

Excellence, Innovation, Impact: How UMass is Catalyzing the Commonwealth's Future

Report to the Legislature January 15, 2020



University of Massachusetts

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

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January 15, 2020

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

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

The Honorable Jeffrey Roy, 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 2019 (C.41 of the Acts of 2019) I am pleased to submit the attached report required by budget line item 7100-0200 for UMass to present:

“...to the chairs of the house and senate committees on ways and means and the chairs of the joint committee on higher education to review: (i) its 5-year projected spending plan for academic years 2020 through 2025, 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...”

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

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

I look forward to working with you to serve the citizens of the Commonwealth as the University continues its ascent in national rankings.

Sincerely,

Martin T. Meehan, President
University of Massachusetts

Kumble R. Subbaswamy, Chancellor
UMass Amherst

Katherine S. Newman, Interim Chancellor
UMass Boston

Robert E. Johnson,
UMass Dartmouth

Jacqueline F. Moloney, Chancellor
UMass Lowell

Michael F. Collins, Chancellor
UMass Medical School

Attachment: Report to Legislature per Chapter 41 of the Acts of 2019



Excellence, Innovation, Impact:

How UMass is Catalyzing the Commonwealth's Future

Report to the Legislature
January 15, 2020

EXECUTIVE SUMMARY

Introduction

The University of Massachusetts system delivers an excellent return on investment for the Commonwealth, with outstanding educational and employment outcomes for a growing number of its students and transformational economic benefits for the state.

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. All of our campuses 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, fulfilling the university's commitment to affordability and funding additional investments in student support and academic quality that further enhance student success.

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. As a matter of practice, UMass annually produces multiple public reports at the system and campus levels. These are detailed in Appendix E of this report and are available online.

As we approach the 30th anniversary in 2021 of the Legislature's bold and visionary creation of what is today's five-campus UMass system, five key findings emerge from this report:

1. UMass quality and reputation are being recognized.

UMass is demonstrating excellence and being recognized for quality by prospective students and their families as well as the university's peers and rating services around the country.

- Enrollment has grown 4.2% since FY16.
- Enrollment of Massachusetts residents has grown 5.3% since FY16.
- SAT and GPA scores of incoming students are rising.
- Every campus has moved up in NATIONAL rankings:
 - The University of Massachusetts System is ranked No. 63 on the Reuters list of “the World’s Most Innovative Universities”
 - UMass Amherst is ranked the No. 24 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 the top medical school in New England for primary care education (No. 15 nationally), according to U.S. News & World Report, and is No. 14 among public medical schools in NIH funding.
 - First-year enrollment at 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.

Per-student state funding for UMass has declined 15.6% since FY10 in non-inflation adjusted dollars while enrollment has increased.

- Graduates from every UMass campus make a higher salary than at least 60 percent of graduates from of all other Massachusetts colleges and universities.
- UMass has increased its commitment to institutionally-funded financial aid from \$236 million in FY15 to \$347 million in FY19.

- UMass has built UMassOnline into a \$116 million enterprise to break down barriers of time and distance for students. This is poised to grow in coming years.
- Each of our campuses has high quality programming serving veterans.

3. UMass has a profound economic impact on Massachusetts.

UMass is a powerful economic engine for the Commonwealth and each of its regions. It is the premier catalyst for attracting, developing, and retaining talent in Massachusetts.

- UMass generated a \$6.2 billion annual economic impact in Massachusetts in FY16 - a 10-to-1 return on investment for the Commonwealth. Updated impact data are expected in early 2020.
- UMass is the 3rd largest employer in Massachusetts, supporting a non-student workforce of nearly 17,000 people while spinning off approximately 30,000 non-UMass jobs.
- With the third-largest research enterprise in Massachusetts behind only Harvard and MIT, the university's \$651 million in annual research and development drives innovation and fosters economic development in all corners of the state.
- UMass conducts 17% 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 two-tenths of 1 percent of the university's payroll) has helped UMass attract and retain highly talented professionals and world-class faculty.
- Two-thirds 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. Bold leadership and innovative stewardship are keeping UMass financially strong.

Embracing the challenge put forth by the Saxon Commission and the Commonwealth in creating the UMass system three decades ago, UMass has built and continues to develop high-impact efficiencies across the five campuses.

UMass has adopted a relentless approach to maximizing efficiencies (a unique strength of the integrated UMass system), allowing for investments in financial aid, student services, and academic quality.

- Moody's, Fitch, and S&P have all independently affirmed the university's strong financial position, citing "excellent strategic positioning that incorporates strengthened fiscal oversight," an "expectation that UMass' financial profile will remain resilient," and "sound management and governance oversight, with comprehensive long-term strategic plans" in assigning strong ratings in December 2019.
- The UMass Efficiency and Effectiveness initiatives are projected to save the University \$124 million cumulatively by 2024.
- 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 the creation of UMassOnline (\$116 million in revenue) and acquisition of Bayside property near the Boston campus (\$12-to-\$1 return on investment) are producing academic and financial benefits.
- Confronting a \$4.4 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.

5. UMass values transparency.

For more than two decades, UMass and its Board of Trustees has been working in partnership with the Administration and Legislature to embrace a public reporting system that provides the Commonwealth and its citizens the ability to monitor the financial and academic health of the university. These reports, available at www.UMassP.edu, include, but are not limited to, several years of:

- 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

The next decade will be a time of disruption for public and private higher education in Massachusetts and around the country. UMass, with its ability to be innovative and collaborative, is well-positioned to confront these challenges while continuing to fulfill its critical mission of serving Massachusetts through its education, research, and community service activities.

Because birth rates plunged during the Great Recession of 2008 - 2010, the steady recent decline in overall population of college-aged students will only accelerate in the second half of this decade. Across New England—where we have both the nation’s highest concentration of colleges and the lowest fertility rates -- projections show that New England will have 32,000 to 54,000 fewer college-aged students than now.

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. Massachusetts is home to one million adults who have begun, but not finished, their college degrees. They represent an extraordinary pool of talent and potential that UMass, through our affordability, accessibility, and range of educational offerings, is uniquely positioned to serve. With our quality, affordability, and scale, as documented in this report, UMass is poised to both confront the fast-emerging demographic challenges and the state’s workforce challenges.

For decades, the UMass system has proven that we can effectively manage fiscal and demographic challenges and continue to grow even stronger in terms of educational quality and financial stability. The university has taken the 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 enter begin a new decade.

#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)



- 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

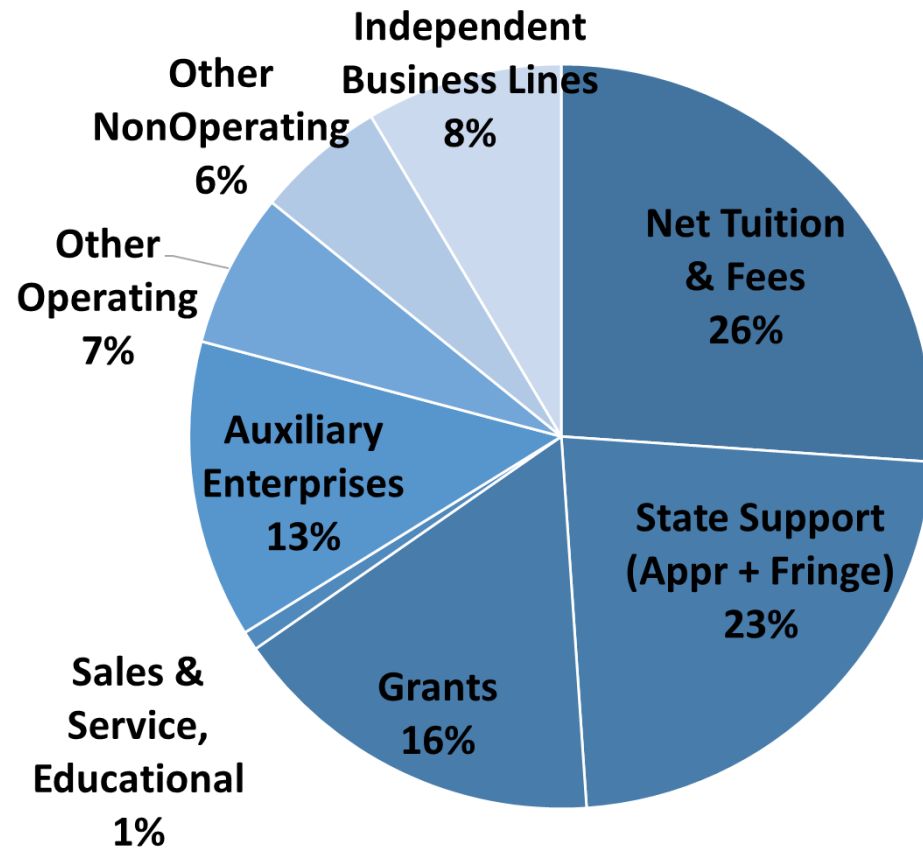
About UMass: Size, Impact, and Scope

- UMass has a \$3.5 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. and 68th globally according to Reuters
- UMass conducts 17 percent of all research in Massachusetts
- 727 degree programs offered
- 75,064 students by headcount, 66,006 FTE students
- 24,000 employees (including students) making UMass the 3rd largest employer in Massachusetts

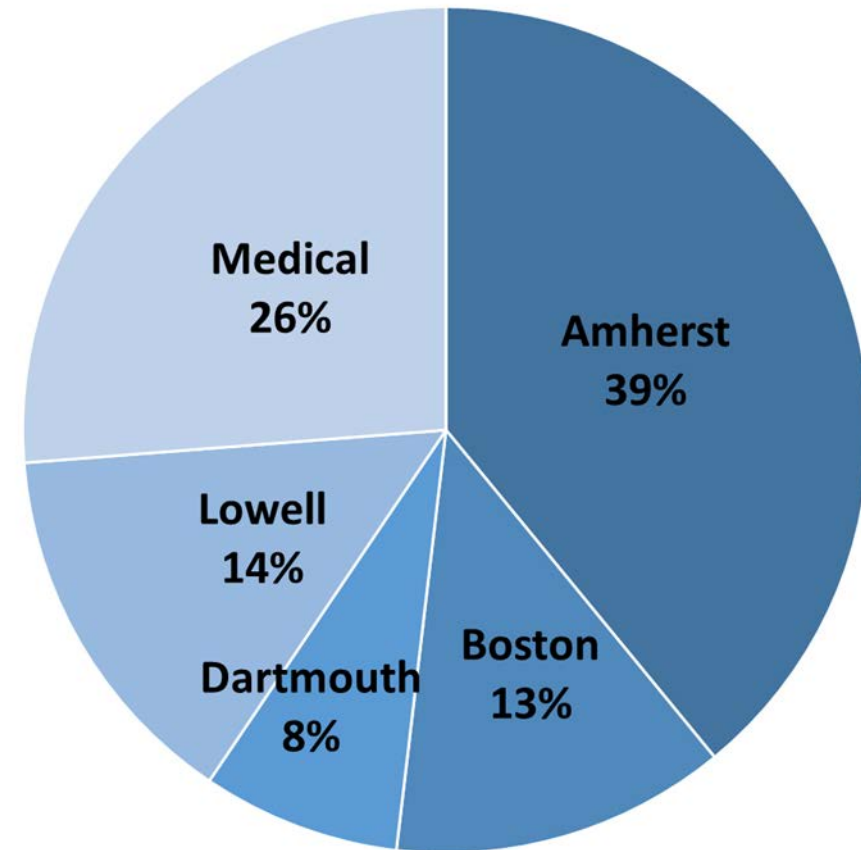
About UMass: Total Revenue = \$3.528 Billion

