund represents a portion of the operating cash balances of the University that have been transferred to UMF for investment purposes only. This portfolio is used by the University as an intermediate term investment vehicle. The University Treasurer has the authority to request the return of funds at any time in order to meet the operating needs of the University. In anticipation of future cash needs, particularly in light of COVID-19 uncertainties, the majority of assets of Fund II were converted to cash equivalents in the 4th quarter of fiscal year 2020. These cash equivalent investments are included within short-term investments on the Statement of Net Position at June 30, 2020.

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 \$86.5 million and \$107.1 million, at June 30, 2020 and 2019, respectively.

The University held non-money market investments with a fair market value of \$729.9 million and \$869.1 million at June 30, 2020 and 2019, 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, 2020 and 2019, there is no concentration of investments from one issuer equal to or greater than 5% of the portfolio. Investments issued or guaranteed by the U.S. government, as well as investments in mutual funds and other pooled investments are excluded from consideration when evaluating concentration risk.

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

The table below 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, 2020 (\$ in thousands):

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

The table below 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, 2019 (\$ in thousands):

	S&P quality ratings								Total
	AAA	AA	A	BBB	BB	B	<B	Unrated	
Debt securities									
Government agency bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 582	\$ 582
Asset backed securities	16,374	-	176	569	-	-	-	2,263	19,382
Commercial mortgage-backed securities	8,015	-	-	-	-	-	-	1,103	9,118
Government issued commercial mortgage-backed securities	-	-	-	-	-	-	-	11	11
Government mortgage-backed securities	-	-	-	-	-	-	-	4,539	4,539
Non-government backed CMOs	1,217	-	-	-	-	-	-	114	1,331
Corporate bonds	-	4,390	24,672	33,019	231	-	-	42	62,354
Municipal and provincial bonds	-	1,835	-	402	-	-	-	-	2,237
Bond funds, including exchange traded funds	56,472	16,512	17,318	26,615	7,815	2,351	210	8,781	136,074
Total debt securities	\$82,078	\$22,737	\$42,166	\$60,605	\$8,046	\$2,351	\$ 210	\$ 17,435	\$ 235,628

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

The following table presents the fair value of the rated debt investments component of the University's investment portfolio by investment maturity as of June 30, 2020 (\$ in thousands):

	Investment maturity (in years)				
	Less than 1	1 to 5	6 to 10	More than 10	Total
Debt securities					
U.S. Treasury securities	\$ -	\$ 40,211	\$ 4,842	\$ -	\$ 45,053
Government agency bonds	-	248	525	-	773
Asset backed securities	5,427	12,202	1,984	-	19,613
Commercial mortgage-backed securities	3,758	10,336	110	-	14,204
Government issued commercial mortgage-backed securities	-	-	624	-	624
Government mortgage-backed securities	2,223	3,679	-	-	5,902
Non-government backed CMOs	350	1,576	-	-	1,926
Corporate bonds	13,120	62,946	4,875	420	81,361
Municipal and provincial bonds	1,730	43	-	-	1,773
Index linked government bonds	-	1,209	314	-	1,523
Bond funds, including exchange traded funds	59	1,861	1,421	29	3,370
Total debt securities	\$ 26,667	\$ 134,311	\$ 14,695	\$ 449	\$ 176,122

The following table presents the fair value of the rated debt investments component of the University's investment portfolio by investment maturity as of June 30, 2019 (\$ in thousands):

	Investment maturity (in years)				
	Less than 1	1 to 5	6 to 10	More than 10	Total
Debt securities					
U.S. Treasury securities	\$ -	\$ 71,340	\$ 5,675	\$ -	\$ 77,015
Government agency bonds	-	78	504	-	582
Asset backed securities	7,879	10,041	1,462	-	19,382
Commercial mortgage-backed securities	1,426	7,250	-	442	9,118
Government issued commercial mortgage-backed securities	11	-	-	-	11
Government mortgage-backed securities	2,211	2,082	246	-	4,539
Non-government backed CMOs	627	704	-	-	1,331
Corporate bonds	8,778	49,604	3,460	512	62,354
Municipal and provincial bonds	2,091	146	-	-	2,237
Bond funds, including exchange traded funds	25,471	80,406	25,615	4,582	136,074
Total debt securities	\$ 48,494	\$ 221,651	\$ 36,962	\$ 5,536	\$ 312,643

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, 2020 and 2019, the University had no plans or intentions to sell such investments at amounts different from NAV.

The following table summarizes the fair value of the University's investments by type as of June 30, 2020 (\$ in thousands):

	Investments measured at NAV	Investments classified in the fair value hierarchy			
		Level 1	Level 2	Level 3	Total
Money market funds	\$ -	\$ 452,044	\$ -	\$ -	\$ 452,044
Debt securities					
U.S. Treasury securities	-	45,053	-	-	45,053
Government agency bonds	-	-	773	-	773
Asset backed securities	-	-	19,613	-	19,613
Commercial mortgage-backed securities	-	-	14,204	-	14,204
Government issued commercial mortgage-backed securities	-	-	624	-	624
Government mortgage-backed securities	-	-	5,902	-	5,902
Non-government backed CMOs	-	-	1,602	324	1,926
Corporate bonds	-	-	81,115	42	81,157
Non US Corporate Bonds	-	-	204	-	204
Municipal and provincial bonds	-	-	1,773	-	1,773
Index linked government Bonds	-	-	1,523	-	1,523
Bond funds, including exchange traded funds	-	3,370	-	-	3,370
Total debt securities	-	48,423	127,333	366	176,122
Equity securities					
Domestic equities	-	68,117	-	1,585	69,702
International equities	-	30,648	-	-	30,648
Total equity securities	-	98,765	-	1,585	100,350
Alternative investments					
Multi-strategy hedge funds					
Equity	181,521	-	-	-	181,521
Long/short	136,270	-	-	-	136,270
Fixed income	32,332	-	-	-	32,332
Absolute return	36,026	-	-	-	36,026
Real assets	12,881	-	-	-	12,881
Private equity and venture capital	32,420	-	-	-	32,420
Private debt	11,148	-	-	-	11,148
Private real estate	8,847	-	-	-	8,847
Total alternative investments	451,445	-	-	-	451,445
Total investments at fair value	451,445	599,232	127,333	1,951	1,179,961
Cash and cash equivalents	-	-	-	-	72,499
MMDT	-	-	-	-	117,000
Total investments at cost	-	-	-	-	189,499
Total investments	\$ 451,445	\$ 599,232	\$ 127,333	\$ 1,951	\$ 1,369,460

The following table 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, 2020 (\$ in thousands):

	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Alternative investments					
Multi-strategy hedge funds					
Equity	\$ 181,521	\$ -	Daily to quarterly	01-90 days	Lock-up provisions range from none to 2 years.
Long/short	136,270	-	Quarterly to annual	45-90 days	Lock-up provisions range from none to 3 years.
Fixed income	32,332	-	Quarterly	(2)	Lock-up provisions range from none to 1 year.
Absolute return	36,026	-	Quarterly to annual	45-65 days	No lock-up restrictions
Real assets	12,881	-	Annual	90 days	No lock-up restrictions
Private equity and venture capital	32,420	12,933	Closed end funds	(1)	Not redeemable
Private debt	11,148	13,597	Closed end funds	(1)	Not redeemable
Private real estate	8,847	1,513	Closed end funds	(1)	Not redeemable
Total	\$ 451,445	\$ 28,043			

- (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.
- (2) 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.



Photos taken prior to COVID-19 social distancing practices

The following table summarizes the fair value of the University's investments by type as of June 30, 2019 (\$ in thousands):

	Investments measured at NAV	Investments classified in the fair value hierarchy			
		Level 1	Level 2	Level 3	Total
Money market funds	\$ -	\$ 284,110	\$ -	\$ -	\$ 284,110
Debt securities					
U.S. Treasury securities	-	77,015	-	-	77,015
Government agency bonds	-	-	582	-	582
Asset backed securities	-	-	19,382	-	19,382
Commercial mortgage-backed securities	-	-	9,118	-	9,118
Government issued commercial mortgage-backed securities	-	-	11	-	11
Government mortgage-backed securities	-	-	4,539	-	4,539
Non-government backed CMOs	-	-	1,331	-	1,331
Corporate bonds	-	-	62,312	42	62,354
Municipal and provincial bonds	-	-	2,237	-	2,237
Bond Funds, including exchange traded funds	-	136,074	-	-	136,074
Total debt securities	-	213,089	99,512	42	312,643
Equity securities					
Domestic equities	-	94,472	-	1,585	96,057
International equities	-	77,612	-	-	77,612
Total equity securities	-	172,084	-	1,585	173,669
Alternative investments					
Multi-strategy hedge funds					
Equity	121,787	-	-	-	121,787
Long/short	87,890	-	-	-	87,890
Fixed income	60,235	-	-	-	60,235
Absolute return	35,238	-	-	-	35,238
Real assets	12,466	-	-	-	12,466
Private equity and venture capital	18,253	-	-	-	18,253
Private debt	18,834	-	-	-	18,834
Private real estate	7,422	-	-	-	7,422
Total alternative investments	362,125	-	-	-	362,125
Other securities	-	20,615	-	-	20,615
Total investments at fair value	362,125	689,898	99,512	1,627	1,153,162
Cash and cash equivalents	-	-	-	-	63,408
Certificates of deposit	-	-	-	-	48,000
MMDT	-	-	-	-	95,000
Total investments at cost	-	-	-	-	206,408
Total investments	\$ 362,125	\$ 689,898	\$ 99,512	\$ 1,627	\$ 1,359,570

The following table 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, 2019 (\$ in thousands):

	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Alternative investments					
Multi-strategy hedge funds					
Equity	\$ 121,787	\$ -	Daily to quarterly	01–60 days	No lock-up restrictions
Long/short	87,890	-	Quarterly to annual	45–80 days	Lock-up provisions range from none to 1 year
Fixed income	60,235	-	Quarterly	(2)	Lock-up provisions range from none to 2 years
Absolute return	35,238	-	Daily to annual	45–65 days	No lock-up restrictions
Real assets	12,466	-	Annual	90 days	No lock-up restrictions
Private equity and venture capital	18,253	14,626	Closed end funds	(1)	Not redeemable
Private debt	18,834	16,942	Closed end funds	(1)	Not redeemable
Private real estate	7,422	2,889	Closed end funds	(1)	Not redeemable
Total	\$ 362,125	\$ 34,457			

(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.

(2) 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.

5. Accounts Receivable, Net

Accounts receivable as of June 30, 2020 and 2019 are as follows (\$ in thousands):

	2020	2019
Student tuition and fees	\$ 64,299	\$ 56,676
Student loans	43,001	54,403
Pledges	38,694	24,655
Grants and contracts	93,772	102,761
CWM program	62,399	60,322
UMass Memorial	68,070	22,131
Other	43,150	44,457
	413,385	365,405
Less: allowance for doubtful accounts and discount to present value for pledges	(36,117)	(24,254)
Accounts receivable, net	\$ 377,268	\$ 341,151

The receivable from UMass Memorial, which is uncollateralized, represents a potential concentration of credit risk for the University. This receivable represents 17.8% and 6.5% of total accounts receivable for the University at June 30, 2020 and 2019, respectively.

6. UMass Memorial Medical Center

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

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

The University is reimbursed by, and reimburses UMass Memorial for shared services, cross-funded employees, and other agreed upon activities provided and purchased. For the years ended June 30, 2020 and 2019, the cash reimbursements received for services provided to UMass Memorial were \$119.0 million and \$177.1 million, respectively. Included in these amounts are payroll paid by the University on behalf of UMass Memorial in an agency capacity in the amount of \$65.1 million and \$109.3 million for the years ended June 30, 2020 and 2019, respectively. As of June 30, 2020 and 2019, the University has recorded a receivable in the amount of \$68.1 million and \$22.1 million, respectively from UMass Memorial which includes \$38.6 million and \$11.7 million, respectively, in payroll and related fringe charges. The University has recorded a payable of \$4.8 million and \$9.5 million at June 30, 2020 and 2019, respectively, primarily for cross-funded payroll.

7. Capital Assets

The following table represents the University's capital assets activity for the years ended June 30, 2020 and 2019 (\$ in thousands):

	As of June 30, 2018	Additions	Retirements/ adjustments	As of June 30, 2019	Additions	Retirements/ adjustments	As of June 30, 2020
Land	\$ 165,368	\$ 1,336	\$ (680)	\$ 166,024	\$ -	\$ -	\$ 166,024
Buildings and improvements	6,498,865	642,801	(35,340)	7,106,326	257,356	(6,578)	7,357,104
Software	113,184	6,747	(5,639)	114,292	5,709	-	120,001
Equipment and furniture	699,893	41,929	(24,779)	717,043	37,102	(41,632)	712,513
Library books	53,574	-	(6,609)	46,965	-	(7,347)	39,618
	7,530,884	692,813	(73,047)	8,150,650	300,167	(55,557)	8,395,260
Accumulated depreciation	(3,076,896)	(276,638)	48,797	(3,304,737)	(288,667)	45,643	(3,547,761)
	4,453,988	416,175	(24,250)	4,845,913	11,500	(9,914)	4,847,499
Construction in progress	621,488	328,232	(631,433)	318,287	213,480	(172,697)	359,070
Total capital assets, net	\$ 5,075,476	\$ 744,407	\$ (655,683)	\$ 5,164,200	\$ 224,980	\$ (182,611)	\$ 5,206,569

The University has capitalized interest on borrowings, net of interest earned on related debt reserve funds, during the construction period of major capital projects. Capitalized interest is added to the cost of the underlying assets being constructed, and is amortized over the useful lives of the assets. For the years ended June 30, 2020 and 2019, the University capitalized net interest costs of \$5.9 million and \$8.7 million, respectively.

8. Public Private Partnerships and Leases

Public Private Partnerships (PPPs)

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

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

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

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. 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 approximately one year following the completion of the project, the annual rental amount received by the Building Authority under the ground lease will be \$625.0 thousand, increasing by 3% every five years. The first ground lease payment is anticipated to be received in fiscal 2021.

The Dartmouth Project was financed with \$132.2 million of revenue bonds issued on November 14, 2018 (Series 2018 Bonds) by MassDevelopment pursuant to a Loan and Trust Agreement between MassDevelopment and PCER II. Neither the Building Authority, the University nor UMass Dartmouth 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.



Photos taken prior to COVID-19 social distancing practices

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

dining facility. The annual rent payable to PCER II by the Building Authority is \$1.00.

Management evaluated the applicability of relevant GASB guidance (including GASB 14, *The Financial Reporting Entity*, GASB 39, *Determining Whether Certain Organizations Are Component Units*, GASB 60, *Accounting for Financial Reporting for Service Concession Arrangements*, and GASB 61, *The Financial Reporting Entity: Omnibus*) against the underlying Boston and Dartmouth Project agreements and indentures and has concluded that the associated debt should not be recognized on the financial statements of the Building Authority or the University.

Capital leases

On October 27, 2009, the Building Authority entered into an agreement to lease its facility located on Morrissey Boulevard in Dorchester, Massachusetts to the Edward M. Kennedy Institute for the United States Senate ("EMKI"), a charitable corporation registered in the District of Columbia. The lease agreement provides for an initial term of ninety-nine years commencing in October 2009, and thereafter, at the option of EMKI, may be extended for two additional, 99-year periods.

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

On October 27, 2009, the Building Authority also entered into an agreement whereby the Building Authority sub-leased land, ground-leased to the Building Authority by the Commonwealth, to EMKI. The sublease agreement provides for an initial term of ninety-nine years commencing in October 2009, and thereafter, at the option of EMKI, may be extended for two additional, 99-year periods. At the time of signing, the Building Authority received payment of \$10.0 thousand in full payment of rent due for the initial term of the sublease.

Other leases

The Building Authority has executed long-term leases with the Commonwealth, acting by and through the Trustees of the Building Authority, covering the land on which facilities owned by the Building Authority are located on the University's campuses. These leases call for nominal annual payments to the Commonwealth. Certain of these leases renew automatically for subsequent five- or ten-year periods unless the Building Authority notifies the University that it does not wish to renew. Other leases require the Building Authority to notify the University of its desire to renew. As of June 30, 2020 and 2019, all leases with the Commonwealth were in good standing and any leases requiring action by the Building Authority during the year to facilitate their renewals were properly renewed.

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

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

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

The University leases certain equipment and facilities under operating leases with terms exceeding one year, which are cancelable at the University's option with 30-day notice. The rent expense related to these operating leases amounted to \$34.9 million and \$34.6 million for the years ended June 30, 2020 and 2019, respectively. The leases primarily relate to



Photos taken prior to COVID-19 social distancing practices

telecommunications, software, and co-generation systems. The University also leases space to third party tenants. During the years ended June 30, 2020 and 2019, the amount reported as rental income was \$24.7 million and \$25.2 million, respectively.