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

FY20 Revenue By Type

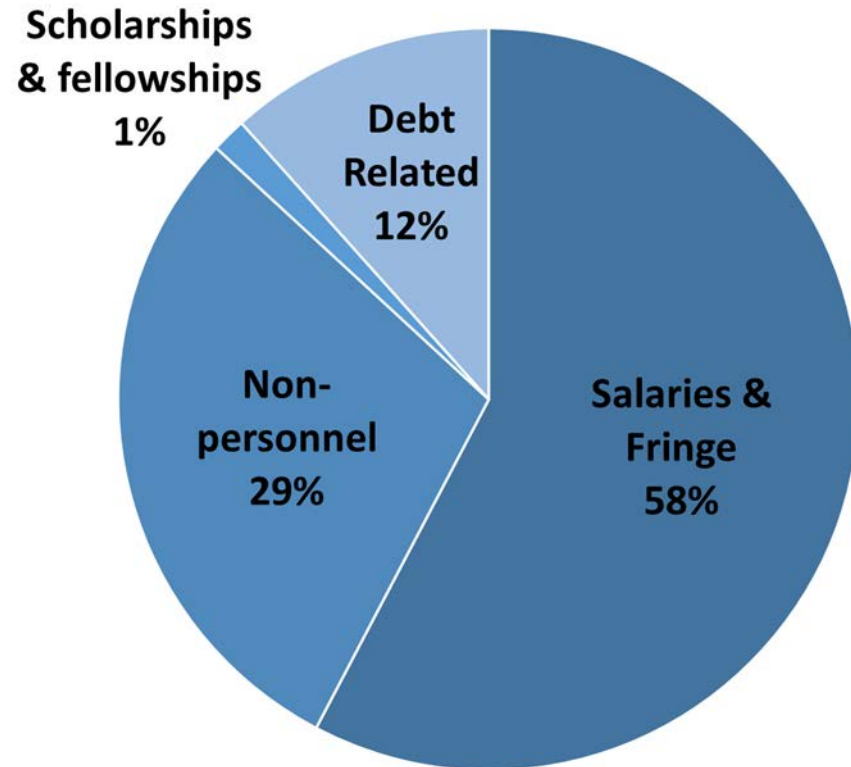


FY20 Revenue By Campus

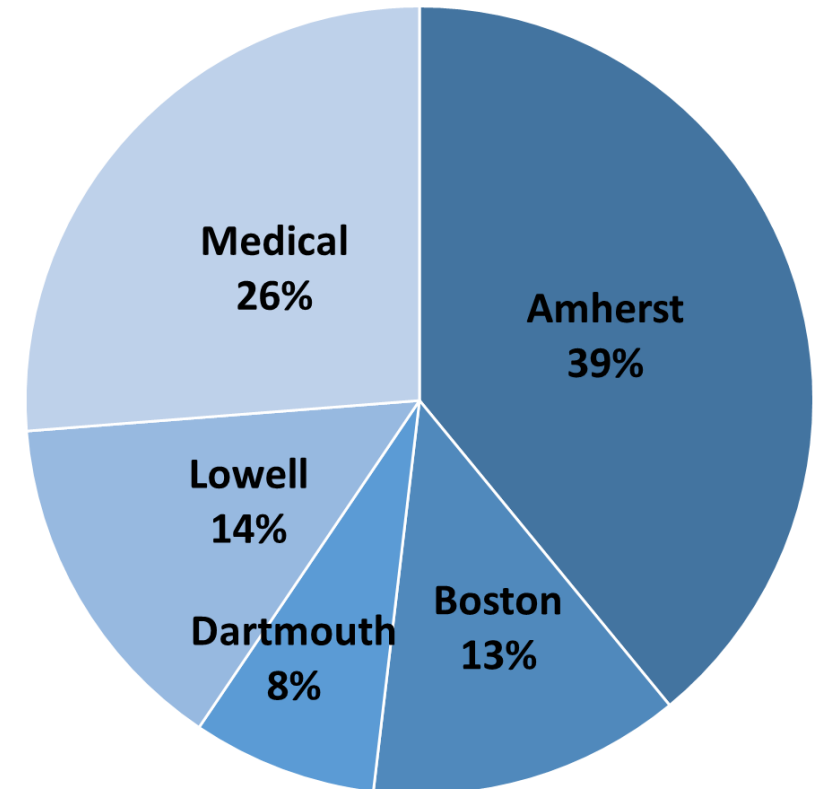


About UMass: Total Expenses = \$3.483 Billion

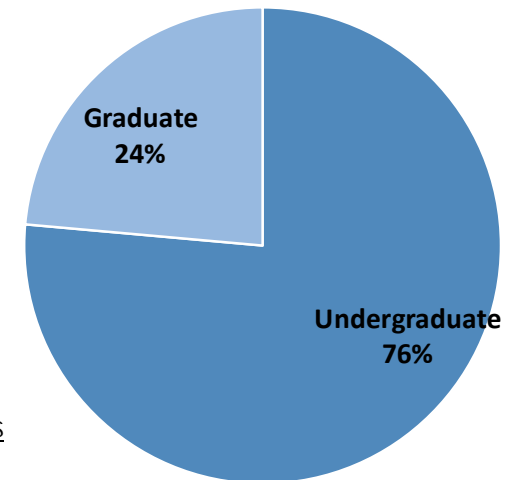
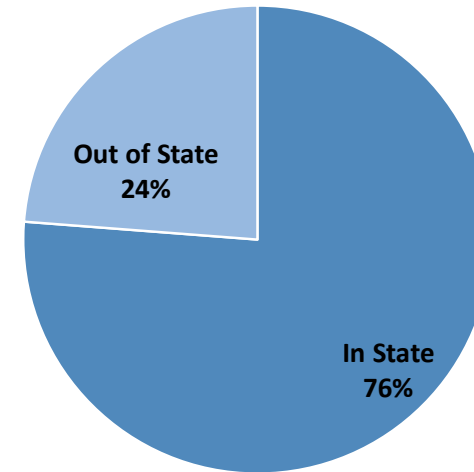
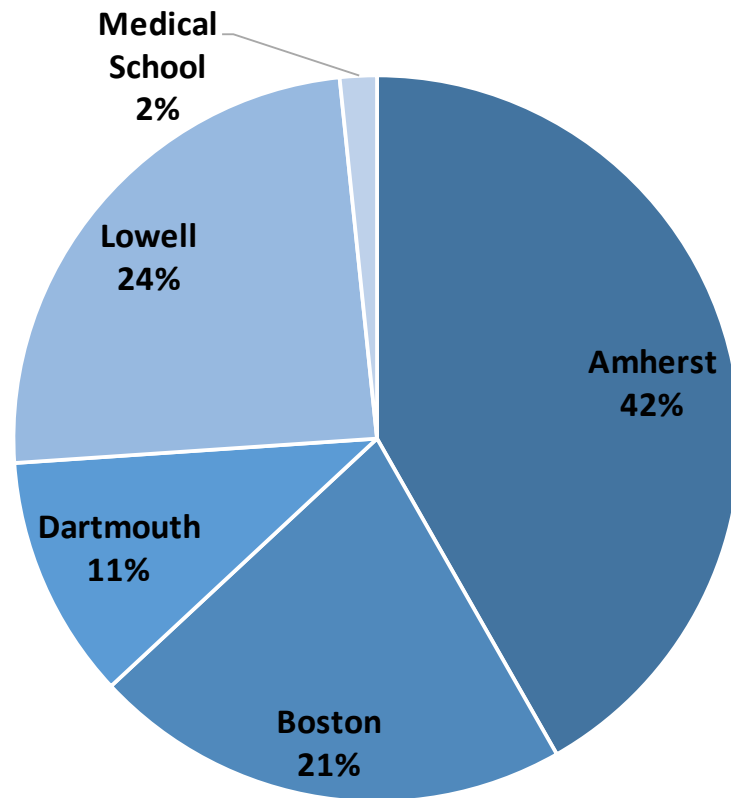
FY20 Expenses By Type



FY20 Expenses By Campus



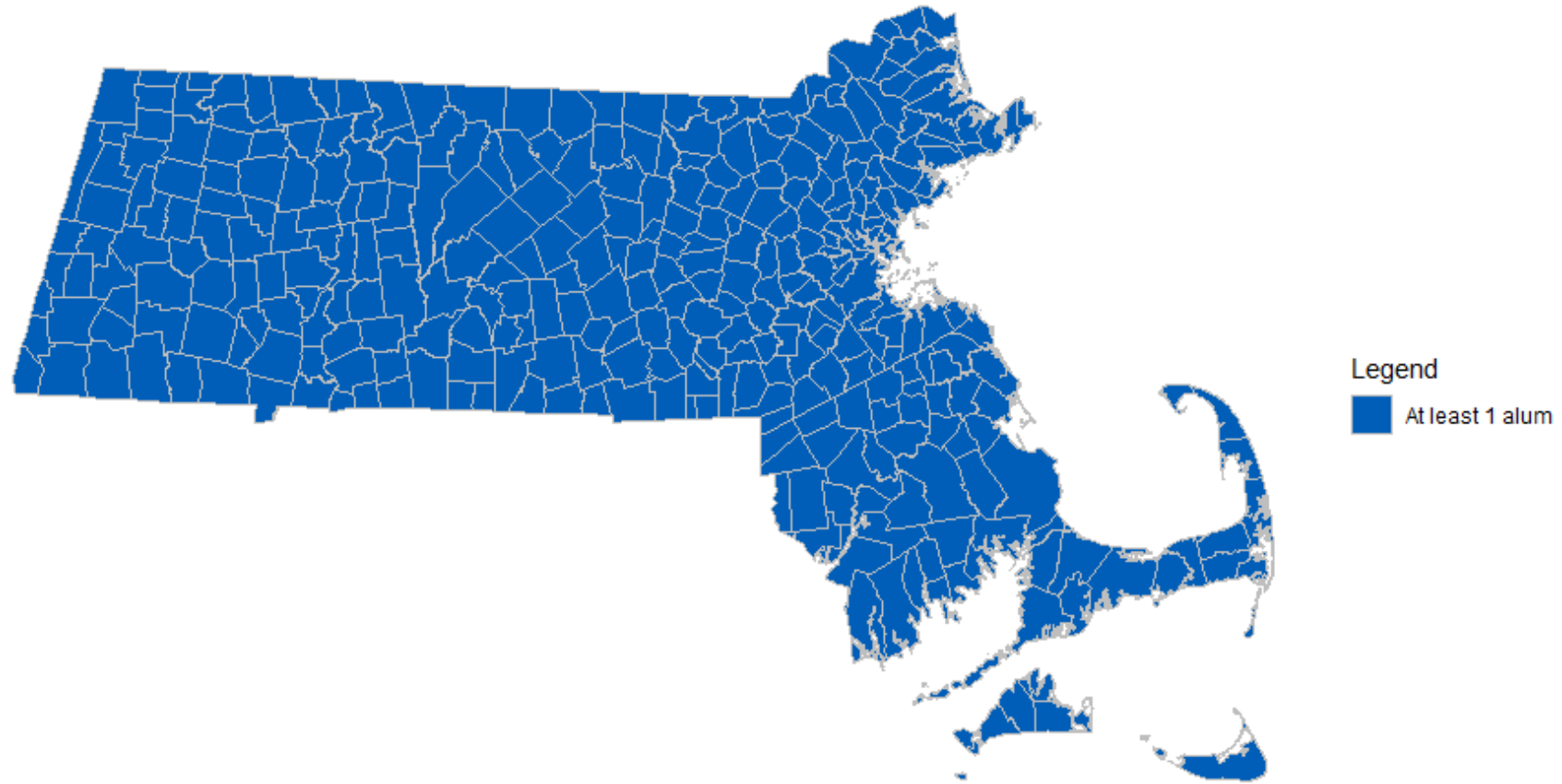
About UMass: Total Enrollment = 75,064 Students



Enrollment in this graph is based upon student headcount. There are 66,005 Student full-time equivalents (FTEs) which are used for financial the various financial projections used throughout this report.

UMass Reaches Every Corner of the Commonwealth

All 351 cities and towns in Massachusetts are home to UMass alumni.



Data: Jan 2020 UMass Office of Advancement

UMass Financial Accountability Framework

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



Standard processes designed to provide reasonable assurance regarding the achievement of objectives

Reliable, timely information that is accessible and understandable

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

UMass Framework for Financial Accountability

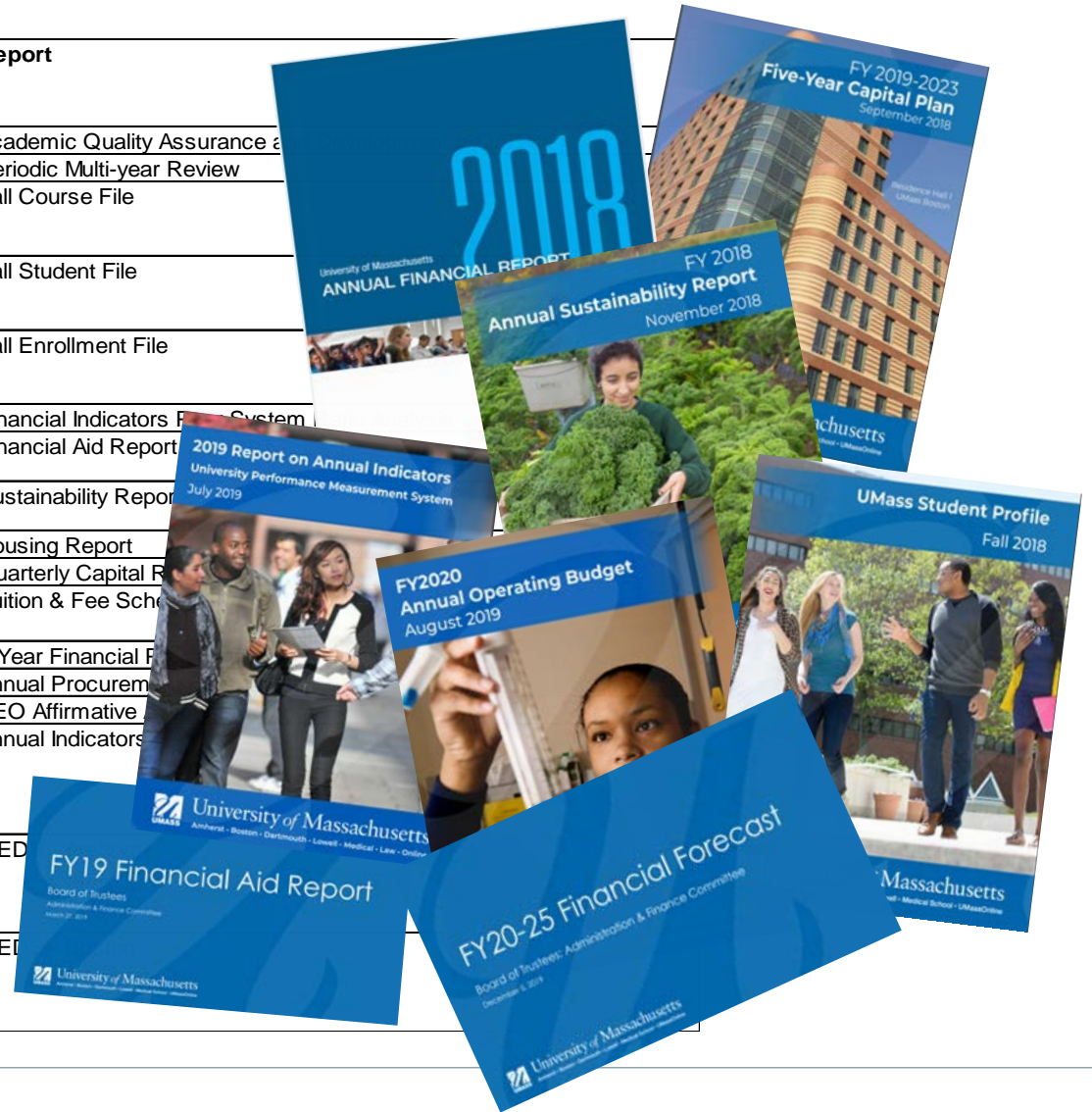
UMass has strengthened its long-term fiscal outlook by adopting a new framework for financial accountability and continues to operate according to best practices.

- Multi-year financial forecasts, revised annually, enable the university to evaluate current and future fiscal conditions and guide policy and programmatic decisions.
- Quarterly projections evaluate in-year trends and enable the university to monitor performance and make operational adjustments to meet budget targets.
- Real time student data tracking improves the university's analytic capabilities – including the ability to quickly observe trends that may impact the bottom line.
- The university has committed to increased transparency by publishing detailed financial reports on its website.
- Creative, high-impact cost containment strategies are implemented and tracked annually
- The reserve policy enables the university to mitigate unforeseen events, address deferred maintenance, advance university priorities, and maintain strong credit ratings.

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



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#2. FY19 Financial Results & FY20 Budget



University of Massachusetts

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FY19 Financial Results

UMass FY19 Financial Highlights

Year over year results are strong (FY18 vs FY19). UMass ended the year better than budget and continued to grow its operating margin.

- University revenue of \$3.4 billion is \$47 million (1.4%) over last year
- Year end operating margin of \$92.8 million or 2.7% before Governmental Accounting Standards Board adjustments (GASB)
 - \$55.3 million more than budget
- Unrestricted net position increased \$104.5 million or 10.7%
- Total investments rose to \$1.4 billion, 9.2% over last year

UMass FY19 Audited Financial Results

Operating margin improved to \$92.8 million or 2.7% in FY19 before required GASB adjustments.

System	Actual	Actual
<i>\$ in Thousands</i>	FY2019	FY2018
Total Operating Revenue	2,453,354	2,468,814
State Appropriations, including the Star Store	782,921	754,594
Other Nonoperating Income	231,505	198,340
Less Unrealized Gains	(18,082)	(5,558)
Total OM Revenue	3,449,698	3,416,190
Operating Expenses, excluding impact from GASB 68 & 75	3,240,701	3,221,660
Interest on Indebtedness	116,217	115,851
Total OM Expenses	3,356,918	3,337,511
Surplus / (Deficit)	92,780	78,679
Operating Margin Ratio	2.7%	2.3%
Net increase in expense - GASB 68	16,317	30,173
Net increase in expense - GASB 75	13,772	48,559
Surplus / (Deficit)	62,691	(53)
Operating Margin Ratio including GASB 68/75	1.8%	0.0%

Note: GASB 68 and 75 are accounting and financial reporting requirements related to pension and post-retirement benefits respectively issued by the Governmental Accounting Standards Board

UMass FY19 Budget to Actual Comparison

UMass finished FY19 with better-than-budgeted financial results.

<i>(Dollars in Thousands)</i>	FY2019 BUDGET				FY2019 Actual				Actual
	Total Revenue	Total Expenses	OM\$	OM%	Total Revenue	Expenses	OM\$	OM%	vs. BUDGET OM\$ Change
Amherst	1,293,962	1,282,143	11,819	0.9%	1,333,206	1,296,843	36,363	2.7%	24,544
Boston	436,501	436,501	0	0.0%	434,863	430,968	3,895	0.9%	3,895
Dartmouth	262,883	260,074	2,809	1.1%	258,776	255,118	3,658	1.4%	849
Lowell	473,410	470,143	3,267	0.7%	482,786	476,652	6,134	1.3%	2,867
Medical School	892,288	874,386	17,902	2.0%	898,882	867,033	31,849	3.5%	13,947
Central	116,597	114,965	1,632	1.4%	122,842	111,961	10,881	8.9%	9,249
Total (1)	3,401,347	3,363,919	37,428	1.1%	3,449,681	3,356,901	92,780	2.7%	55,353

(1) Total Expenses does not include Actual FY19 GASB 68, at \$16.3 million, or GASB 75, at \$13.7 million.

FY20 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?