The following presents a schedule of future minimum payments under non-cancelable leases for the next five years and in subsequent five-year periods for the University as of June 30, 2020 (\$ in thousands):

Fiscal year end	Lessor (minimum lease payments to receive)				Lessee (minimum lease payments to pay)
	Direct financing lease	Operating leases		Total	
		PPPs	Other		
2021	\$ 5,066	\$ 1,338	\$ 12,971	\$ 19,375	\$ 23,902
2022	5,072	1,650	11,961	18,683	20,613
2023	5,073	1,650	9,798	16,521	19,469
2024	2,665	1,650	8,520	12,835	17,513
2025	5,002	1,650	8,104	14,756	16,944
2026-2030	25,387	8,334	30,134	63,855	87,268
2031-2035	25,921	8,431	27,443	61,795	40,011
2036-2040	23,695	8,530	452	32,677	82
2041-2045	8,879	8,632	-	17,511	-
2046-2050	-	8,737	-	8,737	-
2051-2055	-	8,846	-	8,846	-
2056-2060	-	5,199	-	5,199	-
2061-2065	-	2,628	-	2,628	-
Total payments	\$ 106,760	\$ 67,275	\$ 109,383	\$ 283,418	\$ 225,802
Less amounts representing interest:	(30,671)				
Net investment in direct financing lease	76,089				



Photos taken prior to COVID-19 social distancing practices

9. Long-Term Debt

The following table represents the outstanding long-term debt as of June 30, 2020, and the related activity during the fiscal year (\$ in thousands):

	Original borrowing	Maturity date	Interest rate	As of June 30, 2019	Additions	Reductions	As of June 30, 2020
Building authority							
Series 2008-A	\$ 26,580	2038	variable	\$ 17,120	\$ -	\$ (1,070)	\$ 16,050
Series 2008-1	232,545	2038	variable	154,480	-	(8,965)	145,515
Series 2009-2	271,855	2039	6.4-6.6%	16,945	-	-	16,945
Series 2009-3	28,570	2039	5.8-6.2%	24,480	-	(655)	23,825
Series 2010-1	118,985	2020	5.0%	31,055	-	(15,155)	15,900
Series 2010-2	430,320	2040	3.8-5.5%	430,320	-	-	430,320
Series 2010-3	3,005	2040	5.8%	2,615	-	(60)	2,555
Series 2011-1	135,040	2034	variable	123,540	-	(1,530)	122,010
Series 2011-2	101,700	2034	variable	93,955	-	(1,155)	92,800
Series 2013-1	212,585	2043	2.0-5.0%	188,675	-	(93,505)	95,170
Series 2013-2	71,970	2043	0.4-4.3%	60,530	-	(2,330)	58,200
Series 2013-3	24,640	2043	4.0-5.0%	24,240	-	(22,860)	1,380
Series 2014-1	293,890	2044	3.0-5.0%	291,890	-	(144,215)	147,675
Series 2014-2	14,085	2019	0.4-2.1%	2,905	-	(2,905)	-
Series 2014-3	67,635	2029	2.0-5.0%	54,555	-	(3,875)	50,680
Series 2014-4	157,855	2025	0.2-3.4%	61,600	-	(31,060)	30,540
Series 2015-1	298,795	2045	4.0-5.0%	298,795	-	-	298,795
Series 2015-2	191,825	2036	3.0-5.0%	186,075	-	(6,270)	179,805
Series 2017-1	165,130	2047	4.0-5.3%	165,130	-	-	165,130
Series 2017-2	19,510	2027	1.6-3.4%	18,065	-	(1,470)	16,595
Series 2017-3	187,680	2038	3.0-5.0%	178,945	-	(18,930)	160,015
Series 2018-1	37,650	2043	2.0-2.9%	37,650	-	-	37,650
Series 2019-1	208,725	2039	5.0%	208,725	-	-	208,725
Series 2020-1	200,840	2050	5.0%	-	200,840	-	200,840
Series 2020-2	129,830	2050	1.8-3.5%	-	129,830	-	129,830
Series 2020-3	319,345	2044	1.7-3.5%	-	319,345	-	319,345
Unamortized bond premium				184,172	57,147	(36,280)	205,039
				2,856,462	707,162	(392,290)	3,171,334
MHEFA/MDFA							
Series A	20,000	2030	variable	20,000	-	-	20,000
Series 2011	29,970	2034	2.5-4.0%	23,795	-	(23,795)	-
Unamortized bond premium				792	-	(792)	-
				44,587	-	(24,587)	20,000
WCCC MHEFA/MDFA							
Series 2005-D	99,325	2029	5.0-5.3%	495	-	(20)	475
Series 2011	10,495	2023	2.0-5.0%	4,995	-	(4,995)	-
Unamortized bond premium				428	-	(403)	25
				5,918	-	(5,418)	500
MDFA							
Clean renewable energy bonds	1,625	2027	3.50%	765	-	(96)	669
Total bonds payable				2,907,732	707,162	(422,391)	3,192,503
Notes and commercial paper				132,810	11,950	(143,274)	1,486
Capital lease obligations				1,836	1,095	(742)	2,189
Total long-term debt				\$3,042,378	\$ 720,207	\$ (566,407)	\$3,196,178

The following table represents the outstanding long-term debt as of June 30, 2019, and the related activity during the fiscal year (\$ in thousands):

	Original borrowing	Maturity date	Interest rate	As of June 30, 2018	Additions	Reductions	As of June 30, 2019
Building authority							
Series 2008-A	\$ 26,580	2038	variable	\$ 18,150	\$ -	\$ (1,030)	\$ 17,120
Series 2008-1	232,545	2038	variable	163,115	-	(8,635)	154,480
Series 2009-1	247,810	2039	3.0-5.0%	15,285	-	(15,285)	-
Series 2009-2	271,855	2039	6.4-6.6%	271,855	-	(254,910)	16,945
Series 2009-3	28,570	2039	5.8-6.2%	25,100	-	(620)	24,480
Series 2010-1	118,985	2020	5.0%	45,485	-	(14,430)	31,055
Series 2010-2	430,320	2040	3.8-5.5%	430,320	-	-	430,320
Series 2010-3	3,005	2040	5.8%	2,675	-	(60)	2,615
Series 2011-1	135,040	2034	variable	124,990	-	(1,450)	123,540
Series 2011-2	101,700	2034	variable	95,055	-	(1,100)	93,955
Series 2013-1	212,585	2043	2.0-5.0%	193,745	-	(5,070)	188,675
Series 2013-2	71,970	2043	0.4-4.3%	62,825	-	(2,295)	60,530
Series 2013-3	24,640	2043	4.0-5.0%	24,640	-	(400)	24,240
Series 2014-1	293,890	2044	3.0-5.0%	292,490	-	(600)	291,890
Series 2014-2	14,085	2019	0.4-2.1%	5,750	-	(2,845)	2,905
Series 2014-3	67,635	2029	2.0-5.0%	58,160	-	(3,605)	54,555
Series 2014-4	157,855	2025	0.2-3.4%	92,095	-	(30,495)	61,600
Series 2015-1	298,795	2045	4.0-5.0%	298,795	-	-	298,795
Series 2015-2	191,825	2036	3.0-5.0%	189,000	-	(2,925)	186,075
Series 2017-1	165,130	2047	4.0-5.3%	165,130	-	-	165,130
Series 2017-2	19,510	2027	1.6-3.4%	19,510	-	(1,445)	18,065
Series 2017-3	187,680	2038	3.0-5.0%	184,760	-	(5,815)	178,945
Series 2018-1	75,000	2043	2.0-2.9%	37,650	-	-	37,650
Series 2019-1	208,725	2039	5.0%	-	208,725	-	208,725
Unamortized bond premium				150,699	47,633	(14,160)	184,172
				2,967,279	256,358	(367,175)	2,856,462
MHEFA/MDFA							
Series A	20,000	2030	variable	20,000	-	-	20,000
Series 2011	29,970	2034	2.5-4.0%	24,880	-	(1,085)	23,795
Unamortized bond premium				817	-	(25)	792
				45,697	-	(1,110)	44,587
WCCC MHEFA/MDFA							
Series 2005-D	99,325	2029	5.0-5.3%	615	-	(120)	495
Series 2011	10,495	2023	2.0-5.0%	5,860	-	(865)	4,995
Unamortized bond premium				526	-	(98)	428
				7,001	-	(1,083)	5,918
MDFA							
Clean renewable energy bonds	1,625	2027	3.50%	860	-	(95)	765
Total bonds payable				3,020,837	256,358	(369,463)	2,907,732
Notes and commercial paper				65,969	69,061	(2,220)	132,810
Capital lease obligations				2,262	255	(681)	1,836
Total long-term debt				\$3,089,068	\$ 325,674	\$ (372,364)	\$3,042,378

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, 2020, on long-term debt for the next five fiscal years and in subsequent five-year periods are as follows (\$ in thousands):

Fiscal year	Bonds			Direct placement bonds		Total
	Principal	Interest	Interest subsidy*	Principal	Interest	
2021	\$ 107,305	\$ 127,922	\$ (7,543)	\$ -	\$ 763	\$ 228,447
2022	102,265	123,848	(7,439)	-	763	219,437
2023	106,530	119,747	(7,224)	-	763	219,816
2024	111,235	115,585	(6,993)	1,655	754	222,236
2025	100,710	111,440	(6,729)	1,690	718	207,829
2026-2030	547,951	487,868	(29,222)	8,480	3,573	1,018,650
2031-2035	582,150	358,774	(20,318)	8,785	3,244	932,635
2036-2040	631,040	216,551	(8,891)	10,175	1,846	850,721
2041-2045	482,035	84,257	(258)	6,865	344	573,243
2046-2050	154,480	19,711	-	-	-	174,191
2051-2055	24,088	507	-	-	-	24,595
Total	\$ 2,949,789	\$ 1,766,210	\$ (94,617)	\$ 37,650	\$ 12,768	\$ 4,671,800

* These interest rate subsidies are provided by the United States Government related to the University's issuance of bonds under the Build America Bond ("BAB") program. Under the BAB program, the Government provides a direct subsidy of the interest rate paid to bondholders up to 35%. For Fiscal Year 2021 through 2041, the estimated subsidy reflected in the table above is 32.9%.

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

The University has standby purchase agreements with Barclays Bank PLC (Barclays) for the 2008-1 and 2008-A bonds which requires Barclays to purchase bonds that are tendered and not remarketed. These agreements were extended until July 6, 2022. Fees incurred under the agreements related to the bonds totaled \$531.8 thousand and \$553.0 thousand for the years ended June 30, 2020 and 2019, respectively.

The University has standby purchase agreement with Wells Fargo Bank, N.A. (Wells) for the 2011-1 bonds which requires Wells to purchase bonds that are tendered and not remarketed. This agreement was extended until July 9, 2022. Fees incurred under the agreements related to the bonds totaled \$421.7 thousand and \$425.7 thousand for the years ended June 30, 2020 and 2019, respectively.

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

Bond Refundings – In FY2020, the University issued \$319.3 of Senior Series 2020-3 bonds, which advanced refunded \$22.7 million of Series 2011 and \$4.1 million of Series 2011 bonds. The Series 2020-3 bonds also refunded \$88.3 million of the University's 2013-1 bonds, \$22.4 million of the University's 2013-3 bonds, and \$143.5 million of the University's 2014-1 bonds. These advanced refunded bonds are considered defeased and, accordingly, the liability for the bonds payable and the assets

held to repay the debt are not recorded on the University's financial statements. The total loss on refunding was \$16.4 million with cash flow savings of \$35.5 million.

As of June 30, 2020, approximately \$281 million of bonds outstanding from advance refunding activities is considered defeased.

In FY2019, the University issued \$208.7 million of Refunding Revenue Senior Series 2019-1 Bonds which partially refunded the 2009-2 Senior Series Building America Bonds. This transaction was a current refunding.

Other Current Year Debt Activity – In FY2020, the University issued \$330.67 million of Senior Series 2020-1 and 2020-2 Project Revenue bonds.

Bond Premium – In FY2020, the University received premiums at issuance totaling \$57.1 million. Premiums received are amortized as a reduction of interest expense over the life of the respective bond issue. In FY2019, the University received premiums at issuance totaling \$47.6 million.

Commercial Paper – The maximum aggregate principal amount of commercial paper the University may have outstanding at one time is \$200.0 million. The University's Series 2013-A are secured by standby liquidity facility agreement that expires on August 12, 2022. The Series 2013-B are secured by a standby liquidity facility agreement that expires on August 12, 2022.

During FY2020 and FY2019, the University issued \$10.5 million and \$69.1 million of commercial paper, respectively. As of June 30, 2020 and 2019, the University had an outstanding commercial paper balance of \$0 and \$131.9 million, respectively. The University incurred total fees of \$0.7 million in FY2020 and FY2019, respectively, associated with the use of commercial paper.

Interest Rate Swaps – The University uses derivative instruments to manage the impact of interest rate changes on its cash flows and net position by mitigating its exposure to certain market risks associated with operations, and does not use derivative instruments for trading or speculative purposes.

The University's contracts are evaluated pursuant to GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments* ("GASB No. 53") to determine whether they meet the definition of derivative instruments, and if so, whether they effectively hedge the expected cash flows associated with interest rate risk exposures. The University applies hedge accounting for derivative instruments that are deemed effective hedges and under GASB No. 53 are referred to as hedging derivative instruments. Under hedge accounting, changes in the fair value of a hedging derivative instrument are reported as a deferred inflow or deferred outflow in the Statement of Net Position until the contract is settled or terminated.

All settlement payments or receipts for hedging derivative instruments are recorded as interest expense in the period settled.

Interest rate swap liabilities at June 30, 2020 and 2019 are as follows (\$ in thousands):

	Notional value	As of June 30, 2019	Net change	As of June 30, 2020	Effective date	Term date	Authority pays	Authority receives
Series 2008-1	\$ 145,515	\$ 23,308	\$ 8,760	\$ 32,068	05/01/08	05/01/38	3.39%	70% of 1-Month LIBOR
Series 2008-A	16,050	2,720	1,075	3,795	11/13/08	05/01/38	3.38%	70% of 1-Month LIBOR
Series 2006-1	214,810	29,594	7,524	37,118	04/20/06	11/01/34	3.48%	60% of 3-Month LIBOR + .18%
Total		\$ 55,622	\$ 17,359	\$ 72,981				

Swap Payments and Associated Debt – Using rates as of June 30, 2020, the debt service requirements of the variable-rate debt and net swap payments, assuming current interest rates remain the same for their term, were as follows (\$ in thousands):

Fiscal year ending June 30	Principal	Interest	Interest rate swaps, net	Total
2021	\$ 28,390	\$ 7,000	\$ 11,712	\$ 47,102
2022	29,545	6,453	10,799	46,797
2023	33,915	5,855	9,798	49,568
2024	35,200	5,204	8,710	49,114
2025	28,625	4,602	7,703	40,930
2026–2030	148,230	14,489	24,257	186,976
2031–2035	70,085	3,329	5,574	78,988
2036–2040	2,385	94	158	2,637
Total	\$ 376,375	\$ 47,026	\$ 78,711	\$ 502,112

10. Other Liabilities

The following table shows current and long-term portions of other liabilities as recorded in the Statements of Net Position (\$ in thousands).

	As of June 30, 2019	Current portion as of June 30, 2019	As of June 30, 2020	Current portion as of June 30, 2020
Compensated absences*	\$ 107,398	\$ 81,155	\$ 113,892	\$ 88,722
Workers' compensation*	13,850	2,882	13,256	2,550
Unearned revenues	88,863	54,946	135,816	91,037
Advances and deposits	34,135	6,394	19,988	5,238
Other liabilities	147,872	70,458	170,827	60,557

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

11. Fringe Benefits

During the years ended June 30, 2020 and 2019, the Commonwealth paid \$383.5 million and \$380.4 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 \$142.2 million and \$149.1 million during the years ended June 30, 2020 and 2019, respectively. The remaining portion is included in revenue as state appropriations.

12. Benefit Plans

Defined benefit plan

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

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

length of creditable service, and group creditable service, and group classification. The authority for amending these provisions rests with the Legislature.

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

Member contributions for MSERS vary depending on the most recent date of membership:

Hire date	% of Compensation
Prior to 1975	5% of regular compensation
1975 – 1983	7% or 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 \$134.8 million and \$125.5 million for the years ended June 30, 2020 and 2019, respectively. Annual covered payroll was 78% and 77.4% of annual total payroll for the University for the years ended June 30, 2020 and 2019, 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, 2020 was determined based on a measurement date of June 30, 2019 from an actuarial valuation as of January 1, 2019 rolled forward to June 30, 2019. The net pension liability measured as of June 30, 2019 was determined based on a measurement date of June 30, 2018 from an actuarial valuation as of January 1, 2018 rolled forward to June 30, 2018. 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, 2020 and 2019, the University reported a liability of \$526.7 million and \$409.3 million, respectively, for its proportionate share of MSERS net pension liability, respectively. The University's proportion of the net pension liability was based on a projection of the University's long-term share of contributions to the pension plan relative to the total projected contributions of all participating entities, actuarially determined. The University's proportion of the pension plan at measurement dates of June 30, 2019 and 2018 was 3.60% and 3.09%, respectively.

For the fiscal years ended June 30, 2020 and 2019, the University recognized pension expense of \$93.2 million and \$52.2 million, respectively.

The University reported its proportionate share of MSERS's deferred outflows of resources and deferred inflows of resources related to pensions from the following sources as of June 30, 2020 and 2019 (\$ in thousands):

	2020		2019	
	Deferred outflows of resources	Deferred inflows of resources	Deferred outflows of resources	Deferred inflows of resources
Changes of assumptions	\$ 39,043	\$ -	\$ 41,482	\$ -
Changes in proportion due to internal allocation	59,974	25,043	22,245	37,534
Employer contributions after measurement date	40,617	-	35,843	-
Differences between expected and actual experience	17,493	6,851	12,980	8,342
Net difference between projected and actual investment earnings on pension plan investments	-	7,857	-	14,228
Changes in proportion from Commonwealth	930	27	1,104	78
Total	\$ 158,057	\$ 39,778	\$ 113,654	\$ 60,182

Amounts reported as deferred outflows of resources relating to pension resulting from the University's contributions subsequent to the measurement date will be recognized as a reduction to pension expense in the net pension liability in the year 2021. The remaining difference between the University's balances of deferred outflows and inflows of resources related to pension liability will be recognized in pension expense as follows:

Year ended June 30	
2021	\$ 28,626
2022	8,066
2023	15,870
2024	16,914
2025	8,186
Total	\$ 77,662

Actuarial Assumptions – Significant actuarial assumptions used at each respective measurement date are as follows:

	June 30, 2019	June 30, 2018
Investment rate of return	7.25%	7.35%
Interest rate credited to the annuity savings fund	3.50%	3.50%
Cost of living increases on the first \$13,000 per year	3.00%	3.00%
Salary increases*	4.0% to 9.0%	4.0% to 9.0%
Mortality rates:		
Pre-retirement	RP-2014 Blue Collar Employees Scale MP-2016 **	RP-2014 Blue Collar Employees Scale MP-2016 **
Post-retirement	RP-2014 Blue Collar Healthy Annuitant Scale MP-2016 **	RP-2014 Blue Collar Healthy Annuitant Scale MP-2016 **
Disability	RP-2014 Blue Collar Healthy Annuitant Scale MP-2016 **	RP-2014 Blue Collar Healthy Annuitant Scale MP-2016 **

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

** Set forward one year for females.

Investment Allocation – Investment assets of MSERS are with the Pension Reserves Investment Trust (PRIT) Fund. The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future rates of return by the target asset allocation percentage.