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

- ✓ **FY20 Budget was developed using FY19 actuals through Q3 – the best available information at the time**
- ✓ **Budget was presented to the Board on August 2nd.**

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:

- ✓ [FY20 Budget document](#)



FY20 Budgeted Revenue & Expenses by Category

<i>(\$ in Thousands)</i>										UNIVERSITY	
Revenues	Actual					Budget	Q3 Proj	Budget	FY20 Budget vs FY19 Projection		
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	\$	%	
Gross Tuition & Fees	939,019	987,384	1,070,841	1,136,540	1,185,826	1,237,733	1,219,621	1,263,315	43,694	3.6%	
Tuition Discounts	(201,186)	(222,164)	(244,025)	(288,708)	(311,947)	(328,164)	(328,023)	(342,748)	(14,725)	4.5%	
<i>Discount Rate</i>	<i>21.4%</i>	<i>22.5%</i>	<i>22.8%</i>	<i>25.4%</i>	<i>26.3%</i>	<i>26.5%</i>	<i>0.0%</i>	<i>27.1%</i>	<i>27.1%</i>		
Net Tuition & Fees	740,116	765,220	826,816	847,832	874,825	909,569	891,598	920,567	28,969	3.2%	
Grants	511,694	510,741	528,352	560,081	560,990	560,862	567,918	579,454	11,536	2.0%	
Sales & Service, Educational	21,792	25,601	27,500	28,910	30,591	27,230	29,219	29,350	131	0.4%	
Auxiliary Enterprises	349,485	362,193	383,281	400,822	416,733	434,685	439,375	456,696	17,321	3.9%	
Other Operating	250,665	136,954	307,286	233,717	311,119	234,955	225,417	236,776	11,359	5.0%	
State appropriations	570,618	621,200	669,748	720,817	751,894	760,518	776,249	805,515	29,266	3.8%	
Other Non Operating	214,767	147,801	162,741	195,089	197,142	186,568	192,521	199,096	6,574	3.4%	
Independent Business Lines	335,527	312,077	330,259	371,618	274,555	294,013	269,087	301,131	32,044	11.9%	
Total Revenues	2,994,664	2,881,786	3,235,982	3,358,886	3,417,849	3,408,400	3,391,385	3,528,585	137,200	4.0%	
% Growth		-3.8%	12.3%	3.8%	1.8%	-0.3%	-0.8%	4.0%			
<i>(\$ in Thousands)</i>										UNIVERSITY	
Expenses	Actual					Budget	Q3 Proj	Budget	FY20 Budget vs FY19 Projection		
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2019	FY2020	\$	%	
Salaries & Fringe	1,579,542	1,659,054	1,788,018	1,847,346	1,901,896	1,962,973	1,946,286	2,011,769	65,483	3.4%	
Non-personnel	975,060	852,900	1,067,226	1,018,600	1,088,019	942,706	943,612	1,013,968	70,355	7.5%	
Scholarships and fellowships	51,177	49,300	44,645	47,706	50,402	54,639	53,137	52,996	(142)	-0.3%	
Depreciation	204,121	221,043	240,864	249,669	261,417	278,941	275,931	286,093	10,162	3.7%	
Interest	89,496	100,332	105,276	110,069	115,851	124,659	122,177	119,112	(3,065)	-2.5%	
Total Expenses	2,899,396	2,882,686	3,211,563	3,237,351	3,336,260	3,363,919	3,341,144	3,483,937	142,793	4.3%	
% Growth		-0.6%	11.4%	0.8%	3.1%	0.8%	0.1%	4.3%			

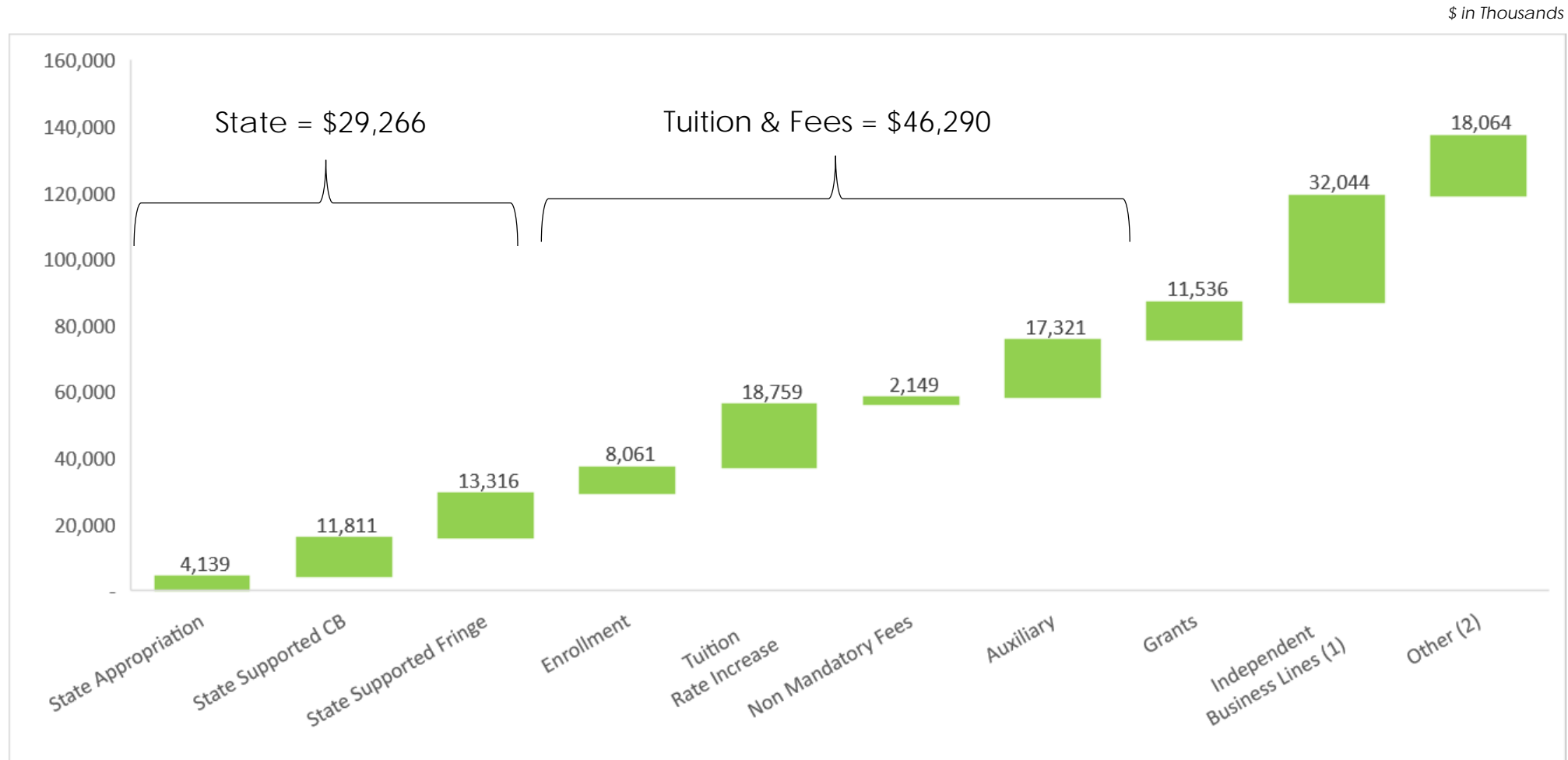
FY20 Budget by Campus

To ensure sufficient reserves, the FY20 budget includes a 1.1% or \$38.3 million operating margin.

<i>(\$ in Thousands)</i>		FY2020 BUDGET		
Campus	Total Revenue	Total Expenses	OM\$	OM%
Amherst	1,353,748	1,340,857	12,892	1.0%
Boston	442,523	442,523	-	0.0%
Dartmouth	265,733	263,887	1,846	0.7%
Lowell	498,589	495,813	2,776	0.6%
Medical School	907,996	889,903	18,093	2.0%
President's Office	132,526	129,844	2,682	2.0%
Total (1)	3,522,225	3,483,937	38,288	1.1%

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

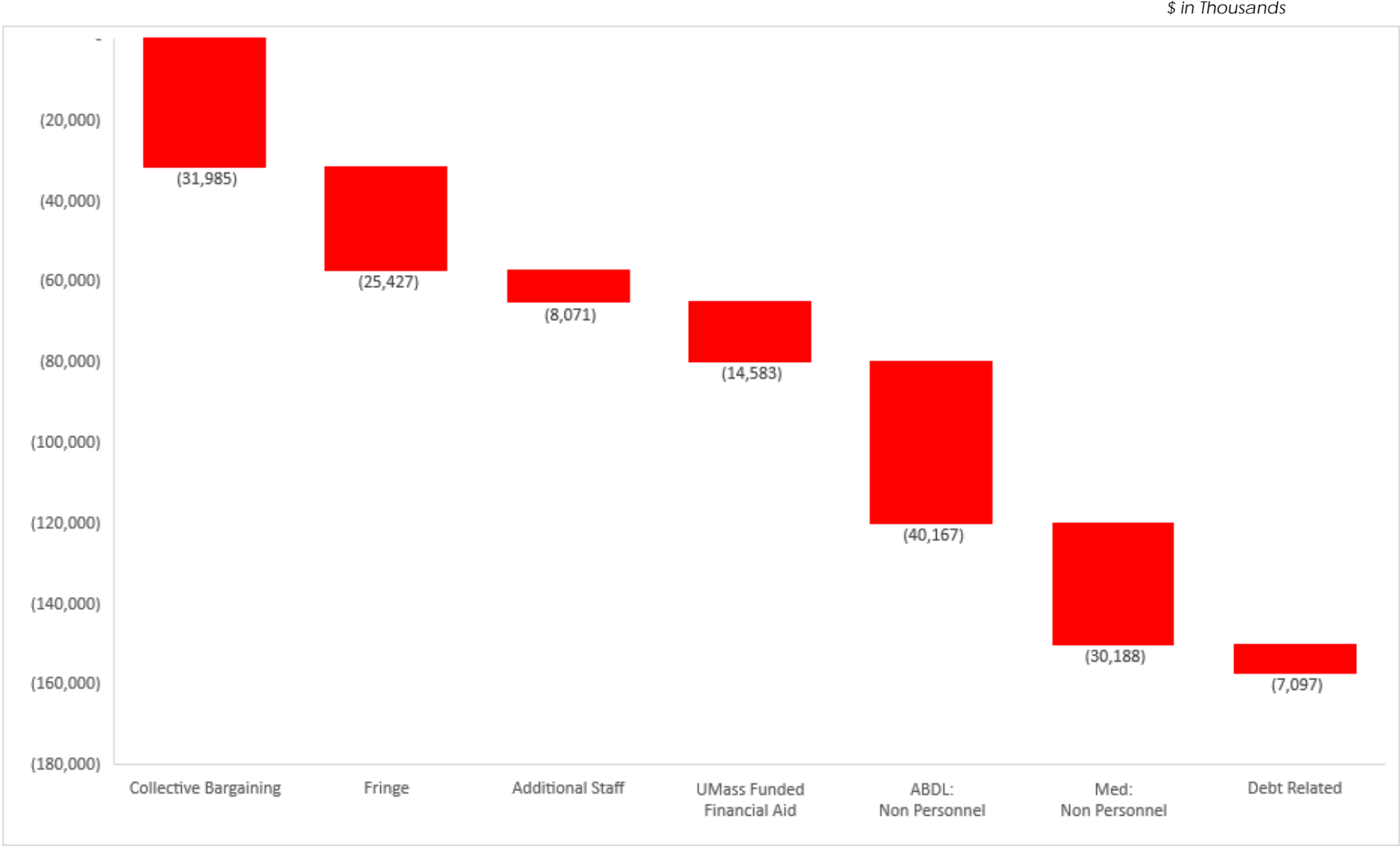
FY20 Budgeted Revenue Growth = \$137 million or 4.0%



(1) Medical School: Mass Biologics and Commonwealth Medicine

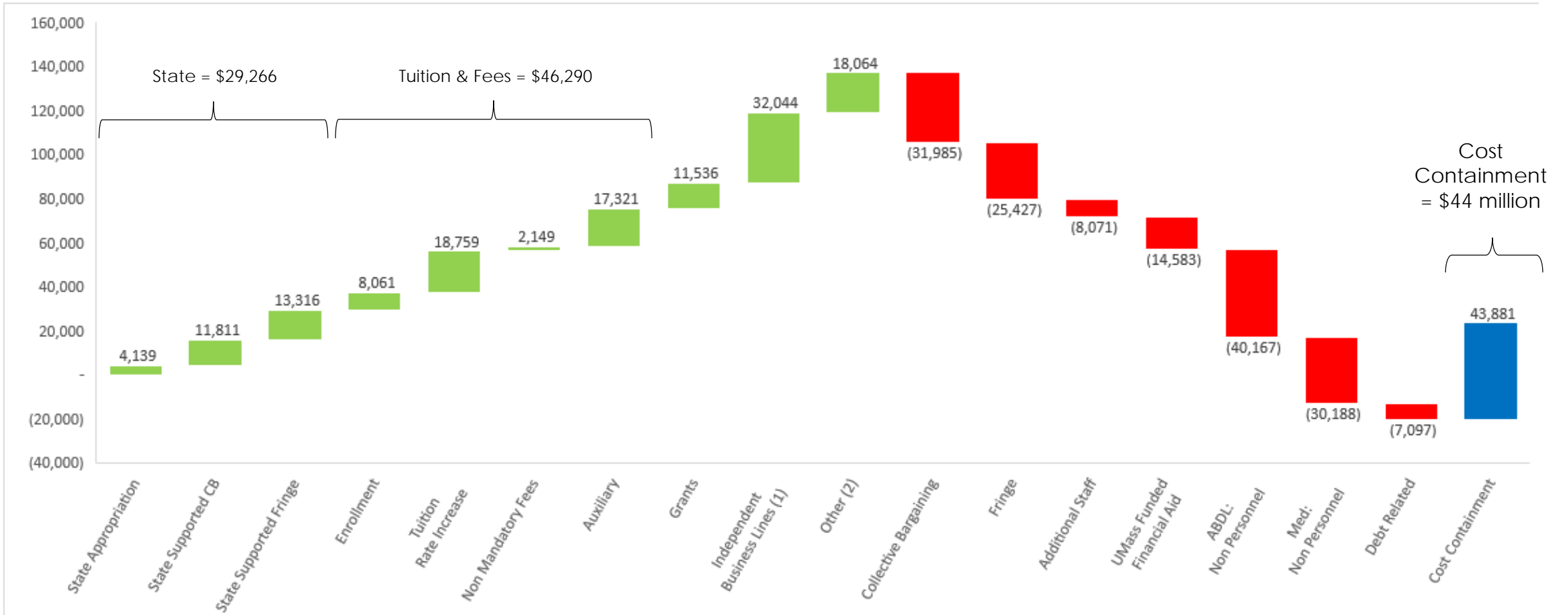
(2) Other includes gifts, investment return and other miscellaneous revenue at Amherst, Boston, Dartmouth, Lowell

FY20 Budgeted Expense Growth = \$143 million or 4.3%



FY20 Budgeted Revenue and Expense Growth

Results in an Operating Margin of \$38 million or 1.1% after accounting for approximately \$44 million in cost containment efforts



(1) Medical School: Mass Biologics and Commonwealth Medicine

(2) Other includes gifts, investment return and other miscellaneous revenue at Amherst, Boston, Dartmouth, Lowell

UMass Budgeted Operating Margin of 1.1%

While positive, the University's operating margin is below the Board directed 2% and is below many of our peers.

Increased Revenue = \$137 million (4.0%)

Increased Expense = \$143 million (4.3%)

Cost Containment = \$44 million

Operating Margin = \$38 million (1.1%)

Necessary Cost Containment

In order to meet Board approved budgets, campuses must actively manage their budgets through creative, high-impact cost containment strategies.

- Budgeted operating margin at each campus requires implementation plans
- Managing staff levels (filled and vacant)
- Review of discretionary costs (re-evaluating contracts for savings, reviewing services like transportation, facility operations for opportunities, delaying maintenance plans)
- Detailed plans to be reported quarterly to track budget to actual results

<i>\$ in Thousands</i>	Total
Amherst	6,040
Boston	14,256
Dartmouth	4,803
Lowell	9,930
Medical School	11,000
Total	46,028

\$46 million in cost containment strategies have been identified to realize \$44 million in savings needed to achieve the Board approved operating margin

FY20 Q1 Projection



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

FY20 Budget: Q1 Report

UMass is tracking favorably to the Board approved FY20 budget.

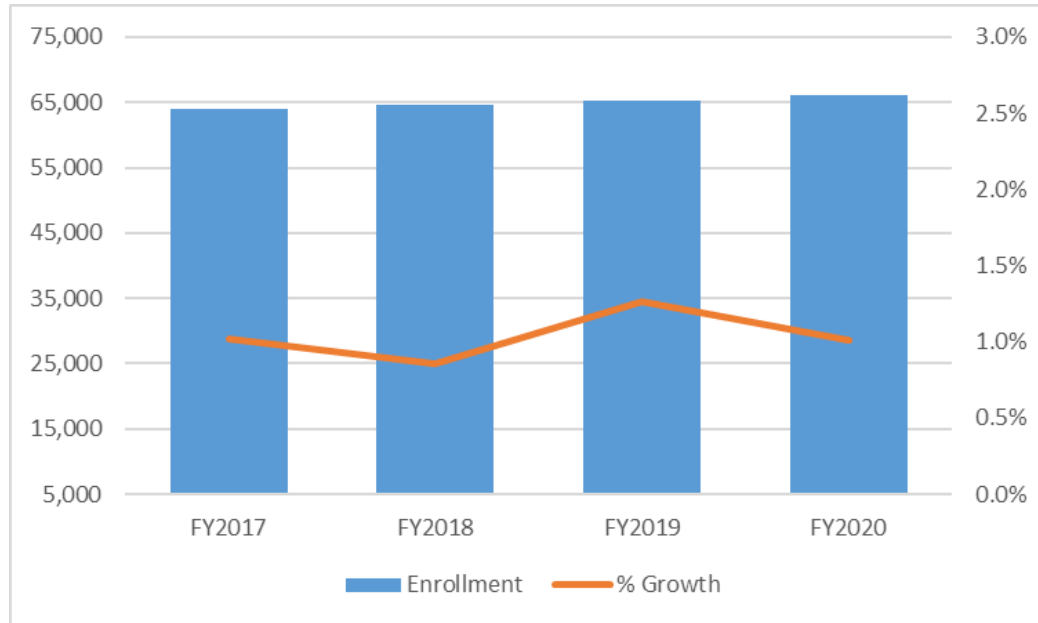
<i>(Dollars in Thousands)</i>	FY2020 BUDGET				Q1 FY2020 PROJECTION				PROJECTION vs. BUDGET
	Total Revenue	Total Expenses	OM\$	OM%	Total Revenue	Total Expenses	OM\$	OM%	OM\$ Change
Amherst	1,353,748	1,340,857	12,892	1.0%	1,378,046	1,357,814	20,232	1.5%	7,340
Boston	442,523	442,523	0	0.0%	445,647	445,647	0	0.0%	0
Dartmouth	265,733	263,887	1,846	0.7%	254,286	256,226	(1,940)	-0.8%	(3,786)
Lowell	498,589	495,813	2,776	0.6%	497,574	494,798	2,776	0.6%	0
Medical School	907,996	889,903	18,093	2.0%	907,996	889,903	18,093	2.0%	0
Central	132,526	129,844	2,682	2.0%	133,353	130,713	2,640	2.0%	(42)
Total	3,522,225	3,483,937	38,288	1.1%	3,536,483	3,494,682	41,802	1.2%	3,513

(1) Total Expenses does not include GASB 68, estimated at \$16 million or GASB 75, estimated at \$13 million.

- Presented to the Board in December, the accuracy of projections improve throughout the fiscal year as additional data is available and analyzed.
- UMass is actively managing the UMass Dartmouth projected deficit.

FY20 Budgeted Enrollment: Q1 Report

Actual enrollment performed better than budget and continues to grow over the previous year, although results vary by campus



Students FTEs	FY19	FY20 (Budget)	FY20 (Actual)	Actual vs. Budget
Amherst	29,051	29,326	29,808	482
Boston	13,213	13,134	13,241	107
Dartmouth	7,330	7,291	6,971	(320)
Lowell	14,601	14,862	14,790	(72)
Subtotal	64,195	64,613	64,810	197
Medical School	1,153	1,203	1,195	(8)
University	65,348	65,816	66,005	190
<i>Growth Rate</i>		<i>0.7%</i>	<i>1.0%</i>	

#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 2019	Δ VS FALL 2018	Δ VS FALL 2015
APPLICANTS	76.9K	▲ 3.5%	▲ 13.8%
ADMITS	52.9K	▲ 6.7%	▲ 27.2%
ENROLLS	11.5K	▲ 6.4%	▲ 23.1%

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 2019	Δ VS FALL 2018	Δ VS FALL 2015
APPLICANTS	9.4K	▼ 13.5%	▼ 5.6%
ADMITS	7.2K	▼ 7.2%	▼ 6.6%
ENROLLS	4.2K	▼ 7.8%	▼ 16.4%

UMass Undergraduate Enrollment

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

UNDERGRADUATE ENROLLMENTS			
METRIC	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
HEADCOUNT	57.4K	▲ 0.5%	▲ 2.0%
FTE	53.1K	▲ 0.9%	▲ 4.5%

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.