Best estimates of geometric rates of return for each major asset class included in the PRIT Fund's target asset allocation as of June 30, 2019 and 2018 are summarized in the following table:

Asset class	June 30, 2019		June 30, 2018	
	Target allocation	Long-term expected real rate of return	Target allocation	Long-term expected real rate of return
Global equity	39.00%	4.90%	39.00%	5.00%
Portfolio completion strategies	11.00%	3.90%	13.00%	3.70%
Core fixed income	15.00%	1.30%	12.00%	0.90%
Private equity	13.00%	8.20%	12.00%	6.60%
Real estate	10.00%	3.60%	10.00%	3.80%
Value added fixed income	8.00%	4.70%	10.00%	3.80%
Timber / natural resources	4.00%	4.10%	4.00%	3.40%
Total	100.00%		100.00%	

Discount Rate – The discount rate used to measure the total pension liability was 7.25% and 7.35% at June 30, 2019 and 2018, 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.

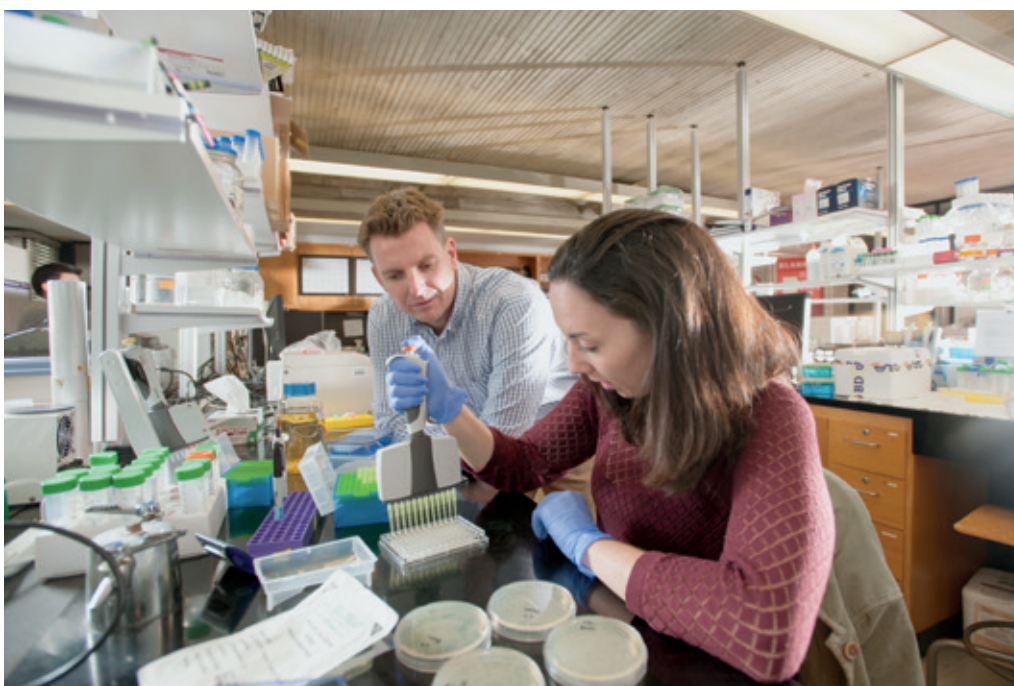
Sensitivity Analysis – The following illustrates the impact of a 1% change in the discount rate for the net pension liability at June 30, 2020 and 2019 (\$ in thousands):

Fiscal year ended	1% Decrease	Current discount rate	1% Increase
June 30, 2020	\$ 701,230	\$ 526,739	\$ 377,816
June 30, 2019	551,694	409,319	287,666

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, 2020 and 2019, there were 2,129 and 2,011 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 \$8.0 million and \$7.8 million in 2020 and 2019, respectively. University employees contributed \$19.3 million and \$18.8 million in 2020 and 2019, respectively.

The MSERS and ORP retirement contributions of employees who become members of MSERS or ORP after January 1, 2011 are subject to a state compensation limit. Effective January 1, 2011, the University established a defined contribution plan, the University of Massachusetts 401(a) Retirement Gap Plan (Gap Plan). Employees with MSERS or ORP membership dates after January 1, 2011 are eligible to participate in for the Gap Plan. Eligible employees begin participation in the Gap Plan when their regular compensation exceeds the state compensation limit in effect for the plan year, at which point their contributions to MSERS or ORP are required to stop for the remainder of the plan year. Employee contributions to the Gap Plan are mandatory and at the same rate as MSERS and ORP; the University contributes 5%. As of June 30, 2020 and 2019, the plan assets of the Gap Plan were \$6.2 million and \$4.7 million, respectively.



Photos taken prior to COVID-19 social distancing practices

13. Other Postemployment Benefits

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

Benefits Provided – Under Chapter 32A of the MGL the Commonwealth is required to provide certain health care and life insurance benefits for retired employees of the Commonwealth. Substantially all of the Commonwealth's employees may become eligible for these benefits if they reach retirement age while working for the Commonwealth. Eligible retirees are required to contribute a specified percentage of the health care/benefit costs, which are comparable to contributions required from employees.

Employer and employee contribution rates are set in MGL. The Commonwealth recognizes its share of the costs on an actuarial basis. As of June 30, 2020 and 2019, the retirees' share of premium costs is between 0% – 20%, depending on the date of hire.

As noted in Note 1, the University recorded an immaterial correction to its previously reported financial statements to properly reflect its fiscal year 2019 proportionate share of activity related to post-employment benefits in accordance with GASB 75. The below information has been updated to reflect the University's 2019 information as corrected.

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, 2020 was determined based on a measurement date of June 30, 2019 from an actuarial valuation as of January 1, 2019 rolled forward to June 30, 2019. The total OPEB liability as of June 30, 2019 was determined based on a measurement date of June 30, 2018 from an actuarial valuation as of January 1, 2018 rolled forward to June 30, 2018. 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, 2020 and 2019, the University reported a liability of \$993.0 million and \$895.7 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, 2019 and 2018 was 5.43% and 4.82%, respectively.

For the fiscal years ended June 30, 2020 and 2019, the University recognized OPEB expense of \$96.9 million and \$75.1 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, 2020 and 2019, respectively (\$ in thousands):

	2020		2019	
	Deferred outflows of resources	Deferred inflows of resources	Deferred outflows of resources	Deferred inflows of resources
Changes of assumptions	\$ 764	\$ 149,320	\$ 858	\$ 75,539
Changes in proportion due to internal allocation	174,758	-	100,687	-
Employer contributions after measurement date	21,040	-	26,137	-
Differences between expected and actual experience	39,824	1,272	8,732	1,535
Net difference between projected and actual investment earnings on OPEB plan investments	-	457	-	1,795
Changes in proportion from Commonwealth	2,421	-	2,310	-
Total	\$ 238,807	\$ 151,049	\$ 138,724	\$ 78,869

Amounts reported as deferred outflows of resources relating to OPEB resulting from the University's contributions subsequent to the measurement date will be recognized as a reduction to OPEB expense in the net OPEB liability in the year 2021. The remaining difference between the University's balances of deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Year ended June 30	
2021	\$ 2,860
2022	2,860
2023	8,102
2024	25,897
2025	26,999
	\$ 66,718

Actuarial Assumptions – Significant actuarial assumptions used at the 2019 measurement date are as follows:

Long-term rate of return on investment	7.25%														
Annual healthcare cost trend rates															
Medical	7.5% decreasing by 0.5% each year to 5.5% in 2023 and 2024 and then decreasing 0.5% each year to an ultimate rate of 4.5% in 2026 for medical and 4.5% for administration costs														
Employer group waiver program	5% per year until 2025, then decrease to 4.5% in 2026														
Administrative costs	4.5%														
Mortality rates	RP-2014 Blue Collar Employees projected with Scale MP-2016 with females set forward one year														
Participation rates	100% of all retirees who currently have health care coverage will continue the same coverage, except the following: <ul style="list-style-type: none"> • retirees under the age of 65 with POS/PPO coverage switch to Indemnity at age 65 • retirees over the age of 65 with POS/PPO coverage switched to HMO Current retirees and spouses - Medicare coverage upon attainment of age 65 Future retirees - Medicare coverage upon attainment of age 65 85% of current and future contingent eligible participants will elect health care benefits at 55 or later Actives, upon retirement, take coverage, and are assumed to have the following coverage:														
	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Retirement age</th> </tr> <tr> <th>Under 65</th> <th>Over 65</th> </tr> </thead> <tbody> <tr> <td>Indemnity</td> <td>25.0%</td> <td>85.0%</td> </tr> <tr> <td>POS/PPO</td> <td>60.0%</td> <td>0.0%</td> </tr> <tr> <td>HMO</td> <td>15.0%</td> <td>15.0%</td> </tr> </tbody> </table>		Retirement age		Under 65	Over 65	Indemnity	25.0%	85.0%	POS/PPO	60.0%	0.0%	HMO	15.0%	15.0%
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	Under 65	Over 65													
Indemnity	25.0%	85.0%													
POS/PPO	60.0%	0.0%													
HMO	15.0%	15.0%													

Significant actuarial assumptions used at the 2018 measurement date are as follows:

Long-term rate of return on investment	7.35%														
Annual healthcare cost trend rates															
Medical	8.0% decreasing by 0.5% each year to an ultimate rate of 5.5% in 2023 and then decreasing 0.25% each year to an ultimate rate of 5.0% in 2025 for medical and 5.0% for administration costs														
Employer group waiver program	5.0%														
Administrative costs	5.0%														
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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, 2019 and 2018 are summarized in the following table:

Asset class	June 30, 2019		June 30, 2018	
	Target allocation	Long-term Expected real rate of return	Target allocation	Long-term Expected real rate of return
Global equity	39.00%	4.90%	39.00%	5.00%
Portfolio completion strategies	11.00%	3.90%	13.00%	3.70%
Core fixed income	15.00%	1.30%	12.00%	0.90%
Private equity	13.00%	8.20%	12.00%	6.60%
Real estate	10.00%	3.60%	10.00%	3.80%
Value added fixed income	8.00%	4.70%	10.00%	3.80%
Timber / natural resources	4.00%	4.10%	4.00%	3.40%
Total	100.00%		100.00%	

Discount Rate – The discount rates used to measure the total OPEB liability as of June 30, 2019 and 2018 were 3.63% and 3.95%, respectively. These rates were based on a blend of the Bond Buyer Index rates of 3.51% and 3.87%, respectively, as of the measurement dates June 30, 2019 and 2018 and the long term rate of return on Plan investments of 7.25% and 7.35%, 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 2025. 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, 2019 and 2018.

Sensitivity Analysis of Discount – The following 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):

Fiscal year ended	1% Decrease	Current discount	1% Increase
June 30, 2019	\$ 1,185,311	\$ 992,991	\$ 840,934
June 30, 2018	1,064,665	895,669	761,603

Sensitivity Analysis of Healthcare Cost Trend Rate – The following 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):

Fiscal year ended	1% Decrease	Current rate	1% Increase
June 30, 2019	\$ 818,350	\$ 992,991	\$ 1,223,411
June 30, 2018	757,659	895,669	1,070,136

14. Operating Expenses and Interest

The following table summarizes the University’s operating expenses and interest by natural and functional classification for the year ended June 30, 2020 (\$ in thousands):

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

The following table summarizes the University's operating expenses and interest by natural and functional classification for the year ended June 30, 2019 (\$ in thousands):

	Compensation and benefits	Supplies and services	Scholarships and fellowships	Depreciation and amortization	Interest	Total
Educational and general						
Instruction	\$ 786,720	\$ 125,695	\$ -	\$ -	\$ -	\$ 912,415
Research	285,202	205,685	-	-	-	490,887
Public service	70,593	15,658	-	-	-	86,251
Academic support	136,738	49,764	-	-	-	186,502
Student services	120,926	39,825	-	-	-	160,751
Institutional support	187,274	87,052	-	-	-	274,326
Operation and maintenance of plant	121,825	126,756	-	-	-	248,581
Depreciation and amortization	-	-	-	276,638	-	276,638
Scholarships and fellowships	-	-	49,511	-	-	49,511
Auxiliary enterprises	156,607	183,739	-	-	-	340,346
Other expenditures						
Independent operations	24,904	23,378	-	-	-	48,282
Public service activities	84,774	142,047	-	-	-	226,821
Total operating expenses	1,975,563	999,599	49,511	276,638	-	3,301,311
Interest on indebtedness	-	-	-	-	116,217	116,217
Total operating expenses and interest	\$ 1,975,563	\$ 999,599	\$ 49,511	\$ 276,638	\$ 116,217	\$ 3,417,528

15. Unrestricted Net Position

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

- **Unexpended plant and facilities** – funds designated for capital projects, equipment and the major renovations of all existing buildings including research, education and general, and auxiliary.
- **Auxiliary enterprises** – funds related to self-supporting activities which provide non-instructional support in the form of goods and services to students, faculty, and staff upon payment of a specific user charge or fee.
- **Education and general** – funds designated for operational requirements, academic initiatives, research, faculty recruitment, and University initiatives.
- **Quasi-endowment** – funds related to unrestricted resources invested in the Foundation's pooled endowment fund, intended to be invested for the long-term unless otherwise approved by the Board of Trustees or a designated authority.
- **Stabilization** – funds designated to provide budgetary stabilization for operations due to unforeseen and/or uncontrollable circumstances to ensure responsible long-term financial stability. Funds should be used for an unanticipated one-time disruption in funding or catastrophic event and shall not be used to cover operating shortfalls that could have been anticipated and managed.
- **Other unrestricted** – funds undesignated for a specific use or purpose.

The following table summarizes the University's unrestricted net position as of June 30, 2020 and 2019 (\$ in thousands):

	2020	2019
Unrestricted resources		
Unexpended plant and facilities	\$ 222,495	\$ 255,308
Auxiliary enterprises	67,459	100,154
Education and general	420,012	309,452
Quasi-endowment	355,174	352,743
Stabilization	124,889	114,594
Other unrestricted	(65,957)	(46,720)
Subtotal	1,124,072	1,085,531
Unfunded portion of pension liabilities	(408,460)	(355,847)
Unfunded portion of postretirement benefits other than pension liabilities	(905,233)	(835,814)
Total unrestricted net position	\$ (189,621)	\$ (106,130)

16. Commitments and Contingencies

The Building Authority, University, and WCCC have outstanding purchase commitments under construction contracts and real estate agreements of \$111.9 million and \$200.0 million at June 30, 2020 and 2019, 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, 2020 and 2019 of \$42.1 million and \$43.3 million, respectively.

The University, as an agency of the Commonwealth, is self-insured for property loss exposure, subject to appropriation from the state legislature. However, properties owned by the Building Authority located on a campus of the University, such as the Mullins Center, dining commons, and most dormitories, are insured by the Building Authority. The University and its employees are protected against tort claims through sovereign immunity under Chapter 258 of the Massachusetts General Laws. The University maintains certain liability insurance policies, including commercial general liability, leased automotive liability, directors and officers and comprehensive crime policies. Employees of the University are covered for worker's compensation protection under Chapter 152 of the Massachusetts General Laws. The University has recorded a liability for future expected costs of its workers' compensation claims of \$13.3 million and \$13.9 million as of June 30, 2020 and 2019, respectively. Estimated future payments related to such costs have been discounted at a rate of 4%. Refer to Note 10 for further information on worker's compensation balances year over year.

On June 28, 2019, the Authority entered into an agreement to lease property located at 200 Mount Vernon Street in Dorchester, Massachusetts to Bayside Property Owner, LLC ("Bayside"), a Delaware limited liability company. The developer plans to build a mixed-use urban innovation campus at the site. Bayside deposited \$7.0 million into an escrow account on July 2, 2019. In June 2020, Bayside deposited an additional \$1.0 million into an escrow account in order to extend the agreement. These funds will be applied to the initial fixed rent payment at closing. Under the terms of the agreement, the developer, subject to certain contingencies, may enter into a 99-year ground lease for an upfront payment of up to \$235 million, with a minimum lease price of \$192 million. The agreement provides a 60-day inspection period during which the developer could terminate the agreement for any reason. The developer can extend the term of the agreement up to four consecutive periods of six months each. Additionally, the Authority has the ability to terminate the agreement at any time via its default provision.

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

17. Blended Component Units

Condensed information for the University's blended component units, the Building Authority and WCCC, is presented below as of June 30, 2020 (\$ in thousands). The UMAF and UMMSF are not material in relation to the other blended component units nor the University as a whole and are therefore not presented in the below condensed information.

	June 30, 2020			
	Building Authority	Eliminations	WCCC	Eliminations
Condensed information from the Statements of Net Position				
Capital assets, net	\$ 3,721,176	\$ -	\$ 332,596	\$ -
Other assets	752,153	(68,481)	184,611	(2,595)
Deferred outflows	125,965	-	6,660	-
Total assets and deferred outflows	4,599,294	(68,481)	523,867	(2,595)
Debt, including commercial paper	3,171,334	-	331,422	-
Other liabilities	175,480	(4,180)	19,170	(2,595)
Total liabilities	3,346,814	(4,180)	350,592	(2,595)
Total net position	\$ 1,252,480	\$ (64,301)	\$ 173,275	\$ -
Condensed information from the Statements of Revenues, Expenses, and Changes in Net Position				
Other revenues	\$ 295,892	\$ (126,525)	\$ 78,493	\$ (50,800)
Total revenues	295,892	(126,525)	78,493	(50,800)
Operation and maintenance of capital assets	9,470	(11,404)	27,689	(24,108)
Depreciation	150,808	-	20,350	-
Interest expense	110,990	(86,372)	8,003	-
Other expenses	6,609	(3,100)	16,217	(26,692)
Total expenses	277,877	(100,876)	72,259	(50,800)
Increase in net position	\$ 18,015	\$ (25,649)	\$ 6,234	\$ -
Condensed information from the Statements of Cash Flows				
Net cash provided by operating activities	\$ 200,605	\$ -	\$ 28,714	\$ -
Net cash provided by (used in) investing activities	3,126	-	(17,418)	-
Net cash (used in) provided by financing activities	(81,154)	-	(9,613)	-
Change in cash and cash equivalents	\$ 122,577	\$ -	\$ 1,683	\$ -

Condensed information for the University's blended component units, the Building Authority and WCCC, is presented below as of June 30, 2019 (\$ in thousands):

	June 30, 2019			
	Building Authority	Eliminations	WCCC	Eliminations
Condensed information from the Statements of Net Position				
Capital assets, net	\$ 3,671,005	\$ -	\$ 332,002	\$ -
Other assets	624,776	(44,329)	96,219	(1,732)
Deferred outflows	95,954	-	7,429	-
Total assets and deferred outflows	4,391,735	(44,329)	435,650	(1,732)
Debt, including commercial paper	2,988,872	(462)	38,472	-
Other liabilities	168,398	(5,215)	230,137	(1,732)
Total liabilities	3,157,270	(5,677)	268,609	(1,732)
Total net position	\$ 1,234,465	\$ (38,652)	\$ 167,041	\$ -
Condensed information from the Statements of Revenues, Expenses, and Changes in Net Position				
Other revenues	\$ 281,311	\$ (99,228)	\$ 82,675	\$ (52,597)
Total revenues	281,311	(99,228)	82,675	(52,597)
Operation and maintenance of capital assets	8,600	(5,004)	28,871	(23,941)
Depreciation	140,771	-	19,857	-
Interest expense	118,213	(89,431)	7,866	-
Other expenses	3,875	(2,688)	17,514	(28,656)
Total expenses	271,459	(97,123)	74,108	(52,597)
Increase in net position	\$ 9,852	\$ (2,105)	\$ 8,567	\$ -
Condensed information from the Statements of Cash Flows				
Net cash provided by operating activities	\$ 201,430	\$ -	\$ 22,340	\$ -
Net cash provided by (used in) investing activities	7,849	-	(11,733)	-
Net cash (used in) provided by financing activities	(299,183)	-	(10,270)	-
Change in cash and cash equivalents	\$ (89,904)	\$ -	\$ 337	\$ -

18. Discretely Presented Component Units

As described in Note 1, UMF and UMDF are discretely presented component units. These Foundations are presented in the aggregate on page 22 of these financial statements. Following is supplemental information on UMF's non-agency investments, which is not included in its entirety elsewhere in these financial statements.