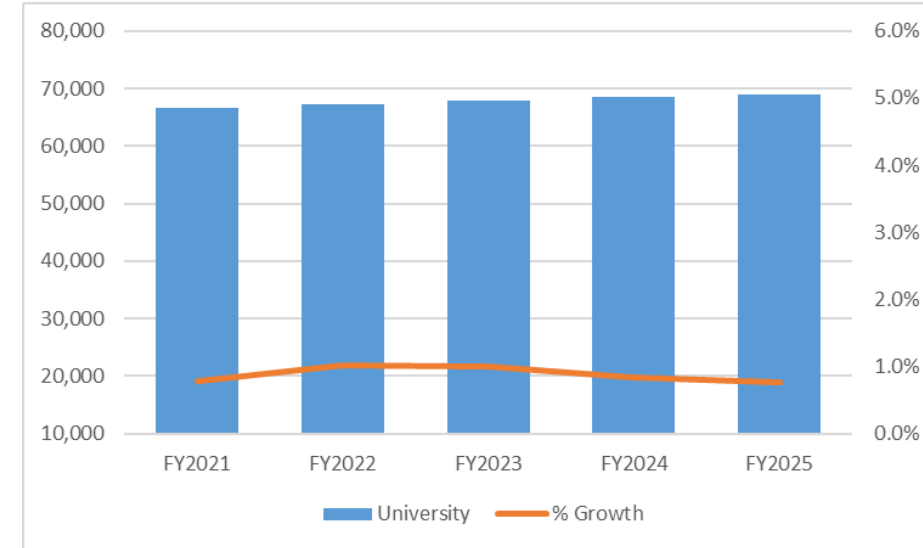
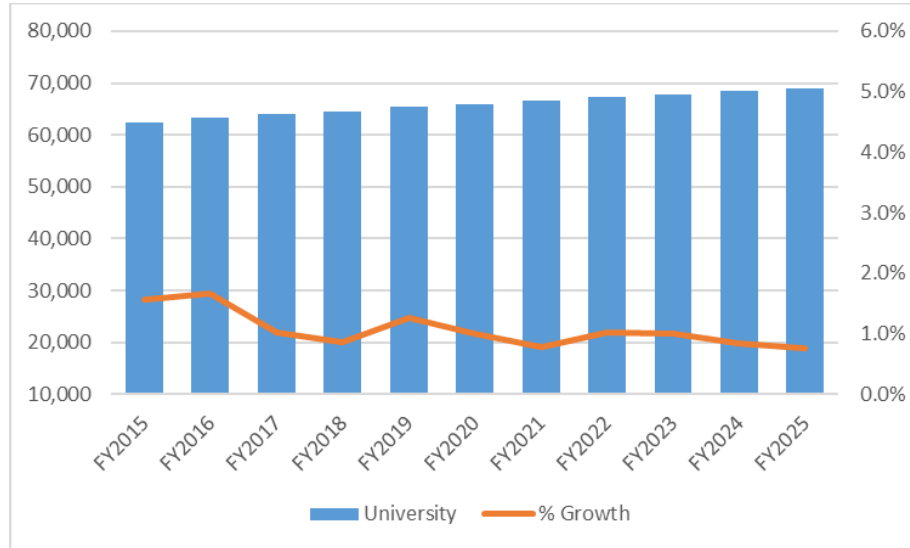
GRADUATE ENROLLMENTS

METRIC	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
HEADCOUNT	17.7K	▲ 0.4%	▲ 1.2%
FTE	12.9K	▲ 1.4%	▲ 3.0%

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

UMass Enrollment Trend

Despite national and regional demographic trends, UMass enrollment continues to increase at a steady pace.



Students FTEs	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Amherst	27,098	27,696	28,340	28,712	29,051	29,808	30,213	30,641	31,063	31,361	31,605
Boston	12,833	13,195	13,101	13,036	13,213	13,241	13,247	13,254	13,262	13,270	13,278
Dartmouth	7,930	7,766	7,558	7,286	7,330	6,971	6,853	6,860	6,865	6,878	6,893
Lowell	13,369	13,620	13,910	14,422	14,601	14,790	15,005	15,230	15,462	15,701	15,937
Subtotal	61,230	62,277	62,909	63,456	64,195	64,810	65,318	65,985	66,652	67,211	67,713
% Growth	1.7%	1.7%	1.0%	0.9%	1.2%	1.0%	0.8%	1.0%	1.0%	0.8%	0.7%
Medical School	1,071	1,056	1,070	1,074	1,153	1,195	1,207	1,221	1,232	1,247	1,265
University	62,301	63,333	63,979	64,530	65,348	66,005	66,524	67,206	67,884	68,457	68,978
% Growth	1.6%	1.7%	1.0%	0.9%	1.3%	1.0%	0.8%	1.0%	1.0%	0.8%	0.8%

Source: Actuals from student profile.

Review: Enrollment by Residency

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

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

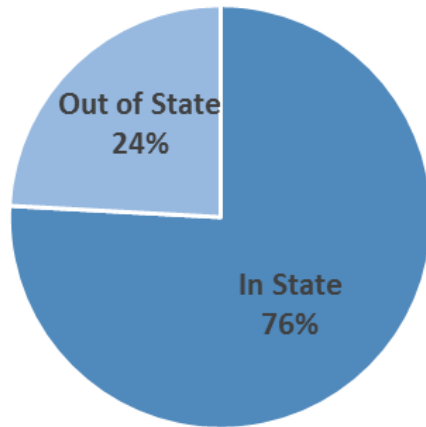
Boston Students (FTEs)	Actual				
	FY2016	FY2017	FY2018	FY2019	FY2020
In State	10,254	10,155	10,249	10,576	10,639
% Change		-1.0%	0.9%	3.2%	0.6%
Out of State	2,941	2,946	2,788	2,637	2,602
% Change		0.2%	-5.4%	-5.4%	-1.3%
Total	13,195	13,101	13,036	13,213	13,241
% Change		-0.7%	-0.5%	1.4%	0.2%

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

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

Forecast: Enrollment by Residency

FY20 Enrollment by Residency



University	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Students (FTEs)						
In State	50,072	50,333	50,775	51,192	51,568	51,913
% Change	1.4%	0.5%	0.9%	0.8%	0.7%	0.7%
Out of State	15,934	16,191	16,430	16,692	16,890	17,065
% Change	-0.3%	1.6%	1.5%	1.6%	1.2%	1.0%
Total	66,005	66,524	67,206	67,884	68,457	68,978
% Change	1.0%	0.8%	1.0%	1.0%	0.8%	0.8%

Amherst	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Students (FTEs)						
In State	20,743	20,973	21,222	21,429	21,585	21,709
% Change	3.6%	1.1%	1.2%	1.0%	0.7%	0.6%
Out of State	9,065	9,240	9,419	9,633	9,776	9,896
% Change	0.3%	1.9%	1.9%	2.3%	1.5%	1.2%
Total	29,808	30,213	30,641	31,063	31,361	31,605
% Change	2.6%	1.4%	1.4%	1.4%	1.0%	0.8%

Boston	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Students (FTEs)						
In State	10,639	10,643	10,649	10,654	10,659	10,665
% Change	0.6%	0.0%	0.0%	0.1%	0.1%	0.1%
Out of State	2,602	2,603	2,606	2,608	2,611	2,613
% Change	-1.3%	0.1%	0.1%	0.1%	0.1%	0.1%
Total	13,241	13,247	13,254	13,262	13,270	13,278
% Change	0.2%	0.0%	0.1%	0.1%	0.1%	0.1%

Dartmouth	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Students (FTEs)						
In State	5,820	5,663	5,665	5,672	5,680	5,690
% Change	-6.0%	-2.7%	0.0%	0.1%	0.1%	0.2%
Out of State	1,151	1,190	1,195	1,193	1,198	1,203
% Change	1.1%	3.4%	0.4%	-0.2%	0.4%	0.4%
Total	6,971	6,853	6,860	6,865	6,878	6,893
% Change	-4.9%	-1.7%	0.1%	0.1%	0.2%	0.2%

Lowell	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Students (FTEs)						
In State	12,080	12,255	12,438	12,628	12,823	13,016
% Change	2.4%	1.5%	1.5%	1.5%	1.5%	1.5%
Out of State	2,711	2,750	2,792	2,834	2,878	2,921
% Change	-3.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Total	14,790	15,005	15,230	15,462	15,701	15,937
% Change	1.3%	1.5%	1.5%	1.5%	1.5%	1.5%

Source: Actuals from student profile.

Review: Enrollment by Degree Path

University Students (FTEs)	Actual				
	FY2016	FY2017	FY2018	FY2019	FY2020
Undergraduate	47,525	47,720	48,298	49,356	50,014
% Change		0.4%	1.2%	2.2%	1.3%
Graduate	8,861	8,962	9,076	9,036	9,000
% Change		1.1%	1.3%	-0.4%	-0.4%
Continuing Ed	2,337	2,371	2,160	1,808	1,286
Online Only	4,441	4,768	4,812	4,949	5,460
% Change		5.3%	-2.3%	-3.1%	-0.2%
Law School	170	157	184	199	246
% Change		-7.6%	16.7%	8.4%	23.6%
Total	63,334	63,978	64,530	65,348	66,005
% Change		1.0%	0.9%	1.3%	1.0%

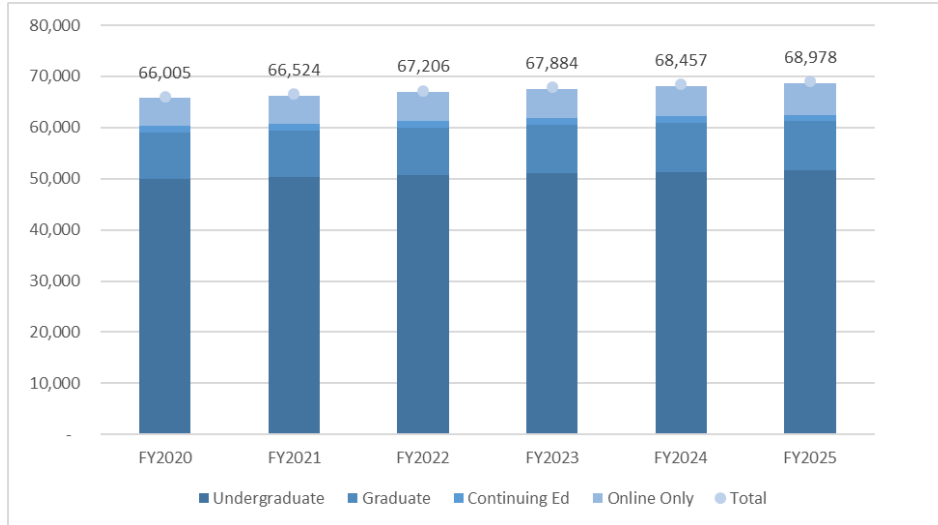
Amherst Students (FTEs)	Actual				
	FY2016	FY2017	FY2018	FY2019	FY2020
Undergraduate	22,169	22,588	22,643	22,945	23,680
% Change		1.9%	0.2%	1.3%	3.2%
Graduate	3,417	3,496	3,708	3,772	3,736
% Change		2.3%	6.1%	1.7%	-0.9%
Continuing Ed	464	428	472	417	313
Online Only	1,647	1,827	1,888	1,917	2,079
% Change		6.8%	4.7%	-1.1%	2.5%
Total	27,697	28,339	28,711	29,051	29,808
% Change		2.3%	1.3%	1.2%	2.6%