This note excludes agency funds held with the Foundation that are not the University's in the amount of \$24.4 million and \$25.1 million as of June 30, 2020 and 2019. UMF's investment portfolio represents approximately 96.8% of the aggregate discretely presented component units. This note does not include investment information for UMDF given the immaterial nature of UMDF's balances and activities.

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

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

Concentration of Credit Risk – As of June 30, 2020 and 2019, there is no concentration of investments from one issuer equal or greater than 5% of the portfolio. Investments issued or guaranteed by the U.S. government, as well as investments in mutual funds and other pooled investments are excluded from consideration when evaluating concentration risk.

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

The table below presents the unrated debt investments at fair value by credit quality of UMF's non-agency investment portfolio as of June 30, 2020 (\$ in thousands):

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

The table below presents the unrated debt investments at fair value by credit quality of UMF's non-agency investment portfolio as of June 30, 2019 (\$ in thousands):

	2019	S&P rating
Debt securities		
U.S. Treasury securities	\$ 36,422	AAA
Total debt securities	\$ 36,422	

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.

The following table presents the fair value by investment maturity of the unrated debt investments of UMF's non-agency investment portfolio as of June 30, 2020 (\$ in thousands):

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

The following table presents the fair value by investment maturity of the unrated debt investments of UMF's non-agency investment portfolio as of June 30, 2019 (\$ in thousands):

	2019	Investment maturity
Debt securities		
U.S. Treasury securities	\$ 36,422	1 to 5 years
Total debt securities	\$ 36,422	

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.

The following table summarizes the fair value of UMF’s non-agency investments by type as of June 30, 2020 (\$ in thousands):

	Investments measured at NAV	Investments classified in the fair value hierarchy			
		Level 1	Level 2	Level 3	Total
Money market funds	\$ -	\$ 63,877	\$ -	\$ -	\$ 63,877
Debt securities					
U.S. Treasury securities	-	32,198	-	-	32,198
Total debt securities	-	32,198	-	-	32,198
Equity securities					
Domestic equities	-	75,023	-	-	75,023
International equities	-	34,513	-	-	34,513
Total equity securities	-	109,536	-	-	109,536
Alternative investments					
Multi-strategy hedge funds					
Equity	147,388	-	-	-	147,388
Long/short	119,095	-	-	-	119,095
Fixed income	28,061	-	-	-	28,061
Absolute return	25,550	-	-	-	25,550
Real assets	7,679	-	-	-	7,679
Private equity	36,775	-	-	-	36,775
Private debt	11,347	-	-	-	11,347
Private real estate	10,578	-	-	-	10,578
Annuity & Life Income Pooled Funds	2,989	-	-	-	2,989
Total alternative investments	389,462	-	-	-	389,462
Total investments	\$ 389,462	\$ 205,611	\$ -	\$ -	\$ 595,073



Photos taken prior to COVID-19 social distancing practices

The following table summarizes the fair value of UMF's non-agency investments by type as of June 30, 2019 (\$ in thousands):

	Investments measured at NAV	Investments classified in the fair value hierarchy			
		Level 1	Level 2	Level 3	Total
Money market funds	\$ -	\$ 45,865	\$ -	\$ -	\$ 45,865
Debt securities					
U.S. Treasury securities	-	36,422	-	-	36,422
Total debt securities	-	36,422	-	-	36,422
Equity securities					
Domestic equities	-	97,129	-	-	97,129
International equities	-	77,862	-	-	77,862
Total equity securities	-	174,991	-	-	174,991
Alternative investments					
Multi-strategy hedge funds					
Equity	90,962	-	-	-	90,962
Long/short	83,234	-	-	-	83,234
Fixed income	37,601	-	-	-	37,601
Absolute return	26,540	-	-	-	26,540
Real assets	7,807	-	-	-	7,807
Private equity	23,409	-	-	-	23,409
Private debt	18,020	-	-	-	18,020
Private real estate	9,519	-	-	-	9,519
Annuity & Life Income Pooled Funds	3,472	-	-	-	3,472
Total alternative investments	300,564	-	-	-	300,564
Other securities	-	14,669	-	-	14,669
Total investments	\$ 300,564	\$ 271,947	\$ -	\$ -	\$ 572,511

The following table presents unfunded commitments, redemption frequency and notice period for non-agency investments that have been valued using NAV as a practical expedient as of June 30, 2020 (\$ in thousands):

	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Alternative investments					
Multi-strategy hedge funds					
Equity	\$ 147,388	\$ -	daily to quarterly	01-90 days	Lock-up provisions range from none to 2 years
Long/short	119,095	-	quarterly to annual	45-90 days	Lock-up provisions range from none to 3 years
Fixed income	28,061	-	quarterly	(2)	Lock-up provisions range from none to 1 year
Absolute return	25,550	-	quarterly to annual	45-65 days	No lock-up restrictions
Real assets	7,679	-	annual	90 days	No lock-up restrictions
Private equity	36,775	15,464	closed end funds	(1)	Not redeemable
Private debt	11,347	16,131	closed end funds	(1)	Not redeemable
Private real estate	10,578	1,808	closed end funds	(1)	Not redeemable
Annuity & life income pooled funds	2,989	-	daily		No lock-up restrictions
Total	\$ 389,462	\$ 33,403			

(1) UMF has made commitments to various private equity, private debt and private real estate partnerships. UMF expects these funds to be called over the next 1-5 years. Liquidity is expected to be received in the next 1-9 years.

(2) 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.

The following table 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, 2019 (\$ in thousands):

	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Alternative investments					
Multi-strategy hedge funds					
Equity	\$ 90,962	\$ -	daily to quarterly	01–60 days	No lock-up restrictions
Long/short	83,234	-	quarterly to annual	45–80 days	Lock-up provisions range from none to 1 year
Fixed income	37,601	5,474	quarterly	(2)	Lock-up provisions range from none to 2 years
Absolute return	26,540	-	quarterly to annual	45–65 days	No lock-up restrictions
Real assets	7,807	-	annual	90 days	No lock-up restrictions
Private equity	23,409	18,757	closed end funds	(1)	Not redeemable
Private debt	18,020	21,180	closed end funds	(1)	Not redeemable
Private real estate	9,519	3,705	closed end funds	(1)	Not redeemable
Annuity & life income pooled funds	3,472				
Total	\$ 300,564	\$ 49,116			

(1) UMF has made commitments to various private equity, private debt and private real estate partnerships. UMF expects these funds to be called over the next 1–5 years. Liquidity is expected to be received in the next 1–9 years.

(2) 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.

19. Subsequent Events

On October 28, 2020 the Building Authority issued federally taxable Revenue Refunding Bonds, Series 2020-4, for \$329.9 million in order to refund \$234.0 million of existing debt for Series 2013-1, 2013-2, 2014-1, 2014-3 and 2015-1 and defer the November 2020 principal payment on outstanding debt. Principal and interest payments are due each May 1 and November 1, commencing May 2021, with interest rates varying between 0.43% and 3.01%.

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

For purposes of determining the effects of subsequent events on these financial statements, management has evaluated events subsequent to June 30, 2020 and through December 10, 2020, the date on which the financial statements were available to be issued.

Required Supplementary Information (unaudited)

For the last ten years¹ (\$ in thousands)

SCHEDULE OF THE UNIVERSITY'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY MASSACHUSETTS STATE EMPLOYEES' RETIREMENT SYSTEM

	Based on the measurement date					
	6/30/19	6/30/18	6/30/17	6/30/16	6/30/15	6/30/14
University's proportion of the net pension liability	3.60%	3.09%	3.28%	3.12%	3.59%	3.49%
University's proportionate share of the net pension liability	\$ 526,739	\$ 409,319	\$ 420,234	\$ 429,871	\$ 408,418	\$ 237,134
University's covered-employee payroll	\$ 1,264,971	\$ 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	41.64%	32.94%	35.96%	37.18%	35.83%	22.35%
Plan fiduciary net position as a percentage of total pension liability	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					
	6/30/20	6/30/19	6/30/18	6/30/17	6/30/16	6/30/15
Contractually required contribution	\$ 40,617	\$ 35,843	\$ 28,292	\$ 25,618	\$ 22,386	\$ 22,386
Contributions in relation to the contractually required contribution	(40,617)	(35,843)	(28,292)	(25,618)	(22,386)	(22,386)
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
University's covered-employee payroll	\$ 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	3.21%	2.87%	2.28%	2.19%	1.94%	1.96%

1 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 OTHER POSTEMPLOYMENT BENEFITS (OPEB) LIABILITY STATE RETIREES' BENEFIT TRUST

	Based on the measurement date		
	6/30/19	6/30/18 (restated)	6/30/17
University's proportion of the net OPEB	5.43%	4.82%	4.67%
University's proportionate share of the net OPEB	\$ 992,991	\$ 895,669	\$ 817,357
University's covered-employee payroll	\$ 1,264,971	\$ 1,242,525	\$ 1,168,661
University's proportionate share of the net OPEB as a percentage of its covered-employee payroll	78.50%	72.08%	69.94%
Plan fiduciary net position as a percentage of total OPEB liability	6.96%	6.01%	4.80%

SCHEDULE OF THE UNIVERSITY'S CONTRIBUTIONS STATE RETIREES' BENEFIT TRUST

	For the fiscal year ended June 30		
	6/30/20	6/30/19	6/30/18
Contractually required contribution	\$ 21,040	\$ 26,137	\$ 21,421
Contributions in relation to the contractually required contribution	(21,040)	(26,137)	(21,421)
Contribution deficiency (excess)	\$ -	\$ -	\$ -
University's covered-employee payroll	\$ 1,264,971	\$ 1,247,098	\$ 1,242,525
Contributions as a percentage of covered-employee payroll	1.66%	2.10%	1.72%

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



Photos taken prior to COVID-19 social distancing practices

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Photos taken prior to COVID-19 social distancing practices

Photos taken prior to COVID-19 social distancing practices



University of Massachusetts

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Appendix D: Credit Ratings

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

D-2. S&P Rating Report – October 2020

D-3. Fitch Rating Report – October 2020

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

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

CREDIT OPINION

1 October 2020


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Asia Pacific 852-3551-3077

Japan 81-3-5408-4100

EMEA 44-20-7772-5454

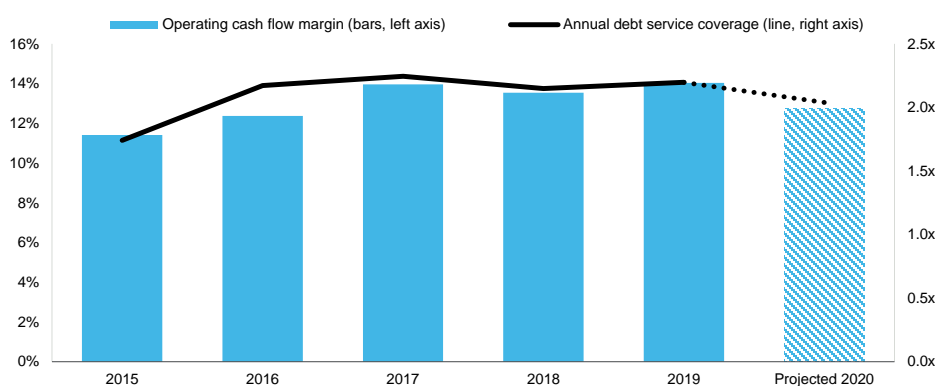
University of Massachusetts

Update to credit analysis

Summary

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

Exhibit 1

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


Source: Moody's Investors Service

Credit strengths

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

Credit challenges

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

Rating outlook

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

Factors that could lead to an upgrade

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

Factors that could lead to a downgrade

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

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

Key indicators

Exhibit 2

University of Massachusetts, MA

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

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

Source: Moody's Investors Service

Profile

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

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

Detailed credit considerations

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

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

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

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

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

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

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

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

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

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

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

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

Wealth and liquidity: stable wealth despite coronavirus disruptions

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

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

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

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

Liquidity

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

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

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

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

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

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

Legal security

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

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

Debt structure

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

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

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

Debt-related derivatives

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

Pensions and OPEB

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

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

ESG considerations

Environmental

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

Social

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

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

Governance

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

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

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

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

Rating methodology and scorecard factors

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

Exhibit 3

University of Massachusetts, MA

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

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

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

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

Source: Moody's Investors Service

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

RatingsDirect®

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

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

Credit Profile

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

Long Term Rating

AA-/Negative

New

Massachusetts Development Finance Agency, Massachusetts

University of Massachusetts System, Massachusetts

Massachusetts Development Finance Agency (University of Massachusetts System)

Long Term Rating

AA-/Negative

Affirmed

Rating Action

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

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

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

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

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

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

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

Credit overview

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

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

The ratings reflect our view of the system's:

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

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

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

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

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

Environment, social, and governance (ESG) factors

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

Negative Outlook

Downside scenario

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

Return to stable scenario

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

Credit Opinion

Enterprise Profile

Economic fundamentals

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

Market position and demand

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

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

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

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

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

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

Management

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

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

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

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

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

Financial Profile

Financial management policies

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

Operating performance

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

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

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

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

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

Available resources

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

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

Debt and contingent liquidity

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

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

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

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

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

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

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

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

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

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

Related Research

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

Ratings Detail (As Of October 2, 2020)

Massachusetts Development Finance Agency, Massachusetts

University of Massachusetts System, Massachusetts

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

Unenhanced Rating AA-(SPUR)/Negative Affirmed

Massachusetts Dev Fin Agy (University of Massachusetts System)

Long Term Rating AA-/Negative Affirmed

Unenhanced Rating NR(SPUR) Current

Short Term Rating NR Current

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

Long Term Rating AA-/Negative Affirmed

Univ of Massachusetts Bldg Auth, Massachusetts

University of Massachusetts System, Massachusetts

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

Ratings Detail (As Of October 2, 2020) (cont.)

<i>Long Term Rating</i>	AA-/Negative	Affirmed
University of Massachusetts Bldg Auth (University of Massachusetts System) (AGM)		
<i>Unenhanced Rating</i>	AA-(SPUR)/Negative	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) rfdg rev bnds ser 2020-4 dtd 04/14/2020 due 11/01/2044		
<i>Long Term Rating</i>	NR	Current
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Negative	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Negative	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Negative	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Negative	Affirmed
Univ of Mass Bldg Auth (Univ of Mass Sys)		
<i>Long Term Rating</i>	AA-/A-1/Negative	Affirmed
<i>Unenhanced Rating</i>	NR(SPUR)	Current
Univ of Mass Bldg Auth (Univ of Mass Sys) PCU_USF		
<i>Long Term Rating</i>	AA-/Negative	Affirmed

Many issues are enhanced by bond insurance.

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Appendix D-3: Fitch Rating Report – October 2020

University of Massachusetts

New Issue Summary

Sale Date: Week of Oct. 5, 2020

Series: Series 2020-4 (Taxable)

Purpose: Refund and refinance existing debt.

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

Analytical Conclusion

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

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

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

Key Rating Drivers

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

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

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

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

Ratings

Long Term Issuer Default Rating AA

New Issue

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

Outstanding Debt

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

Rating Outlook

Stable

Applicable Criteria

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

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

Related Research

[Fitch Affirms University of Massachusetts Revs at 'AA'; Outlook Stable \(October 2020\)](#)

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Rating Sensitivities

Factors that could, individually or collectively, lead to positive rating action/upgrade:

- Continued favorable trend of revenue growth and prudent expense management, which translates into stronger cash flow and balance sheet strengthening would prompt upward rating consideration, particularly as available funds (AF) levels approach 80% of adjusted debt.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

- Failure to maintain steady leverage levels against expected increases in debt and capital needs may pressure the rating should AF-to-total-adjusted debt fall persistently below 30%.
- A sustained decline in operating performance to adjusted cash flow levels consistently below 12% could pressure the rating, particularly against UMass' sizeable expected capital improvement plan.
- Material erosion in internal liquid resources and/or significant downward movement in the university's long-term rating, while highly unlikely, would influence the short-term rating.

Credit Profile

UMass is the Commonwealth of Massachusetts' only public research university system. UMass was established in 1863 and encompasses five separate campuses at Amherst (its flagship campus), Boston, Dartmouth, Lowell and Worcester. The five campuses are geographically dispersed throughout the commonwealth and possess distinct and complementary missions. In fall 2019, the system enrolled 66,003 full time equivalent (FTE) students. In addition, UMass has systemwide online education (UMass Online), which in fiscal 2019 offered over 1,500 online and blended courses with nearly 150 certificate and degree programs.

The UMBA, the university's debt issuance arm (reported as a blended component unit of the university), is a public instrumentality of the Commonwealth and is empowered to construct dormitory, auxiliary, academic and other facilities for the university's campuses. Fitch does not view the UMBA as having any distinct operating risk from that of UMass, and thus there is no separate IDR assigned.

UMBA revenue bonds and commercial paper notes are special obligations of the UMBA payable by the university. Under a service contract between the university and UMBA, the university is required to remit to the authority annually an amount sufficient to pay debt service and other costs associated with operating and maintaining the financed projects during the next year, referred to as the certified amount. The annual certified amount is payable from a variety of revenue streams, including all legally available revenues of the university and UMBA, including state appropriations, as well as unrestricted net assets (UNA, defined as unrestricted fund accumulated surpluses, as well as quasi-endowment, unexpended plant fund, and unrestricted renewal and replacement fund).

Coronavirus Impacts

The ongoing coronavirus pandemic and related government-led containment measures create an uncertain environment for the U.S. public finance higher education sector. Fitch's forward-looking analysis is informed by management's expectations coupled with Fitch's common set of baseline and downside macroeconomic scenarios. Fitch's scenarios will evolve as needed during this dynamic period. Fitch's current baseline scenario incorporates the sharp economic contraction in 2Q20, with an initial bounce in 3Q20 followed by a slower recovery trajectory from 4Q20. For the higher education sector, the baseline case assumes the closure of most residential campuses for a three- to four-month period with continued sporadic closures through fall 2020. Rating sensitivities address potential rating implications under a downside scenario, which assumes slower economic recovery and prolonged or recurring disruptions related to the coronavirus into fiscal 2021, including enrollment and related revenue pressures for higher education.

Rating History

Rating	Action	Outlook/ Watch	Date
AA	Affirmed	Stable	9/29/20
AA	Affirmed	Stable	3/16/20
AA	Affirmed	Stable	12/18/19
AA	Affirmed	Stable	3/20/19
AA	Affirmed	Stable	1/23/19
AA	Affirmed	Stable	1/9/17
AA	Affirmed	Stable	5/2/14
AA	Affirmed	Stable	1/24/14
AA	Affirmed	Stable	8/2/13
AA	Affirmed	Stable	7/15/13
AA	Affirmed	Stable	4/9/13
AA	Affirmed	Stable	2/28/13
AA	Affirmed	Stable	10/21/11
AA	Affirmed	Stable	5/25/11
AA	Upgraded	Stable	10/13/10
AA-	Revised	Stable	4/30/10
A+	Affirmed	Stable	3/18/09
A+	Affirmed	Stable	6/18/08
A+	Affirmed	Stable	6/3/08
A+	Affirmed	Stable	3/27/08
A+	Affirmed	Stable	9/18/06
A+	Affirmed	Stable	3/27/06
A+	Affirmed	Stable	3/21/05
A+	Affirmed	Stable	1/31/05
A+	Affirmed	Stable	5/6/04
A+	Affirmed	Stable	7/22/03
A+	Affirmed	Stable	2/18/03
A+	Affirmed	Stable	5/10/02
A+	Affirmed	Stable	3/21/02
A+	Affirmed	Stable	5/11/01
A+	Affirmed	Stable	12/1/11
A+	Assigned	Stable	2/24/00

UMass shifted to a fully remote learning model effective March 16, 2020 and substantially vacated its university-owned residence halls and campus. UMass received \$46 million in Coronavirus Aid, Relief and Economic Security (CARES) Act proceeds, \$23 million of which was available for institutional use and partially offset room and board adjustments totalling approximately \$65 million. Fall 2020 courses have resumed in a mix of in-person, remote and hybrid structures, with remote learning as the predominant model.

Revenue Defensibility

UMass continues to draw solid student demand despite a challenging longer-term demographic picture. Enrollment has grown consistently near 1% annually for several years, supported in part by healthy out-of-state demand at the flagship Amherst campus. Enrollment is expected to remain within 1% of prior year in fall 2020, once final data is reported. UMass Online has helped support enrollment growth (over 65,000 full time equivalents and over 83,000 course enrollments in fall 2020, up from prior year). Student quality has remained steady to improving, with a consistently solid 85% retention rate of freshman students. Selectivity has also been steady, near 67% for freshman and 70% for transfers in fall 2019, and matriculation is somewhat light at just under 22% for freshman, though not unusual for a multi-campus public system.

UMass continues its work toward a new virtual college, announcing a strategic partnership with Brandman University (a nonprofit affiliate of Chapman University), which specializes in serving adult students in a primarily online format. A capital contribution is not currently contemplated; rather its anticipated to be structured as a strategic partner to help support UMass' goals in furthering continuing adult education needs.

Solid state support continues, despite some uncertainty regarding a final fiscal 2021 budget from the Commonwealth. Total commonwealth appropriations (including for fringe benefits) were about \$780 million in fiscal 2019, and the base appropriation for fiscal 2020 was steady at \$560 million over prior years' \$542 million. UMass' pooled endowment equaled about \$1 billion in fiscal 2020 (unaudited), and the university utilized a 4% spending distribution in fiscals 2019 and 2018.

Operating Risk

UMass' operating risk profile is assessed at 'aa' and characterized by diverse revenues and a stable trend of breakeven operations and consistent cash flow margin averaging near 12% over the last three fiscal years. The coronavirus pandemic had an \$114 million impact on fiscal 2020 results (unaudited) and UMass successfully adjusted its operations by \$77 million as an offset in order to achieve operating balanced. An interim fiscal 2021 budget was approved in July (to be used through October), which presumed a 4.9% enrollment loss (on which UMass is outperforming) as well as lower funding levels from the Commonwealth. With about \$291 million in operating adjustments in the works, including workforce reductions, furloughs, non-personnel expense reductions, UMass is committed to achieving balanced operations. In addition, capital projects are undergoing a new approval process, and UMass has identified \$222 million in previously approved projects to be put on hold.

UMass leadership continues to focus on sufficient and sustainable operations at each of its campuses, and as a system overall. Solid cash flow continues to be an important offset to UMass' sizable capital plans, and management will closely monitor its capital and debt levels on both a campus and system level. UMass' policy is to maintain debt service-to-total expenditures at no more than 8% by campus, which it has been largely successful at maintaining in recent years.

UMass generates consistent annual and solid campaign giving results in support of its strategic needs. Annual giving has been above \$115 million since fiscal 2014, and UMass also benefits from fairly stable state capital appropriation support (equal to \$25 million in fiscal 2019). UMass' robust \$1.8 billion five-year capital plan through 2025 will be funded from a combination of additional debt, fundraising, state support and internally.

Financial Profile

UMass' debt burden remains manageable and materially unchanged with the series 2020-4 refunding transaction, with no extension of current debt maturities. Current debt service

coverage (as Fitch calculates) was 2x in fiscal 2019, and debt service is slightly front-loaded, with over half of the principal amortizing within 15 years. Maximum annual debt service on the authority bonds will be approximately \$232 million, with final maturity in 2050. Some additional debt is likely and can be absorbed at the current rating as principal amortization will provide some additional capacity over the next few years. Fitch expects any future debt issuance to be accompanied by growth or maintenance of resources sufficient to cover debt service and maintain the current rating.

Total long-term debt equaled approximately \$3 billion at fiscal 2019, including approximately \$133 million in commercial paper (\$200 million maximum authorization) and \$295 million in VRDB's, which all have various standby bank purchase agreements with expirations in July and August 2022. UMass also has \$20 million in debt that is supported by self-liquidity, which Fitch rates 'F1+' given UMass' long-term credit quality and coverage from ample highly liquid resources. Overall, UMass maintains adequate balance-sheet resources, with steady available funds against expenses of 49%. However, AF is weaker against adjusted debt at just under 44%.

Debt equivalents totaled about \$780 million in fiscal 2019, in the form of non-cancellable operating leases and the Massachusetts State Employees Retirement System cost-sharing, multi-employer defined benefit pension plan liability. The pension obligation is the largest component of adjusted debt, reflecting UMass' reported \$409 million in net pension liability adjusted to a 6% discount rate (down from the 7.35% disclosed discount rate). The state provides support of a portion of UMass' fringe benefit costs, which equaled \$234.5 million net of the university's contribution of its portion.

Security

UMass revenue bonds are secured by a pledge of the university's gross unrestricted revenue and other legally available funds. The bonds and commercial paper notes are special obligations of the University of Massachusetts Building Authority (UMBA) payable from payments made by the university. Under a service contract between the university and UMBA, the university is required to remit to the authority annually an amount sufficient to pay debt service and other costs associated with operating and maintaining the financed projects during the next year, referred to as the certified amount. The annual certified amount is payable from a variety of revenue streams, including all legally available revenues of the university and UMBA, including state appropriations, as well as unrestricted net assets (UNA, defined as unrestricted fund accumulated surpluses, as well as quasi-endowment, unexpended plant fund, and unrestricted renewal and replacement fund).

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg

Financial Summary

(\$000, Audited Fiscal Years Ended June 30)	2016	2017	2018	2019
Unrestricted Operating Revenues				
Gross Tuition & Fees	1,070,840	1,136,540	1,184,932	1,223,749
Less: Student Aid	244,025	288,708	310,106	328,845
Net Tuition & Fees (\$000)	826,815	847,832	874,826	894,904
Sales & Services of Auxiliary Enterprises	383,281	400,822	416,733	441,795
Total Grants & Contracts	604,095	634,131	649,268	684,544
State Appropriations	669,748	720,817	751,894	780,221
Gifts & Contributions	42,415	26,253	39,022	43,705
Dividend & Interest Income	8,862	28,756	37,622	48,943
All Other Operating Revenues	551,944	526,897	480,106	385,962
Other Material (10%) Operating Revenue	119,931	113,950	136,159	137,607
Total Operating Revenue	3,207,091	3,299,458	3,385,630	3,417,681
Unrealized / Realized Gains Portion of Endowment Payout	24,740	26,877	26,742	27,741
Adjusted Total Operating Revenue	3,231,831	3,326,335	3,412,372	3,445,422
Unrestricted Operating Expenses				
Instruction	794,691	824,042	876,235	901,235
Academic Support	181,057	177,173	187,495	184,462
Institutional Support	248,379	247,740	271,535	269,126
Student Services	141,915	151,033	156,934	158,991
Public Service	481,563	413,958	403,454	310,387
Research	434,213	447,370	471,135	487,725
Auxiliary Enterprises	297,089	306,850	313,741	338,207
Student Aid	44,645	47,710	50,410	49,509
Operation & Maintenance of Plant	228,406	240,501	255,825	246,725
Depreciation	240,865	249,669	261,417	276,638
Interest Expense	105,276	110,069	115,851	116,217
All Other Operating Expenses	47,930	57,276	52,211	47,785
Total Operating Expense	3,246,029	3,273,391	3,416,243	3,387,007
Change in Net Assets from Operations	(38,938)	26,067	(30,613)	30,674
Adjusted Change in Net Assets from Operations	(14,198)	52,944	(3,871)	58,415
Unrestricted Non-Operating Revenues/(Expenses)				
Realized & Unrealized Gain (Loss) on Investments	(16,072)	36,744	13,724	31,549
Capital Appropriations	121,298	121,380	67,437	25,500
Capital Grants & Gifts	54,244	29,080	8,732	13,165
Other Non-Operating Expenses	(14,067)	(6,973)	(9,554)	(16,186)
Other Non-Operating Revenues	1,540	17,085	1,118	1,576
Total Non-Operating Revenue (Expense)	146,943	197,316	81,457	55,604

Note: Fitch may have reclassified certain financial statement items for analytical purposes.

Sources: Fitch Ratings, Fitch Solutions, University of Massachusetts (MA)

Financial Summary

(\$000, Audited Fiscal Years Ended June 30)	2016	2017	2018	2019
Adjusted Change in Net Assets from Operations	(14,198)	52,944	(3,871)	58,415
Add: Interest Expense	105,276	110,069	115,851	116,217
Add: Pension Expense	34,466	26,300	58,500	52,200
Add: Depreciation Expense	240,865	249,669	261,417	276,638
Add: Non-Cash OPEB Expense	—	—	48,579	18,463
Less: Pension Contribution	22,386	25,618	28,292	35,843
Cash Flow	344,023	413,364	452,184	486,090
Adjusted Change in Net Assets from Operations	(14,198)	52,944	(3,871)	58,415
Add: Interest Expense	105,276	110,069	115,851	116,217
Add: Pension Expense	34,466	26,300	58,500	52,200
Add: Depreciation Expense	240,865	249,669	261,417	276,638
Less: Total Proportionate Fitch-Adj Pension Service Cost	29,334	29,579	28,032	26,490
Cash Flow -- Adjusted	337,075	409,403	403,865	476,980
Current Debt Service	223,664	235,554	222,150	240,687
Pro Forma Maximum Annual Debt Service (MADS)	259,257	232,031	218,913	324,343
Balance Sheet - Assets				
Cash & Cash Equivalents	604,452	553,642	430,389	317,892
Investments	940,471	1,052,563	1,245,433	1,359,570
Total Cash & Investments	1,544,923	1,606,205	1,675,822	1,677,462
Property, Plant & Equipment, Net	4,615,776	4,854,110	5,075,476	5,164,200
Balance Sheet - Liabilities & Net Assets				
Fixed Rate Bonds Payable	2,410,272	2,492,231	2,447,485	2,313,245
Unhedged Variable Rate Bonds Payable	20,000	20,000	20,000	20,000
Hedged Variable Rate Bonds Payable	425,040	413,230	401,310	389,095
Total Bonds Payable	2,855,312	2,925,461	2,868,795	2,722,340
Capitalized Leases	598	592	2,262	1,836
Commercial Paper	—	—	65,969	132,810
Debt Equivalents	878,228	860,090	762,892	780,027
All Other Obligations	124,310	166,381	152,042	185,392
Total Other Obligations	350,049	425,083	457,105	565,637
Adjusted Debt	3,858,448	3,952,524	3,851,960	3,822,405
Unfunded Capital Commitments	—	—	35,151	55,696
Unrestricted Net Assets	549,471	616,757	(150,080)	(75,609)
Invested in Capital	2,013,966	2,208,370	2,288,599	2,343,872
Restricted Net Assets - Non-Expendable (Fitch-Adjusted)	18,384	27,443	28,022	28,617
Restricted Net Assets - Expendable (Fitch-Adjusted)	218,272	201,710	222,343	206,023
Total Net Assets	2,800,093	3,054,280	2,388,884	2,502,903
Balance Sheet - Resources & Liquidity				
Available Funds (AF)	1,526,539	1,578,762	1,647,800	1,648,845
Foundation Available Funds	—	—	140,015	22,585
Total Available Funds (University & Foundation)	1,526,539	1,578,762	1,787,815	1,671,430
Statement of Cash Flows				
Depreciation	240,865	249,669	261,417	276,638
Net Cash Generated (Used) in Operating Activities	(570,853)	(488,027)	(342,853)	(508,876)
Additions of PP&E/Capital Assets	191,039	105,493	487,912	382,048
Payments on Bonds Payable	78,287	120,353	96,325	103,170
Cash Paid for Interest	113,746	115,201	125,825	137,517
Pension Plans				

Total Pension Liability (TPL, AAL)	1,271,142	1,177,084	1,281,592	1,275,534
Fiduciary Net Position (FNP, AVA)	862,724	747,213	861,358	866,215
Fitch Adjusted Total Pension Liability (TPL, AAL)	1,605,453	1,484,303	1,521,250	1,473,242
Fitch Adjusted Net Pension Liability (NPL, UAAL)	742,728	737,090	659,892	607,027
Fitch Adjusted Ratio of Assets to Liabilities (FNP/TPL, AVA/AAL) (%)	53.7	50.3	56.6	58.8
Total Pension Expense	34,466	26,300	58,500	52,200
Actual Contributions	22,386	25,618	28,292	35,843
Total Pension Service Cost	25,117	25,376	28,031	26,490

Note: Fitch may have reclassified certain financial statement items for analytical purposes.
Sources: Fitch Ratings, Fitch Solutions, University of Massachusetts (MA).

Financial Ratios

(Audited Fiscal Years Ended June 30)	2016	2017	2018	2019
Revenue Diversity (% Adjusted Total Unrestricted Operating Revenues)				
Tuition	25.6	25.5	25.6	26.0
Student Fees (Tuition & Auxiliary Revenues)	37.4	37.5	37.9	38.8
Total Grants & Contracts	18.7	19.1	19.0	19.9
State Appropriations	20.7	21.7	22.0	22.7
Gifts & Contributions	1.3	0.8	1.1	1.3
Total Investment Return	1.0	1.7	1.9	2.2
Expense Ratios (% Total Unrestricted Operating Expenses)				
Instruction	24.5	25.2	25.7	26.6
Research	13.4	13.7	13.8	14.4
Operation & Maintenance of Plant	7.0	7.4	7.5	7.3
Depreciation	7.4	7.6	7.7	8.2
Interest	3.2	3.4	3.4	3.4
Capital Expenditures as % of Depreciation	79.3	43.0	186.6	138.1
Average Age of Plant (Years)	11.2	12.0	11.8	12.0
Financial Aid Ratios				
Tuition Discounting (%)	22.8	25.4	26.2	26.9
Net Tuition & Fees	826,815	847,832	874,826	894,904
Change in Net Tuition & Fees (%)	8.1	2.5	3.2	2.3
Net Tuition Revenue / FTE	13,055	13,252	13,557	13,695
Change in Net Tuition Revenue / FTE (%)	6.3	1.5	2.3	1.0
5-Year Net Tuition Revenue per FTE Enrollment CAGR (%)	5.1	3.6	2.9	2.6
Operating Performance Ratios (%)				
Adjusted Operating Margin	(0.4)	1.6	(0.1)	1.7
Cash Flow Margin -- Adjusted	10.4	12.3	11.8	13.8
Balance Sheet Ratios (%)				
Available Funds / Total Operating Expense	47.0	48.2	52.3	49.3
Available Funds / Total Long Term Debt	51.2	51.1	57.9	54.9
Available Funds / Adjusted Debt	39.6	39.9	46.4	43.7
Available Funds / MADS (x)	5.9	6.8	8.2	7.1
Leverage (Adjusted Total Unrestricted Operating Revenues Basis)				
Current Debt Service Coverage (x)	1.5	1.8	2.0	2.0
Current Debt Burden (%)	6.9	7.1	6.5	7.0
Pro Forma MADS Coverage (x)	1.3	1.8	2.1	2.1
Pro Forma MADS Burden (%)	8.0	7.0	6.4	6.8
Variable Rate Bonds as % of Total Bonds	15.6	14.8	14.7	15.0
Hedged Variable Rate Bonds as % of Total Bonds	14.9	14.1	14.0	14.3

Note: Fitch may have reclassified certain financial statement items for analytical purposes.
Sources: Fitch Ratings, Fitch Solutions, University of Massachusetts (MA).