Boston Students (FTEs)	Actual				
	FY2016	FY2017	FY2018	FY2019	FY2020
Undergraduate	9,657	9,529	9,835	10,256	10,280
% Change		-1.3%	3.2%	4.3%	0.2%
Graduate	1,876	1,816	1,802	1,714	1,771
% Change		-3.2%	-0.8%	-4.9%	3.3%
Continuing Ed	829	939	697	715	419
Online Only	833	818	703	528	769
% Change		5.7%	-20.3%	-11.2%	-4.4%
Total	13,195	13,101	13,036	13,213	13,241
% Change		-0.7%	-0.5%	1.4%	0.2%

Dartmouth Students (FTEs)	Actual				
	FY2016	FY2017	FY2018	FY2019	FY2020
Undergraduate	6,149	5,861	5,582	5,600	5,261
% Change		-4.7%	-4.8%	0.3%	-6.1%
Graduate	755	763	698	594	536
% Change		1.1%	-8.5%	-14.9%	-9.8%
Continuing Ed	429	436	508	391	279
Online Only	263	340	315	546	649
% Change		12.1%	6.0%	13.9%	-1.0%
Law School	170	157	184	199	246
% Change		-7.6%	16.7%	8.4%	23.6%
Total	7,766	7,558	7,286	7,330	6,971
% Change		-2.7%	-3.6%	0.6%	-4.9%

Lowell Students (FTEs)	Actual				
	FY2016	FY2017	FY2018	FY2019	FY2020
Undergraduate	9,550	9,742	10,239	10,555	10,792
% Change		2.0%	5.1%	3.1%	2.2%
Graduate	1,757	1,817	1,794	1,804	1,761
% Change		3.4%	-1.3%	0.6%	-2.4%
Continuing Ed	614	567	484	285	274
Online Only	1,699	1,784	1,906	1,957	1,963
% Change		1.6%	1.7%	-6.2%	-0.2%
Total	13,620	13,910	14,423	14,601	14,790
% Change		2.1%	3.7%	1.2%	1.3%

Forecast: Enrollment by Degree Path



University	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Students (FTEs)						
Undergraduate	50,014	50,294	50,738	51,107	51,352	51,584
% Change	1.3%	0.6%	0.9%	0.7%	0.5%	0.5%
Graduate	9,000	9,115	9,256	9,395	9,538	9,634
% Change	-0.4%	1.3%	1.5%	1.5%	1.5%	1.0%
Continuing Ed	1,286	1,265	1,269	1,273	1,278	1,282
% Change	-0.2%	1.4%	1.3%	2.4%	2.4%	2.4%
Online Only	5,460	5,574	5,659	5,820	5,988	6,161
% Change	23.6%	12.2%	2.5%	1.8%	4.5%	5.0%
Total	66,005	66,524	67,206	67,884	68,457	68,978
% Change	1.0%	0.8%	1.0%	1.0%	0.8%	0.8%

Source: Actuals from student profile.

Amherst	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Students (FTEs)						
Undergraduate	23,680	23,960	24,240	24,440	24,510	24,570
% Change	3.2%	1.2%	1.2%	0.8%	0.3%	0.2%
Graduate	3,736	3,861	3,961	4,061	4,161	4,211
% Change	-0.9%	3.3%	2.6%	2.5%	2.5%	1.2%
Continuing Ed	313	313	313	313	313	313
Online Only	2,079	2,079	2,127	2,249	2,377	2,511
% Change	2.5%	0.0%	2.0%	5.0%	5.0%	5.0%
Total	29,808	30,213	30,641	31,063	31,361	31,605
% Change	2.6%	1.4%	1.4%	1.4%	1.0%	0.8%

Boston	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Students (FTEs)						
Undergraduate	10,280	10,280	10,280	10,280	10,280	10,280
% Change	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Graduate	1,771	1,771	1,771	1,771	1,771	1,771
% Change	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Continuing Ed	419	419	419	419	419	419
Online Only	769	777	784	792	800	808
% Change	-4.4%	0.6%	0.6%	0.7%	0.7%	0.7%
Total	13,241	13,247	13,254	13,262	13,270	13,278
% Change	0.2%	0.0%	0.1%	0.1%	0.1%	0.1%

Dartmouth	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Students (FTEs)						
Undergraduate	5,261	5,105	5,105	5,105	5,105	5,105
% Change	-6.1%	-3.0%	0.0%	0.0%	0.0%	0.0%
Graduate	536	490	490	490	490	490
% Change	-9.8%	-8.6%	0.0%	0.0%	0.0%	0.0%
Continuing Ed	279	255	255	255	255	255
Online Only	649	727	727	727	727	727
% Change	-1.0%	5.8%	0.0%	0.0%	0.0%	0.0%
Law School	246	276	283	288	301	316
% Change	23.6%	12.2%	2.5%	1.8%	4.5%	5.0%
Total	6,971	6,853	6,860	6,865	6,878	6,893
% Change	-4.9%	-1.7%	0.1%	0.1%	0.2%	0.2%

Lowell	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Students (FTEs)						
Undergraduate	10,792	10,949	11,113	11,282	11,457	11,629
% Change	2.2%	1.5%	1.5%	1.5%	1.5%	1.5%
Graduate	1,761	1,787	1,814	1,841	1,870	1,898
% Change	-2.4%	1.4%	1.5%	1.5%	1.5%	1.5%
Continuing Ed	274	278	282	286	291	295
Online Only	1,963	1,991	2,021	2,052	2,084	2,115
% Change	-0.2%	1.4%	1.5%	1.5%	1.5%	1.5%
Total	14,790	15,005	15,230	15,462	15,701	15,937
% Change	1.3%	1.5%	1.5%	1.5%	1.5%	1.5%

Review: Undergraduate Enrollment by New & Continuing

University	Actual				
	FY2016	FY2017	FY2018	FY2019	FY2020
Undergraduate (FTEs)					
New	13,273	13,132	13,708	14,735	15,472
% Change		-1.1%	4.4%	7.5%	5.0%
Continuing	34,253	34,588	34,589	34,621	34,541
% Change		1.0%	0.0%	0.1%	-0.2%
Undergraduate Total	47,526	47,720	48,297	49,356	50,013
% Change		0.4%	1.2%	2.2%	1.3%

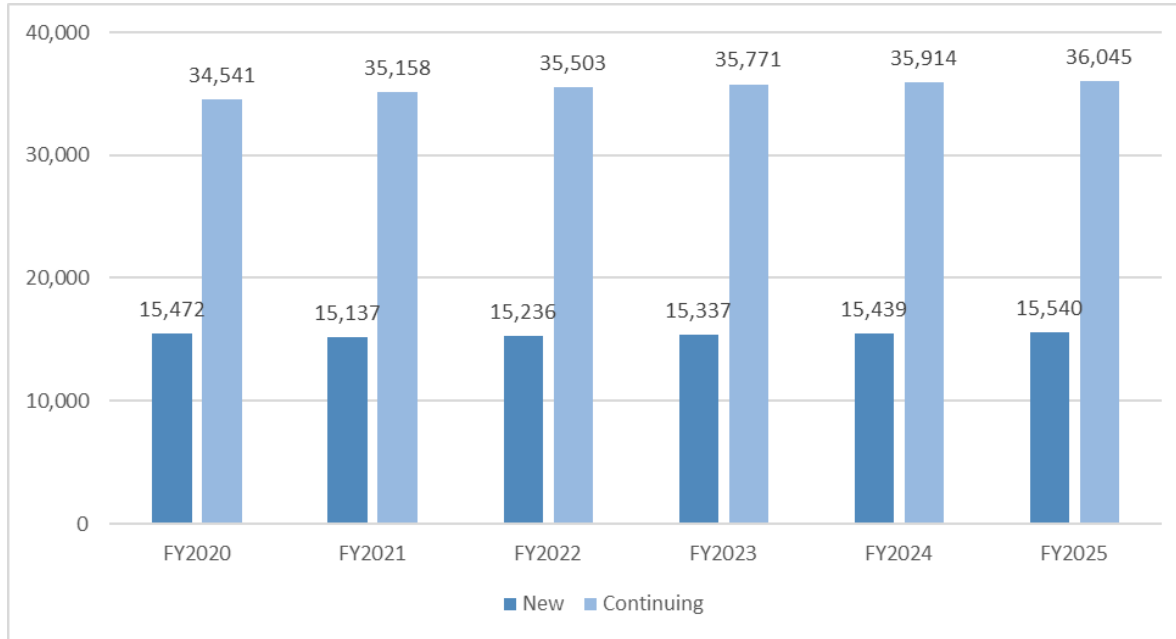
Amherst	Actual				
	FY2016	FY2017	FY2018	FY2019	FY2020
Undergraduate (FTEs)					
New	6,100	6,184	6,182	6,535	7,284
% Change		1.4%	0.0%	5.7%	11.5%
Continuing	16,069	16,404	16,461	16,411	16,396
% Change		2.1%	0.3%	-0.3%	-0.1%
Undergraduate Total	22,169	22,588	22,643	22,945	23,680
% Change		1.9%	0.2%	1.3%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

Boston	Actual					
	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020
Undergraduate (FTEs)						
New	2,695	2,612	2,995	3,344	4,173	3,244
% Change		-3.1%	14.7%	11.6%	24.8%	-3.0%
Continuing	6,962	6,917	6,838	6,912	8,961	7,036
% Change		-0.6%	-1.1%	1.1%	29.6%	1.8%
Undergraduate Total	9,657	9,529	9,834	10,256	13,134	10,280
% Change		-1.3%	3.2%	4.3%	28.1%	0.2%

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

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

Forecast: Undergraduate Enrollment by New & Continuing



University	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Undergraduate (FTEs)						
New	15,472	15,137	15,236	15,337	15,439	15,540
% Change	5.0%	-2.2%	0.7%	0.7%	0.7%	0.7%
Continuing	34,541	35,158	35,503	35,771	35,914	36,045
% Change	-0.2%	1.8%	1.0%	0.8%	0.4%	0.4%
Undergraduate Total	50,013	50,295	50,739	51,108	51,352	51,585
% Change	1.3%	0.6%	0.9%	0.7%	0.5%	0.5%

Source: Actuals from student profile.