Demand Summary

(Fall Semester of Fiscal Years Ended June 30)	2017	2018	2019	2020
Headcount				
Total Undergraduate Enrollment	56,861	56,824	57,069	57,364
Total Graduate	17,635	17,748	17,636	17,701
Total Headcount Enrollment	74,496	74,572	74,705	75,065
Total Undergraduate / Total Headcount Enrollment (%)	76.3	76.2	76.4	76.4
Full-Time Equivalent (FTE)				
Total FTE Enrollment	63,978	64,531	65,346	66,003
5-Year FTE Enrollment CAGR (%)	1.5	1.4	1.3	1.2
Admissions				
Freshman Applications	70,025	71,495	74,333	78,615
Freshman Admissions	43,604	46,334	49,584	52,895
Acceptance Rate (%)	62.3	64.8	66.7	67.3
Freshman Matriculants	9,343	9,925	10,832	11,530
Matriculation Rate (%)	21.4	21.4	21.9	21.8
Transfer Applications	9,971	9,980	10,900	10,302
Transfer Admissions	7,818	8,001	7,815	7,229
Acceptance Rate (%)	78.4	80.2	71.7	70.2
Transfer Matriculants	4,746	4,777	4,538	4,199
Matriculation Rate (%)	60.7	59.7	58.1	58.1
In-State Undergraduate Student (%)	82.3	82.6	83.5	83.2
Out-of-State Undergraduate Student (%)	17.7	17.4	16.5	16.8
Student Quality				
Freshmen SAT	1,120	1,172	1,183	1,182
Freshmen to Sophomore Year Retention Rate (%)	85.4	85.2	84.3	—
Six Year Graduation Rate (%)	63.7	65.5	68.8	—
Annual Undergraduate Cost of Attendance				
Tuition	14,590	15,030	15,406	15,791
Mandatory Fees	381	381	481	598
Room & Board	11,897	12,258	12,626	13,004
Total	26,868	27,669	28,513	29,393

Sources: Fitch Ratings, Fitch Solutions, University of Massachusetts (MA).

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Appendix D-4: Moody's Rating Report – March 2021

CREDIT OPINION

11 March 2021

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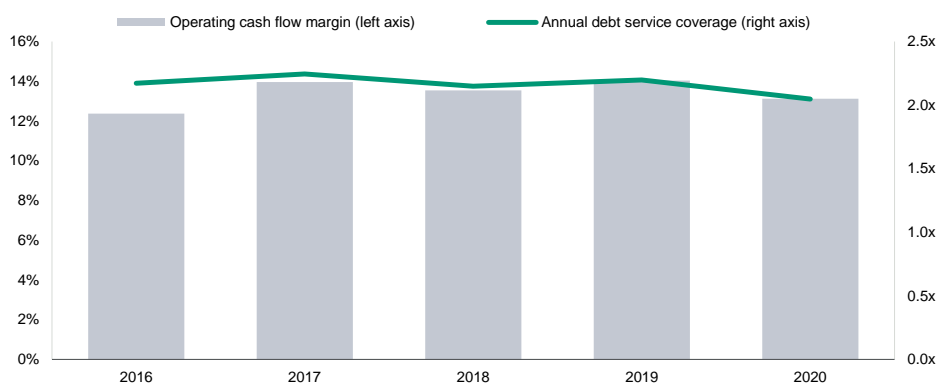
University of Massachusetts

Update to credit analysis

Summary

[University of Massachusetts](#)' (Aa2 stable) credit profile reflects its large scale and scope of operations, inclusive of the flagship and multiple campuses, its strong relationship with an academic medical center and its excellent strategic positioning that incorporates disciplined fiscal oversight. UMass benefits from solid operating and capital support from the [Commonwealth of Massachusetts](#) (Aa1 stable), significant research activity and growing net tuition revenue. In addition, institutional aid received from 2020 and 2021 federal aid packages of about \$209 million are instrumental in reimbursement of lost revenue. These factors will provide UMass with sufficient runway to manage through near-term operating volatility associated with the pandemic. UMass remains challenged by weaker spendable cash and investments to operations and debt at 0.5x and 0.5x, respectively, relative to peers, with continued capital needs and monitoring of two public-private partnerships. The university will continue to contend with historically modest philanthropic activity and expected declines in high school graduates in the university's core service area, though enrollment at most campuses remains healthy.

Exhibit 1

Steady operating performance and debt service coverage despite coronavirus disruptions in fiscal 2020


Source: Moody's Investors Service

Credit strengths

- » Important role in Massachusetts public higher education, with sizable multi-campus \$3.4 billion scope of operations, serving 66,070 full-time equivalent (FTE) students
- » Solid, consistent operating and capital support from Aa1-rated Massachusetts
- » Strong fiscal discipline and oversight leading to good operating cash flow margins and over 2x debt service coverage for fiscal 2020, with similar results projected in fiscal 2021
- » Steady enrollment, and growing net tuition revenue and research activity

Credit challenges

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

Rating outlook

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

Factors that could lead to an upgrade

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

Factors that could lead to a downgrade

- » Sustained decrease in debt service coverage to below 2.0x including a decline in spendable cash and investments to debt below 0.4x
- » Reduction of state support for operations or capital

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

Key indicators

Exhibit 2

University of Massachusetts, MA

	2016	2017	2018	2019	2020	Median: Aa Rated Public Universities
Total Fall FTE Enrollment	63,978	64,530	65,347	66,003	66,070	30,062
Operating Revenue (\$000)	3,219,260	3,289,330	3,365,547	3,390,137	3,408,595	1,282,865
Annual Change in Operating Revenue (%)	12.5	2.2	2.3	0.7	0.5	4.2
Total Cash & Investments (\$000)	1,483,807	1,655,974	1,885,013	2,023,664	2,048,544	1,582,410
Total Debt (\$000)	2,855,910	3,055,930	3,065,672	3,118,388	2,991,114	690,511
Spendable Cash & Investments to Total Debt (x)	0.4	0.4	0.5	0.5	0.5	1.5
Spendable Cash & Investments to Operating Expenses (x)	0.4	0.4	0.4	0.5	0.5	0.7
Monthly Days Cash on Hand (x)	92	119	139	135	123	157
Operating Cash Flow Margin (%)	12.4	14.0	13.5	14.0	13.1	11.8
Total Debt to Cash Flow (x)	7.2	6.7	6.7	6.6	6.7	4.1
Annual Debt Service Coverage (x)	2.2	2.2	2.1	2.2	2.0	2.8

Source: Moody's Investors Service

Profile

University of Massachusetts is a large public university system serving the Commonwealth of Massachusetts. The system includes five campuses: Amherst (flagship), Boston, Dartmouth, Lowell, and Worcester (medical school); and UMass Online. Included in UMass' operations is Commonwealth Medicine, a public, nonprofit healthcare consulting organization. Fiscal 2020 operating revenue was \$3.4 billion and fall 2020 enrollment was 66,070 full-time equivalent (FTE) students.

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

Detailed credit considerations

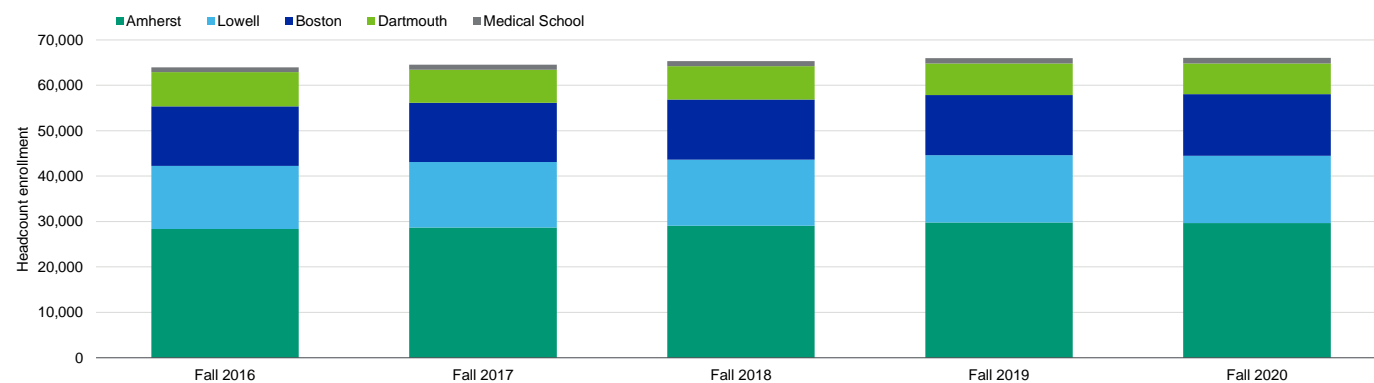
Market position: sound demand as large, diversified public higher education system

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

Exhibit 3

Steady enrollment across the largest campuses

Fall enrollment, by campus



Source: Moody's Investors Service

Overall enrollment across the UMass campuses, based on final census numbers for fall 2020, was up a modest 0.1%, which was more favorable than the budgeted 5.0% decrease. All of the UMass campuses remained in remote learning delivery modes for fall 2020 and spring 2021 with certain exceptions for on-campus instruction (primarily in-person labs).

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

University of Massachusetts maintains a sizable research profile, which enhances its reputation and revenue diversity. Research activity, totaling \$486 million in fiscal 2020 (14.5% of expenses), is concentrated at the Amherst and Worcester campuses in biomedical, applied materials and sustainability areas.

Operating performance: management's financial accountability framework underpins steady operations despite significant business disruptions

UMass will continue to face challenges stemming from disruptions of the coronavirus pandemic, but disciplined fiscal oversight, planned expense reductions and careful use of federal aid relief will limit significant adverse impact to operating performance. Historically strong and consistent state operating appropriations, comprising 24% of fiscal 2020 revenue, in addition to solid capital support, contribute to the university's excellent credit quality and also link the university closely to the state's credit quality. State support for a portion of increased salary costs associated with collective bargaining units is favorable to the university's credit profile.

Across the \$3.4 billion enterprise, the fiscal 2020 operating cash flow margin was a sound 13.1% providing 2.0x debt service coverage. Solid 5.7% year over year growth in net tuition revenue helped mitigate the roughly 18% decline in auxiliary revenue due to closure or reduction of housing, dining, parking and athletic operations. Direct federal aid from the April 2020 CARES Act totaled \$46.6 million, which included \$23 million for students. Only \$13.9 million was allocated in fiscal 2020 and the remainder will be allocated in fiscal 2021.

Fiscal 2021 operations remain pressured due to lower auxiliary revenue and higher than budgeted COVID-19 expenses, though the retraction of the state's 10% operating appropriation cut and higher enrollment than budgeted help mitigate the budget gap, and poise the university for better than balanced operations. The university received \$76 million from the December 2020 authorized federal relief aid, which will be allocated to students and university approved needs over fiscal years 2021 and 2022. Another \$134 million, with nearly half for institutional needs, is included in the March 2021 America Rescue Plan Act.

Wealth and liquidity: steady growth, but still below peer levels

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

Cash and investments totaled \$2.0 billion for fiscal 2020, up solid 38% over fiscal 2016. Fiscal 2020 spendable cash and investments of \$1.57 billion covered operating expenses by 0.5x, less than the Aa2-median of 0.7x.

Favorably, management projects nearly similar levels of cash and investments relative to operating expenses for fiscal 2020, reflecting no use of reserves for operations. Current fiscal 2021 budget projections limit use of reserves or liquidity to balance operations.

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

Liquidity

UMass' liquidity relative to operating expenses is modest relative to Aa2-rated peers, but generally improving based on its reserve policy. Monthly liquidity of \$1.0 billion translated to 123 monthly days cash on hand for 2020, improved from the 92 days recorded

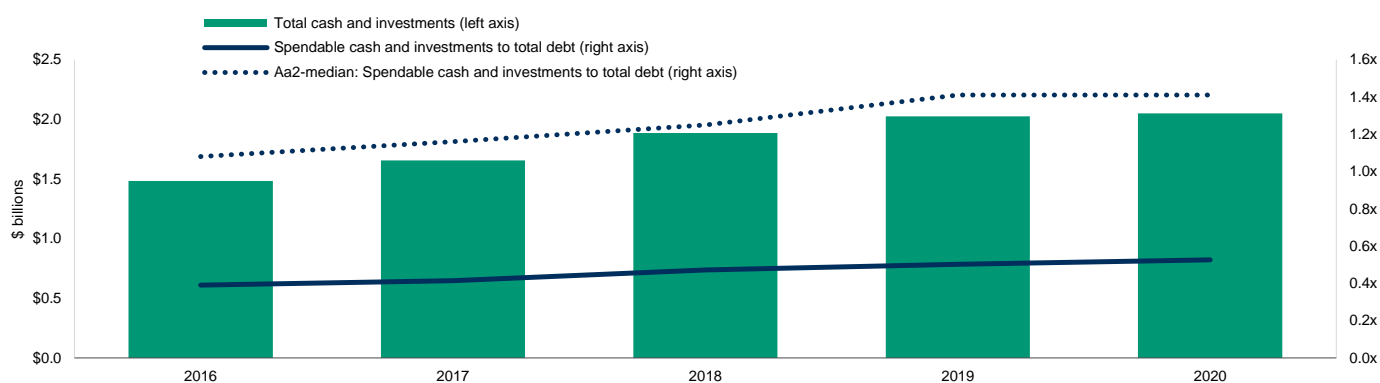
for fiscal 2016. Recent changes in allocations of available reserves toward longer term yield producing investments will decrease the pace of liquidity growth. Further, UMass is in the process of establishing a \$150 million revolving line of credit (see Debt Structure) to provide seasonal liquidity needs. Though monthly liquidity is less than the Aa2-median of 164 days, relatively stable operating performance, a mostly fixed rate debt portfolio and limited other expected calls on liquidity mitigate unexpected liquidity use.

Leverage: elevated leverage and ongoing capital needs, but measured pace of debt issuance

The university's leverage is elevated relative to rated peers, but will remain manageable due to consistency of operating performance and prudent capital planning. With lower wealth levels than peers, spendable cash and investments covered fiscal 2020 debt of \$3.0 billion by just 0.5x, well below the Aa2-rated median of 1.3x. Favorably, the university maintains a debt policy such that aggregate debt service will not exceed 8% of expenditures and projects remaining at or below 7% through fiscal 2025. The system also has strong management oversight for its detailed capital planning and approval process that fully integrates campus master plans and five-year forecasts.

Exhibit 4

Rising wealth is one mitigant to high financial leverage



Fiscal 2019 Aa2-median is used as a proxy in fiscal 2020.

Source: Moody's Investors Service

The fiscal 2021-25 capital plan totals \$1.8 billion. Though borrowing plans and timing are not currently firm, the system expects to eventually issue up to about \$434 million. Favorably, the state has been an important capital funding partner, providing \$387 million in capital appropriations over the fiscal 2016-20 period. Additional capital funding is derived from operating cash flow, future debt, gifts and third party developers. With the exception of the refunding of the November 1, 2020 principal payment for cash flow relief due to coronavirus-related business disruptions, UMass makes principal payments of roughly \$100 million annually.

The university has agreements with third party developers to operate student housing projects. Outstanding debt associated these projects at the [UMass-Boston](#) and [UMass-Dartmouth](#), totaling \$261.3 million, are included in UMass' adjusted debt. The holders of the privatized student housing bonds do not have legal recourse to the assets and revenue of UMass. The UMass-Boston and UMass-Dartmouth projects were open for fall 2020 and spring 2021, but with very limited occupancy because classes are virtually all online. To date, the university and campuses have not provided any funding to the project owners to offset revenue reductions. Planning around a third PPP at the Amherst campus for housing projects has been temporary halted because of coronavirus-related priorities.

Legal security

The bonds and commercial paper notes are special obligations of the University of Massachusetts Building Authority (UMBA) payable from payments made by the university under a Contract for Management and Services. Under the contract between the university and UMBA, the university is required to remit to the authority annually an amount sufficient to pay debt service and other costs associated with operating and maintaining the financed projects during the next year, referred to as the Certified Amount. The annual certified amount is payable from a variety of revenue streams, including all legally available revenues of the university and UMBA, including state appropriations, as well as unrestricted net assets. For fiscal 2020, spendable cash and investments totaled \$1.57 billion relative to the certified amount of \$237 million in fiscal 2020 and \$246 million for fiscal 2021.

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

Debt structure

Favorably, debt is predominantly fixed rate with regular amortization. The university is planning a bond issuance (Series 2021-1 and 2021-2) that is expected to refinance all outstanding variable rate debt and terminate swaps. A manageable 10% of the university's fiscal 2020 debt was issued in a variable-rate mode, and much of it is swapped to fixed interest rates. At fiscal end 2020, the university's unrestricted monthly liquidity covered demand debt a good 2.6x.

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

The university has two commercial paper programs with a combined \$200 million authorization. The Series 2013A CP notes are supported by an SBPA with State Street Bank and Trust Company and the Series 2013B CP notes are supported by an SBPA with US Bank NA. Both CP note SBPAs expire on August 12, 2022. Moody's does not rate the Series 2013A CP notes. The 2013-A1 CP had a balance of \$31 million as of March 11, 2021.

UMass is planning to open a \$150 million revolving line of credit, which is expected to close in April 2021. The university's ability to open this line is the result of a legislative amendment that will allow borrowing for working capital. Management reports that it intends to use the line as a source of cash flow during the year and will pay off during each year, which is a condition of the amendment. The principal amount cannot exceed 8% of the university's approved operating budget. Renewal options allow for additional one year terms.

Debt-related derivatives

The university has three interest rate swaps in place to hedge the interest rates of its variable rate debt. The counterparties are Citibank NA, UBS AG and Deutsche Bank AG. Under the swaps, the authority is not required to post collateral at its current rating level. The counterparties can terminate the swaps if the authority's long-term unsecured senior debt rating is withdrawn, suspended or falls below Baa2 (or the equivalent from another credit rating agency). As of February 26, 2021, the swaps had a combined notional value of \$358.4 million and a combined mark to market swap liability of \$57.1 million.

Pensions and OPEB

The university has moderate exposure to additional debtlike obligations through its participation in the Massachusetts State Employees Retirement System (SERS), which is a cost sharing multiple-employer retirement plan sponsored by the state. The Moody's three-year adjusted net pension liability (ANPL) for the university is \$1.3 billion, and combined with other debt-like obligations and direct debt, represents 1.3x operating revenue for fiscal year 2020, nearly on par with the Aa2-rated public university median of 1.4x. Pension contributions for those in the SERS plan are determined by the plan and made by the university. Fiscal 2020 pension contributions were a modest 1.4% of operating expenses, well below the public university median of 2.2%.

UMass participates in an OPEB program that is provided through the Commonwealth of Massachusetts. UMass' share of the net OPEB liability was reported at \$993 million for fiscal 2020.

ESG considerations

Environmental

Environmental considerations are not a key credit driver. According to Moody's affiliate, Four Twenty Seven, the university's campuses in multiple regions of Massachusetts have a range of medium and high exposure to water stress, extreme rainfall and hurricanes. Heat stress exposure is low. Sea level rise is a medium exposure at the UMass-Boston and UMass-Dartmouth campuses, while not a material risk for the inland campus locations. UMass' commitments to ensuring safe infrastructure, demonstrated by the renovation of the inadequate structure at the UMass-Boston campus, and maintenance of insurance policies and safety procedures, are mitigate elevated environmental risks.

Social

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

We regard the coronavirus outbreak as a social risk under our ESG framework, given the substantial implications for public health and safety. For spring 2021, instruction remains remote for most classes and housing is limited to those with limited alternatives.

Governance

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

Rating methodology and scorecard factors

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

Exhibit 5

University of Massachusetts, MA

Scorecard Factors and Sub-factors	Value	Score
Factor 1: Market Profile (30%)		
Scope of Operations (Operating Revenue) (\$000)	3,408,595	Aaa
Reputation and Pricing Power (Annual Change in Operating Revenue) (%)	0.5	Ba3
Strategic Positioning	Aa	Aa
Factor 2: Operating Performance (25%)		
Operating Results (Operating Cash Flow Margin) (%)	13.1	Aa2
Revenue Diversity (Maximum Single Contribution) (%)	40.3	Aa2
Factor 3: Wealth & Liquidity (25%)		
Total Wealth (Total Cash & Investments) (\$000)	2,048,544	Aa1
Operating Reserve (Spendable Cash & Investments to Operating Expenses) (x)	0.5	A1
Liquidity (Monthly Days Cash on Hand)	123	A1
Factor 4: Leverage (20%)		
Financial Leverage (Spendable Cash & Investments to Total Debt) (x)	0.5	A1
Debt Affordability (Total Debt to Cash Flow) (x)	6.7	Aa2
Scorecard-Indicated Outcome		Aa2
Assigned Rating		Aa2

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

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

Source: Moody's Investors Service

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CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Appendix E: UMass Accountability

UMass Accountability Matrix

Report	Frequency	Primary Report Audience:	Required by (site of statute or Board Policy)	UMass Department Lead	Reported To: Executive Branch Agencies	Reported To: Legislature	Reported To: UMass Specific	Reported To: "Other" Entities (specify)	Link to Latest Report
Academic Quality Assurance and Development (AQAD)	annual	BOT		Academic Affairs			BOT		
Periodic Multi-year Review	annual	BOT		Academic Affairs			BOT		
Fall Course File	annual	BOT		Academic Affairs	DHE		BOT		https://www.umassp.edu/aasair/institutional-research/annual-publications
Fall Student File	annual	BOT		Academic Affairs	DHE		BOT		https://www.umassp.edu/aasair/institutional-research/annual-publications
Fall Enrollment File	annual	BOT		Academic Affairs	DHE		BOT		https://www.umassp.edu/aasair/institutional-research/annual-publications
Financial Indicators Peer System Ratio Analysis	annual	BOT	N/A	Budget			BOT		Not on website
Financial Aid Report	annual	BOT	N/A	Budget			BOT		https://www.umassp.edu/budget-office/annual-budget
Sustainability Report	annual	BOT	N/A	Budget			BOT		https://www.umassp.edu/budget-office/sustainability
Housing Report	ad hoc	BOT	N/A	Budget			BOT		Not on website
Quarterly Capital Report	quarterly	BOT	Board Policy T93-122	Budget			BOT		Not on website
Tuition & Fee Schedules	annual	BOT	Board Policy T92-031	Budget			BOT		Campus Bursar's Websites
5-Year Financial Projection	annual	BOT	N/A	Budget			BOT		Not on website
Annual Procurement Spending	annual	BOT	Board Policy T92-031	Budget			BOT		Not on website
EEO Affirmative Action Reporting	annual	BOT	T94-054	Human Resources			BOT	Federal	Not on website
Annual Indicators Report	annual	BOT	Board Policy T97-111	Institutional Research	ANF DHE	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umassp.edu/aasair/institutional-research/annual-publications
IPEDS - Amherst	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitid=acb1b1b1adb4&action=download
IPEDS - Boston	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitid=acb1b1b1aeb3&action=download
IPEDS - Dartmouth	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitid=acb1b2b4b3b2&action=download
IPEDS - Lowell	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitid=acb1b1b0acae&action=download
IPEDS - Medical	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitid=acb1b1b2abb3&action=download
IPEDS - Central	annual	BOT		Institutional Research			BOT	Federal	https://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx?unitid=acb1b1b1b0&action=download
Quarterly Operating Budget Reporting	quarterly	BOT		Budget			BOT		Not on website
Student Profile	annual	BOT	Board Policy T97-111	Institutional Research			BOT		https://www.umassp.edu/aasair/institutional-research/annual-publications
Degrees Conferred Data File	annual	BOT		Institutional Research	DHE		BOT		
UMASS Facts	annual	BOT		Institutional Research			BOT		https://www.umassp.edu/aasair/institutional-research/annual-publications
Federal Audits	On-going	Federal		Audit	Auditor		BOT	Federal	
A-133 Report on Federal Financial Assistance	annual	Federal	OMB - A-133	Controller	Comptroller		BOT	Federal	https://www.umassp.edu/controller/reports
Clery Act Reporting	annual	Federal	Federal Title 20, Section 28	Emergency Mgmt			BOT	Federal	
NSF Research & Development Expenditures at Universities & Colleges	annual	Federal		Institutional Research			BOT	Federal	https://www.umassp.edu/aasair/institutional-research/annual-publications

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
Quarterly Liquidity Disclosure	quarterly	Rating Agencies	Bond Documents	Budget				Municipal Securities Rulemaking Board	http://emma.msrb.org/ER916383-ER715908-ER1117347.pdf
State Auditor Activity	On-going	State		Audit	Auditor		BOT		
Quarterly Reserve Reporting	quarterly	BOT	Board Policy T94-018A	Controller			BOT		Not on website
State Budget Request (Official)	annual	State	MGL C.15A, S.15B	Budget	ANF EOE DHE	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umass.edu/budget-office/annual-budget
FY State Spending Plan Update	annual	State		Budget	ANF				Not on website
EOHHS Financial Aid Claim to TANF	twice annual	State	N/A	Budget	EOHHS				Not on website
BHE Waiver Report	annual	State	N/A	Budget	DHE				DHE database
BHE Tuition & Fee Report	annual	State	N/A	Budget	DHE				http://www.mass.edu/datacenter/tuition/AppendixTuitionFeesWeight7.asp
General Purpose Financial Statements/External Audit	annual	State	State Comptroller, Bond Documents	Controller	Comptroller	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umass.edu/controller/reports
MMARS - Revenue & Expenditure report for all non-appropriated funds	monthly	State	N/A	Controller	Comptroller				
MMARS -- Biweekly payroll for all state and non-state funded employees	biweekly	State	N/A	Controller	Comptroller				
Preliminary Admissions and Enrollment Data	annual	State		Institutional Research	DHE		BOT		
Annual HEFA Assurance Disclosure	annual	State			ANF				Not on website
Operating Budget	annual	Strategic Planning	Board Policy T92-031	Budget	ANF EOE	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umass.edu/budget-office/annual-budget
Capital Plan	annual	Strategic Planning	Board Policy T93-122	Budget	ANF DCAMM	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umass.edu/budget-office/capital-planning
Debt Affordability Analysis	annual/as required	Strategic Planning	Board Policy T09-050	Budget	ANF				Included in Financial Projection and Capital Plan
Efficiency & Effectiveness Report	annual	Strategic Planning	N/A	Budget		W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umass.edu/reports-and-initiatives/efficiency-and-effectiveness
UMA - Strategic Plan		Strategic Planning		Campus			President / BOT		https://www.umass.edu/planning/2018-2023-strategic-plan
UMB - Strategic Plan		Strategic Planning		Campus			President / BOT		https://www.umb.edu/the_university/strategicplan/fulfilling_the_promise
UMD - Strategic Plan		Strategic Planning		Campus			President / BOT		https://www.umassd.edu/strategicplan/
UML - Strategic Plan		Strategic Planning		Campus			President / BOT		http://www.uml.edu/2020/
UMMS - Strategic Plan				Campus			President / BOT		http://www.umassmed.edu/fmch/strategicplan/
Office of State Financial Assistance Audit	annual				DHE				
Student Financial Aid File	annual								
Chapter 647 Massachusetts Internal Control Law Reporting	monthly & as required				Auditor		BOT		
Sightlines Deference Maintenance Reporting	annual	BOT		Campus	DCAMM		BOT		Not on website

Appendix F: Appendices to UMass Efficiency & Effectiveness Section

F-1. Methodologies & Definitions

F-2. Legacy E&E Project Listing

F-3. 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: Legacy E&E Project Listing

Legacy Projects

Category	Project Title	Description	Cost Avoidance	Cost Savings
University - IT	Adobe	Prepare for System wide bid process 2/13. Update 12/5/14: Three year contract completed, total annual cost avoidance \$39,000. Improved product offering, Adobe Creative Cloud. all campuses and System Office participating excepting the Medical School.	\$ 123.00	\$ 39.00
University - IT	Anti Virus Software	Centralized contract completed	\$ 20.00	\$ 10.00
University - IT	Apple System wide agreement	Work with Apple by and all campuses to create a University wide agreement that provides an enhanced level of discounting and standard business terms	\$ -	\$ 90.00
University - IT	Atomic Learning	Training software currently being bid by A, B, D, L	\$ 35.00	\$ 4.00
University - IT	Automated Testing Tools	Software tool that allows "scripts" to be written to automate testing typically performed manually by application developers/specialists. Testing needs to be performed anytime there is a software update, fix, patch, etc. Savings relate to productivity gains and are categorized as cost avoidance. Total savings adjusted for upfront license cost of \$34K and annual maintenance of \$11K. This is a preliminary savings estimate and will be updated as the product matures.	\$ 254.60	\$ -
University - IT	Business Intelligence	Dashboard development and upgrade for SUMMIT (Financials, HR and Student Administration)	\$ 90.00	\$ -
University - IT	Checkpoint Security Software	Negotiated savings on university contract, savings thus far limited to Lowell and Dartmouth. Preferred university wide agreement available for use by other campuses. Existing cost not used, avoidance savings relates to projected spend vs. final negotiated deal.	\$ 187.00	\$ -
University - IT	Cognos Transition & Mobius Retirement	"Build SA dashboards Retire Mobius report system with XML Publisher, PeopleSoft Report Manager & Summit dashboards"	\$ 1,000.00	\$ -
University - IT	Dell (KACE End Point Software)	Negotiated 4 year savings off of state contract. Included in the deal were an additional 13,100 licenses, 4 additional servers (2 virtual; 2 physical), two weeks on-site training and 24 hours jump start training. The licenses and training were value added as part of the deal. Existing cost below excludes Lowell (no spend PY). Lowell generated cost avoidance savings based on their projected cost before system deal negotiated. Cost avoidance includes \$38K of avoided 4th year maintenance and \$68K of avoided product costs. Campus savings spread equally, Healey to revisit.	\$ 106.00	\$ 12.00
University - IT	Desktop & Laptop	Use programs through Dell and Lenovo. Discounts range from 25% to 36% off standard configurations with non-standard at 28%. Savings analysis assumes 25% in the interest of conservatism. Update 12/5/14: Contracts improved as a result of presence in Buyways resulting in an additional savings of \$355,000 during fiscal 2105. System wide bid process to be initiated for 2016	\$ 2,955.00	\$ 300.00
University - IT	Document Imaging Program	Implement for Undergraduate Admissions	\$ -	\$ 614.00
University - IT	DTR Boston Data Center Move	UMSO must move its Disaster Recovery components from Boston to UMA as part of the Data Center Optimization plan	\$ -	\$ -
University - IT	Echo 360 Contract Re-negotiation		\$ 150.00	\$ -
University - IT	EMC	Work with vendor to structure a system-wide contract that leverages combined buying power of the University. Secondary effort will focus on standardizing equipment where advantageous to do so.	\$ 300.00	\$ 50.00
University - IT	EMC Data Domain (Accunet)	Consolidation of storage backup functionality to Data Domain from both Avamar and Data Domain.	\$ 769.00	\$ 109.00
University - IT	Entersys	Work with vendor to structure a system-wide contract that leverages combined buying power of the University. Secondary effort will focus on standardizing equipment where advantageous to do so.	\$ -	\$ -
University - IT	Fujitsu	Work with vendor to structure a system-wide contract that leverages combined buying power of the University. Secondary effort will focus on standardizing equipment where advantageous to do so.	\$ -	\$ -
University - IT	Fujitsu Maintenance	Reduced maintenance negotiated. Renewal amount \$8,000 per year with Fujitsu; negotiated a three year deal with Fujitsu for \$13,500 resulting in savings of \$10,500 during over three years. Used availability of maintenance from competitor (Oracle) as leverage in the negotiation. Existing cost below includes entire contract term.	\$ 7.00	\$ 3.50
University - IT	Help Desk Migration to STAT	Migrate Help Desk ticketing system to STAT from Heat, a Front Range product, and eliminate annual Heat maintenance contract.	\$ -	\$ 8.00
University - IT	IBM	Work with vendor to structure a system-wide contract that leverages combined buying power of the University. Secondary effort will focus on standardizing equipment where advantageous to do so.	\$ -	\$ -
University - IT	IBM (SPSS)	Goal is to increase access across the University while reducing cost per usage. Update 12/5/14: System wide contract completed. Additional investment to include all campuses covered under University site license. additional product and access for students, faculty. System contract resulted in one year cost avoidance of \$50,000	\$ 40.00	\$ -
University - IT	Identity Finder (Data Loss Prevention)	Purchased Identify Finder software tool to support data loss prevention related to personally identifiable information (PII). Rollout includes all campuses to varying degrees of completeness. Ongoing effort. Since March 2014 18 million sensitive records have been discovered; of those, 9.5 million have been remediated. While it is difficult to estimate avoided costs related to the remediated records, the Ponemon Research Organization estimated that it costs an organization about \$211 per breached record related to providing credit counseling & protection services in addition to liability related costs. This would translate to a \$2B avoided cost related to the 9.5 million remediated records. No cost avoidance dollar figures entered given the volatile and uncertain nature of this risk.	\$ -	\$ -

Legacy Projects

Category	Project Title	Description	Cost Avoidance	Cost Savings
University - IT	Identity Management Update	"Enhance security and auditing Continuation of Single Signon Ease of use and management Cost savings from above"	\$ 150.00	\$ -
University - IT	Integration Partners	Optical infrastructure HW and SW related to Umassnet rollout.	\$ 300.00	\$ -
University - IT	International Office	Software application to integrate with the Student and Exchange Visitor Information System (SEVIS)	\$ -	\$ -
University - IT	IT Reseller RFP	Issue RFP for University wide IT reseller services (exclusive of laptop/desktop, Microsoft and Adobe-products currently under contract) update 12/5/14; contract awarded to Gov Connection.	\$ 384.00	\$ 64.00
University - IT	IT Staff Augmentation Bid	University-wide bid for IT staff augmentation services including pre-defined job families with not-to-exceed rates; early pay discounts; and volume hour discounts.	\$ 300.00	\$ 38.00
University - IT	Juniper	Work with vendor to structure a system-wide contract that leverages combined buying power of the University. Secondary effort will focus on standardizing equipment where advantageous to do so.	\$ -	\$ -
University - IT	Lecture Capture software (Echo360)	Standardize lecture capture software license across all campuses converting to a site license agreement	\$ 780.00	\$ -
University - IT	Lenovo	2 extension of the Lenovo agreement with additional 3% discount on Lenovo equipment	\$ -	\$ -
University - IT	Lenovo Self Maintainer	Entered into a "self-maintainer" agreement for Lenovo desktop/laptop purchases within SO whereby Lenovo ships parts to UITS for local repair vs. sending out a Lenovo technician and/or returning device to a "repair depot" for processing. Mainly applies to laptop purchases. Self-maintainer agreement results in \$70 per repair payment from Lenovo for laptops (slightly less for desktops/peripherals). In addition, precludes the need to purchase up-front on-site warranty option costing \$63.20 for laptops (existing cost ID'd below). Also avoids productivity loss (approximately 9 days) for "repair depot" processing. The start-up fee of \$1000 for this program was waived, in addition to a bi-annual fee of \$500. See attached spreadsheet for details.	\$ 26.00	\$ -
University - IT	License & Maintenance Reductions - Ongoing	Reduction in HW/SW maintenance related to eliminated or reduced products including: Citrix, Retrofit, EIR, Oracle & Business Objects	\$ 300.00	\$ 150.00
University - IT	License & Maintenance Reductions - Ongoing	Reduction in HW/SW maintenance related to eliminated or reduced products including: Xerox, EMC, Mobius, temp help	\$ -	\$ 400.00
University - IT	License & Maintenance Reductions - Ongoing	Reduction in HW/SW maintenance related to eliminated or reduced products including: small equipment purchases, Brigadoon, Temp Help, Cognos.	\$ -	\$ 91.00
University - IT	Lightspeed Maintenance	Network maintenance reduced by analyzing # of network elements and taking action to reduce, in addition to negotiated loyalty discount.	\$ 6.00	\$ 9.00
University - IT	Math Works (Mat Lab)	5 campuses utilizing software (no use System Office). Update 12/5/14: Year two of contract, cost avoidance based on unlimited license vs. cost of individual campus licenses \$30,000	\$ 129.00	\$ -
University - IT	Metrics & PPM Programs	The metrics and portfolio project mgt programs are efficiency and quality improvement focused. By measuring progress against various KPI's and improved project mgt techniques, it is expected that this will improve UITS's overall ability to deliver quality services in a time manner.	\$ -	\$ -
University - IT	Microsoft Licensing	Complete an RFP for Microsoft licensing through re-seller (MicroSoft does not deal directly). This would include all campuses for immediate contracting and Amherst rolling into contract when current campus expires 6/2013.	\$ 106.00	\$ 64.00
University - IT	Mobile Computing	"Enhancement of the student experience by providing utilities of information not currently accessible in one place such as bus tracking, campus maps, directories by building, news and push messages Efficient and timely access to PeopleSoft data Marketing tools (walking tours, alumni news, sports)"	\$ -	\$ -
University - IT	Mobile device Optimization	Consolidate all existing University mobile devices into a shared/pooled minutes program with existing carriers: completed 5/13	\$ 1,584.00	\$ 528.00
University - IT	New Applicant Tracking System	Implement a new applicant tracking system to improve and enrich information capture & access to information to enhance decision making and provide for a more competitive recruiting process	\$ -	\$ 100.00
University - IT	Oracle Licensing Re-Negotiation		\$ 204.00	\$ -
University - IT	Oracle Maintenance Savings	Negotiated a 2% renewal increase cap on all Oracle software license/maintenance renewals. Renewals typically average 3%. This was negotiated as part of a purchase deal for additional IDM-related licenses. Total FY15 (end of year) Oracle software maintenance base is \$3,204,878, renewal cap calculated over 3 years. See attached spreadsheet for savings calculations.	\$ 192.98	\$ -
University - IT	Qualtrics - Survey Tool		\$ 70.00	\$ 10.00
University - IT	Safari Books	Purchased subscription to online technical resource data provider for \$25K in an effort to reduce employee travel & training costs.	\$ 15.00	\$ -
University - IT	Security Operations Center (SOC)	Implement and maintain, in accordance with Board policy, a comprehensive and proactive oriented information security program for the University spanning all campuses	\$ 330.00	\$ -
University - IT	Server/Storage Architecture	Change in server & storage architecture resulting in reduced hardware maintenance costs.	\$ 1,130.00	\$ -
University - IT	Shared Services Portal Expansion	Tool to improve internal University communications	\$ 10.00	\$ -
University - IT	Student Success Outcomes	"Allows campuses to better analyze and predict ""at-risk"" students Proactive measures can be utilized to assist student population and turn the risk into a success"	\$ -	\$ -

Legacy Projects

Category	Project Title	Description	Cost Avoidance	Cost Savings
University - IT	Systems Administration Improvements: System Monitoring; EMC VPLEX Technology; Network Global Site Selection; Ticket System Consolidation.	System monitoring improvements leads to much less time identifying root cause of system and application issues with improved ability to identify issues before users are impacted. VPLEX technology allows for increased up time for users while systems concurrently being upgraded. Site selection works in conjunction with DR site to simplify user access to critical systems. Ticketing system migrated all work intake to single system greatly enhancing work flow and communications across the organization.	\$ -	\$ -
University - IT	Telepresence	Develop a reliable, cost-effective videoconferencing solution for fixed and mobile devices to enhance the student experience with guest lecturing, faculty virtual office hours and specialized intra-campus course offerings	\$ 300.00	\$ -
University - IT	Terra Dotta Risk Management System	To provide a single University enterprise repository of initial information such as emergency contract and medical info for students, faculty & staff who travel domestically & abroad.	\$ -	\$ -
University - IT	Terra Dotta Study Abroad System	To provide BDL Study Abroad offices with a web-based application where students, staff, faculty and parents will find the information on study abroad opportunities.	\$ -	\$ -
University - IT	UITS Applications Management Re-Organization	Reorganization of the Business Intelligence and Applications Management areas (HCM, FIN & Student) to better align resources and work flow, and improve overall productivity, service levels and work output. See attached email for additional information. No dollar savings identified, this is a soft benefit E&E item.	\$ -	\$ -
University - IT	UMassNet	Provide scalable, cost-effective reliable high-capacity networking connectivity between campuses to the Internet, Internet2 and MGHPC	\$ -	\$ -
University - IT	UMOL Blackboard Learn9 LMS Implementation	Support UMOL campus migration from current Blackboard Vista LMS to Blackboard Learn9	\$ -	\$ -
University - IT	Virtual Computing Labs (VCL)	Provide a software solution that allows students, faculty and staff to reserve and use software any time and anywhere through a web browser	\$ 570.00	\$ -
University - IT	Virtual Desktop Initiative (VDI)	Provides for file sharing across the desktop/laptop of common software packages served over the network/internet	\$ -	\$ -
University - IT	Virtualization Strategy	Strategic shift to virtualized computer processing (racks & blades) versus traditional big box server approach.	\$ 1,281.00	\$ -
University - IT	VM Ware		\$ 1,005.00	
University - IT	Document Imaging Program Financial Aid	Created electronic workflow for campus financial aid offices, including integration points with peoplesoft and integration with 3rd party vendors	\$ 188.00	
University - IT	Employment Verification	Automated employment verification process with Equifax	\$ 55.00	\$ 60.00
University - IT	Dashboard development-multiple	Built multiple dashboards :asset mgt, time approval, security admin , spend analysis to improve reporting-data management efficiency	\$ 196.00	
University - IT	Immigration Dashboard	Coordinating multiple sources of immigration reporting into single dashboard	\$ 95.00	\$ 80.00
University - IT	Microsoft Contract Renegotiation	Migration to new contract model		
University - IT	Digital Signature RFP	System wide bid to be completed FY20		
University - IT	Anti Virus Software Bid	Final contract being negotiated		
University - IT	IBM (SPSS) Renewal		\$ 30.00	
University - IT	Mathworks 1 year extension	5 % system discount		
University - IT	Mathworks 1 year extension	New contract to be developed for FY20	\$ 86.00	
University - IT	Mobile device management 2 year contract extension	Piloted purchasing module unsuccessfully	\$ 960.00	
University - IT	Qualtrics - Survey Tool Extension	3 year extension completed		
University - IT	Turn it in-software		\$ 9.00	
University-Facilities	Roof Repair & maintenance- Pilot	Develop contract for roof repair and maintenance to provide extended warranties on selected roofs and extend roof life. Amherst \$448,000 investment extended roof life for targeted replacements	\$ 5,200.00	
University-Facilities	Deferred Maintenance	Develop and implement strategies to address deferred maintenance-metrics created to compare planned service vs. reactive service		
University-Facilities	Facilities Operations Metrics	Development of standard metrics related to facilities operations		
University-Facilities	Custodial Services	Development of standard best practices for custodial services. Amherst implementation of custodial best practices has resulted in \$1M cost reduction	\$ 1,000.00	
University-Facilities	Fleet Management Program	Review of fleet management programs; evaluation of the University wide fleet management contract with Enterprise. Amherst, Lowell, Medical School utilizing agreement. 25% reduction in maintenance. 3 year leases provide budgeting certainty		
University-Facilities	Trade Contracts	Development of standard University-wide trade contracts . Contracts completed for commissioning and retro commissioning through UMBA		
University-Facilities	Preventive Maintenance	Standardized preventive maintenance practices		
University-Facilities	Public/Private Partnerships	Review of Public/Private Partnerships . Create standards/guidelines for P3 moving forward		
University-Facilities	Facilities systems review	Forum to share current utilization/integration of facilities systems and create roadmap moving forward -best practice sharing		
University-Facilities	Program reduce paper towel use	Evaluating hand dryer systems and potential savings opportunities		
University - Purchasing	Athletics Advertising	University-wide contract w/ office supply vendors for advertising. Revenue generation for the University	\$ -	\$ 1,200.00
University - Purchasing	Copier/Printer Maintenance- Program goal convert to single vendor, multi functional devices. Align system for full bid process FY20	Xerox awarded system-wide agreement.	\$ 3,200.00	\$ 800.00
University - Purchasing	Dorm furniture-establish system wide contract	system wide agreement for dorm furniture utilizing expertise of facility, resident life managers. Form user/evaluation committee	\$ -	\$ 150.00
University - Purchasing	Dorm Mattress Bid	3 campuses combined dorm mattress purchases for 3 year period.	\$ 180.00	\$ 30.00

Legacy Projects

Category	Project Title	Description	Cost Avoidance	Cost Savings
University - Purchasing	Elevator Maintenance Contract Re-bid	Contract rebid and awarded -Fy16-Fy20	\$ 2,860.00	\$ -
University - Purchasing	Elevator Maintenance-includes 4 campuses: Lowell, Boston, Amherst, Dartmouth	Otis Elevator awarded University-wide contract	\$ 678.00	\$ 650.00
University - Purchasing	Executive Search Services	Implementing to all departments within System Office (Beginning July 2016)	\$ 270.00	\$ 90.00
University - Purchasing	IT staff augmentation	Pre-qualified list of companies (suppliers). Agreed upon terms and conditions	\$ 35.00	\$ -
University - Purchasing	Lab Supplies- Bid two primary vendors. Contract awarded to Fisher.	Fisher Scientific awarded system-wide contract for lab supplies/distribution.	\$ 800.00	\$ 200.00
University - Purchasing	Lab Supplies- Bid two primary vendors. Contract awarded to Fisher.	Fisher Scientific awarded system-wide contract for lab supplies/distribution.	\$ 160.00	\$ 160.00
University - Purchasing	Lab supplies re-bid	Exclusive Fisher	\$ 3,000.00	\$ 1,004.00
University - Purchasing	Multi-year financial planning tool	Complete contract for software planning tool that allows consistency in financial planning across all campuses. Contract completed with PFM consulting. Allows for campus and system level roll-up of financial projections. RFP process completed, low bidder not selected, however average bid price was \$310k annual vs. contracted price of \$200k annual.	\$ 550.00	\$ -
University - Purchasing	Office Supplies-includes all five campuses and the System Office	University-wide contract w/ WB Mason for office supplies.	\$ 895.00	\$ -
University - Purchasing	Office Supplies-includes all five campuses and the System Office	Contract rebid effective for FY20-FY23	\$ 4,317.00	\$ 1,200.00
University - Purchasing	Temporary help services	Bid being awarded 1/19	\$ 25.00	\$ -
University - Purchasing	Travel services. Implement travel services to include travel agency, negotiated air, hotel, auto rental contracts	Implement managed travel program		\$ 768.00
University - Purchasing	Vehicle leasing- contract completed 8/13.	Replace existing campus owned vehicles with leased vehicles	\$ -	\$ -
University - Purchasing	Waste stream management	Complete consulting contract to evaluate current waste stream management practices across the university system, including solid, hazardous waste and recycling services	\$ 130.00	\$ 130.00
University - Purchasing	Campus Audits phone & cable	Implemented campus audits of phone and cable charges; President's Office, Dartmouth, additional campuses to be implemented	\$ 18.00	\$ 111.00
University - Purchasing	eBuilder- Facilities project management software	Lowell bid, all campuses may use, savings projections for Lowell implementation	\$ 41.0	
University - Purchasing	Automated Bidding Tool-Bonfire	Bonfire tool implemented for automated bidding process		
University - Purchasing	AP Audit-Spendment	Medical School led, results for Medical School, Dartmouth, President's Office		\$ 14.00
University - Purchasing	Digital Architecture -Curriculog			
University - Purchasing	R&D software-Kuali	Amherst, Boston activated, other campuses evaluating	\$ 114.00	
University - Purchasing	Student Forms -Campus Logic	Boston, Dartmouth, Lowell	\$ 134.00	
University - Energy	Add DDC controls to Donahue, Sheehy	Add DDC BAS controls to three residence halls	\$ -	\$ -
University - Energy	AEP	Total Campus AEP	\$ 2,400.00	\$ -
University - Energy	Complete ETIC, HSSB, North Campus Garage	Two New LEED Construction buildings plus a parking garage	\$ -	\$ -
University - Energy	Electricity Bid	4 campus combined bid for electricity supply.	\$ 11,255.00	\$ -
University - Energy	energy & natural gas procurement	Bid process and hedging strategy for electricity and natural gas supply	\$ -	\$ 226.00
University - Energy	Energy conservation effort	Multi-faceted energy conservation program	\$ 2,400.00	\$ -
University - Energy	Energy efficiency projects	UMMS received \$8.5m in incentives from National Grid, resulting projects will generate \$6.8m future electric savings	\$ -	\$ 6,800.00
University - Energy	Energy performance project	\$40m energy performance project implemented by NORESO and managed through DCAM	\$ 1,600.00	\$ -
University - Energy	Energy procurement	Bid process and hedging strategy for electricity and natural gas supply	\$ -	\$ 1,180.00
University - Energy	Gas turbine generator upgrade		\$ -	\$ 1,425.00
University - Energy	Hadley Horse Farm Solar PV	2 MW Solar PV Field. Combination Net Metering / Research Project.	\$ -	\$ -
University - Energy	ICC BAS and update to new vav boxes	Update BAS to new DDC web based system	\$ -	\$ -
University - Energy	ICC fuel switch from electric to nat. gas heat	Replace older Rooftop makeup air unit using nat. gas instead of electric heat.	\$ -	\$ -
University - Energy	Install Energy Efficient Chiller - Weed	Remove Absorber and reduce GHGs and energy by replacing with Magnetic Levitation Chiller.	\$ -	\$ -
University - Energy	Install North Campus Boiler Plant	Deferred Maintenance/ Energy Project -installing 2 new dual fuel boilers, combustion controls and BAS, economizers, steam turbine BFP and Variable Speed BFPs. We will have capability to burn ULSD and Nat. Gas on all three boilers.	\$ -	\$ -
University - Energy	Installation new boiler		\$ -	\$ 165.00
University - Energy	Lamp replacement project	Replacement of 1,700 T8 fluorescent lamps	\$ -	\$ 159.00
University - Energy	Lighting Occupancy Sensors Library, Gorman Dorm Steam Line Replacement, CHP Gas Compressor Motor Eff.	Annual energy reduction project	\$ 1,140.00	\$ 570.00
University - Energy	LNG Temporary Facility	Operational 12/2012	\$ -	\$ 2,300.00
University - Energy	Multiple Lighting upgrades	Olney, Olsen, Ball, Univ. Ave Exterior	\$ -	\$ -
University - Energy	Natural gas procurement-bid process		\$ 362.00	\$ -
University - Energy	Photovoltaic arrays installation	Installation on the Tripp Athletic Center	\$ -	\$ 150.00

Legacy Projects

Category	Project Title	Description	Cost Avoidance	Cost Savings
University - Energy	Regional Anaerobic Digester	A DCAMM and MADEP effort to install a Regional Anaerobic Digester for the Amherst area on University property.	\$ -	\$ -
University - Energy	Replace Zamboni Boilers, add VFDs to AHUs and retroCx HVAC units and controls	Reduce heat and electricity by improving energy efficiency	\$ -	\$ -
University - Energy	Solar/Net Metering Contract	Reduction in energy spend through credit earned from contractual support of solar development.	\$ 8,939.00	\$ -
University - Energy	Solar/Net Metering Contract	Reduction in energy spend through credit earned from contractual support of solar development.	\$ 1,035.00	\$ -
University - Energy	Solar/Net Metering Contract	Reduction in energy spend through credit earned from contractual support of solar development.	\$ 4,475.00	\$ -
University - Energy	Solar/Net Metering Contract	Reduction in energy spend through credit earned from contractual support of solar development.	\$ 2,711.00	\$ -
University - Energy	Steam trap repair and replacement program	Replace approx 200 traps in Coburn and Mahoney and additional areas on north campus.	\$ -	\$ -
University - Energy	Wind turbine project		\$ 125.00	\$ -
University - Energy	Battery storage project-UMA	Battery energy storage facility for redundancy-back-up		
University - Energy	Battery/solar project UMB	Battery energy storage facility for redundancy-back-up		
University - Energy	Solar parking canopy project-UMA			
University - Library	Elsevier - Complete sytem wide agreement for electronic journals	Renegotiated for 2018-2023-savings upadted	\$ 656.00	\$ -
University - Library	EBSCO-Bid	System bid for subscription services		
University - Library	Equalize Access to Resources, common library platforms, shared staffing models	Lowell to Pilot "Open Athens" platform (inter campus privileging- relevant FTE licensing- student performance metrics)		
University - Library	Complete subscriptions analysis	Analyze current journals, remove duplicates , create new contract modeling		
Total			\$ 77,534	\$ 22,316
		Grand Total	\$	99,849

Appendix F-3: UPST E&E Project Listing

UPST Projects

Spend Category	Project	Total Savings
Capital	Pinanski Parking Lot Improvements	1,285,464
Capital	McCormack Hall Roof Replacement	1,109,000
Capital	Quinn Bldg Roof Replacement	834,899
Capital	Costello Basketball Suite	396,478
Capital	Brett Renovations, Phase II	350,322
Capital	Construction of 7th Floor Clinical Wing	298,559
Capital	Concordia Fire Sprinklers & Roof	289,325
Capital	Research Equipment	231,000
Capital	Ball Hall Fire Alarm Upgrades	200,305
Capital	All Other Projects - Under \$200K	2,273,151
MRO	Security Enhancement Services	200,139
MRO	Summer Janitorial	29,218
MRO	Statewide Water Treatment Services	17,410
MRO	Gas Chromatograph, Mass Spectrometer	3,606
General Services & Supplies	Transportation Contract Adjustments	4,200,000
General Services & Supplies	Contract Renegotiation with On-line Journals Provider	327,593
General Services & Supplies	Pouring Rights Project	178,600
General Services & Supplies	Revenue Generated from a Food & Beverage Contract	78,600
General Services & Supplies	Animal Medicine Protective Clothing	18,340
General Services & Supplies	Water Tunnels Project	17,845
General Services & Supplies	Room Darkening Shades	4,827
Professional Services	System-wide COVID-19 Testing	755,000
Professional Services	Admin Staff Review for CNS	297,200
Professional Services	Property Recovery	124,644
Professional Services	Costello Athletic Center Branding	67,705
Professional Services	Pest Services	16,833
Professional Services	Courier Services	4,000
Professional Services	Carpet Replacement	1,001
Professional Services	Development of on-line ordering platform	700
IT/ Telecommunications	Network Maintenance - Additional Services	1,000,000
IT/ Telecommunications	Hardware Provider MSA Negotiation	773,000
IT/ Telecommunications	ERP (Financial) System License Negotiation	454,119
IT/ Telecommunications	Network Maintenance	440,000
IT/ Telecommunications	Amherst Network Switch Maint. Cost Savings	423,789
IT/ Telecommunications	Procurement System Contract Renewal	391,392
IT/ Telecommunications	Digital Storage System Negotiation	165,000
IT/ Telecommunications	Lecture Capture Platform Negotiation	129,000
IT/ Telecommunications	All Other Projects - Under \$100K	497,498
Media & Advertising	Media Agency Contract	623,342
Total		18,508,903

Note: Active and ongoing energy projects are excluded from the project listing