Amherst	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Undergraduate (FTEs)						
New	7,284	6,884	6,934	6,984	7,034	7,084
% Change	11.5%	-5.5%	0.7%	0.7%	0.7%	0.7%
Continuing	16,396	17,076	17,306	17,456	17,476	17,486
% Change	-0.1%	4.1%	1.3%	0.9%	0.1%	0.1%
Undergraduate Total	23,680	23,960	24,240	24,440	24,510	24,570
% Change	3.2%	1.2%	1.2%	0.8%	0.3%	0.2%

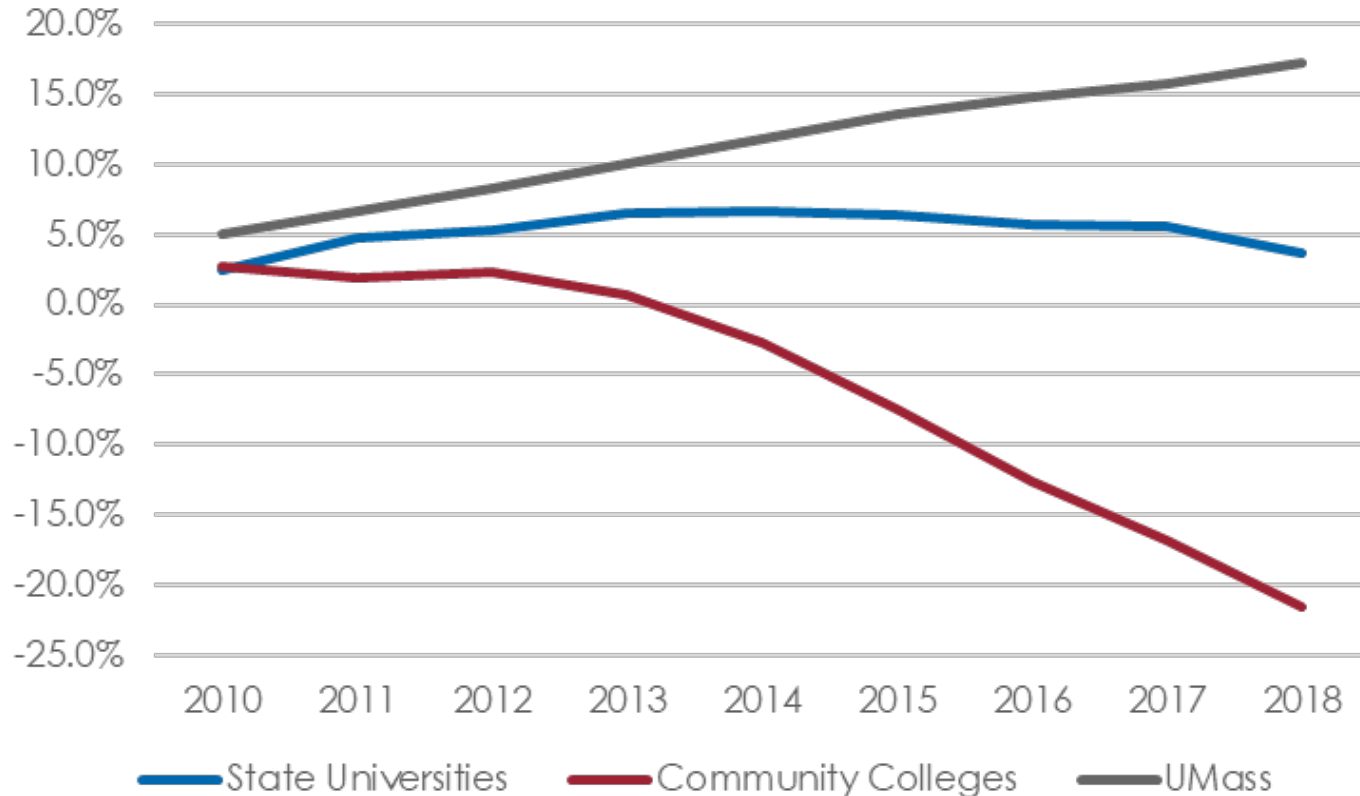
Boston	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Undergraduate (FTEs)						
New	3,244	3,244	3,244	3,244	3,244	3,244
% Change	-3.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Continuing	7,036	7,036	7,036	7,036	7,036	7,036
% Change	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Undergraduate Total	10,280	10,280	10,280	10,280	10,280	10,280
% Change	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%

Dartmouth	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Undergraduate (FTEs)						
New	1,721	1,739	1,739	1,739	1,739	1,739
% Change	-6.1%	1.1%	0.0%	0.0%	0.0%	0.0%
Continuing	3,540	3,367	3,367	3,367	3,367	3,367
% Change	-6.0%	-4.9%	0.0%	0.0%	0.0%	0.0%
Undergraduate Total	5,261	5,106	5,106	5,106	5,106	5,106
% Change	-6.1%	-2.9%	0.0%	0.0%	0.0%	0.0%

Lowell	Actual		Forecast			
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Undergraduate (FTEs)						
New	3,223	3,270	3,319	3,370	3,422	3,473
% Change	6.4%	1.5%	1.5%	1.5%	1.5%	1.5%
Continuing	7,569	7,679	7,794	7,913	8,035	8,156
% Change	0.6%	1.5%	1.5%	1.5%	1.5%	1.5%
Undergraduate Total	10,792	10,949	11,113	11,282	11,457	11,629
% Change	2.2%	1.5%	1.5%	1.5%	1.5%	1.5%

Massachusetts State University, Community College, and UMass Enrollments

Cumulative Percent Change 2010 - 2018



UMass:

Cumulative Percent Change: **17.2%**
Average Annual Percent Change: **1.8%**

State Universities:

Cumulative Percent Change: **3.7%**
Average Annual Percent Change: **0.4%**

Community Colleges:

Cumulative Percent Change: **-21.5%**
Average Annual Percent Change: **-2.6%**

#4. Economic Impact of UMass



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.

38%

of undergraduates
are students of
color

150

Countries of origin

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.

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.

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: 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 collecting warm coats for the needy, raising money for cancer research, creating business plans for non-profit organizations and volunteering with the state police search-and-rescue team.

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 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.

2,700

Veterans are enrolled at UMass

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

UMass has high quality programs for veterans, particularly online.

Best online programs for veterans³:

3

Top 25 ranked
Online Graduate
Business/ MBA
Programs

#2

Ranked Online
Master's in
Criminal Justice
(Lowell)

2

Top 25 ranked
Online
Bachelor's
Programs

#3

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

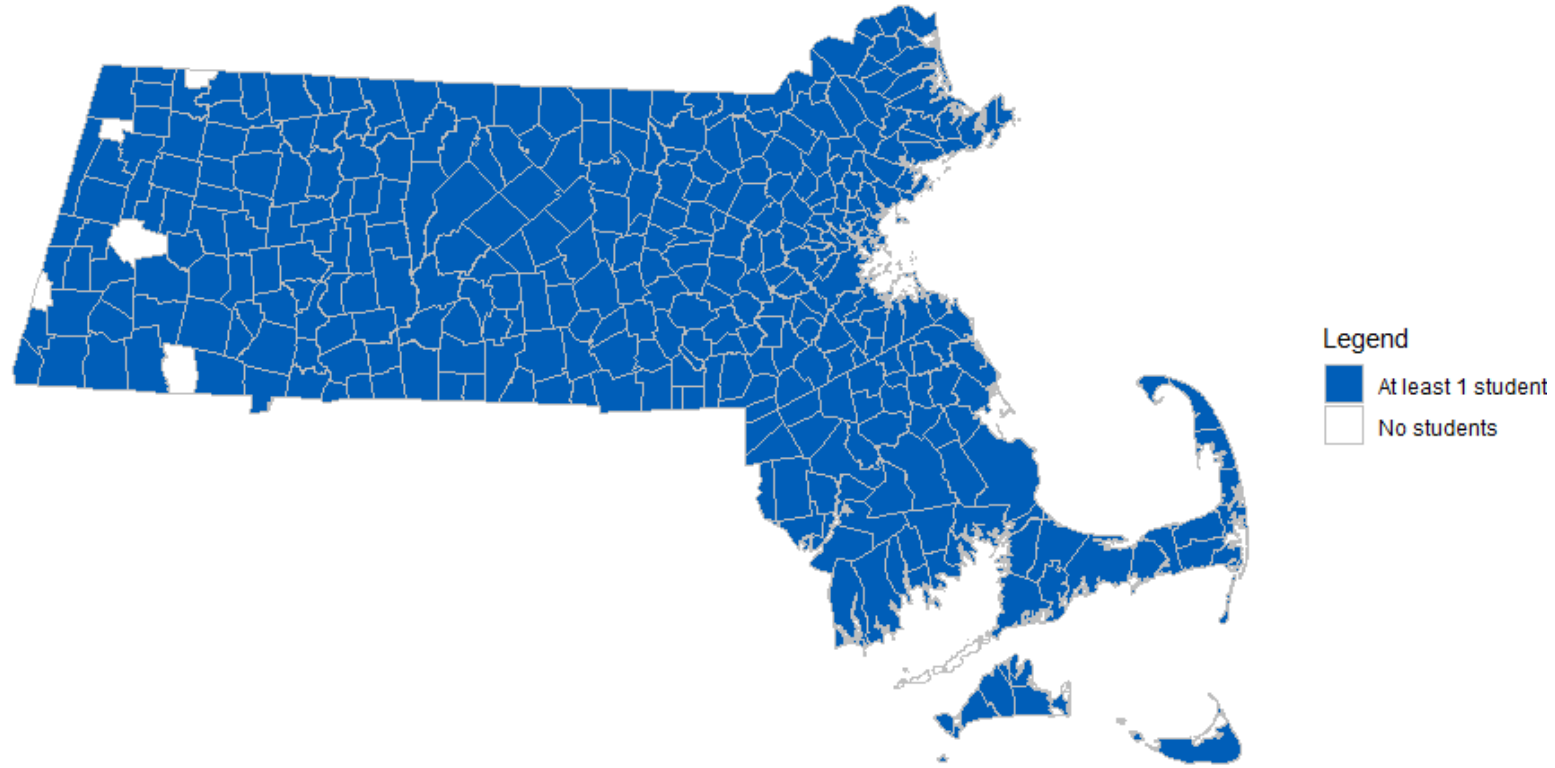
¹ Best Colleges for Veterans by U.S. News and World Report (Amherst, Lowell)

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

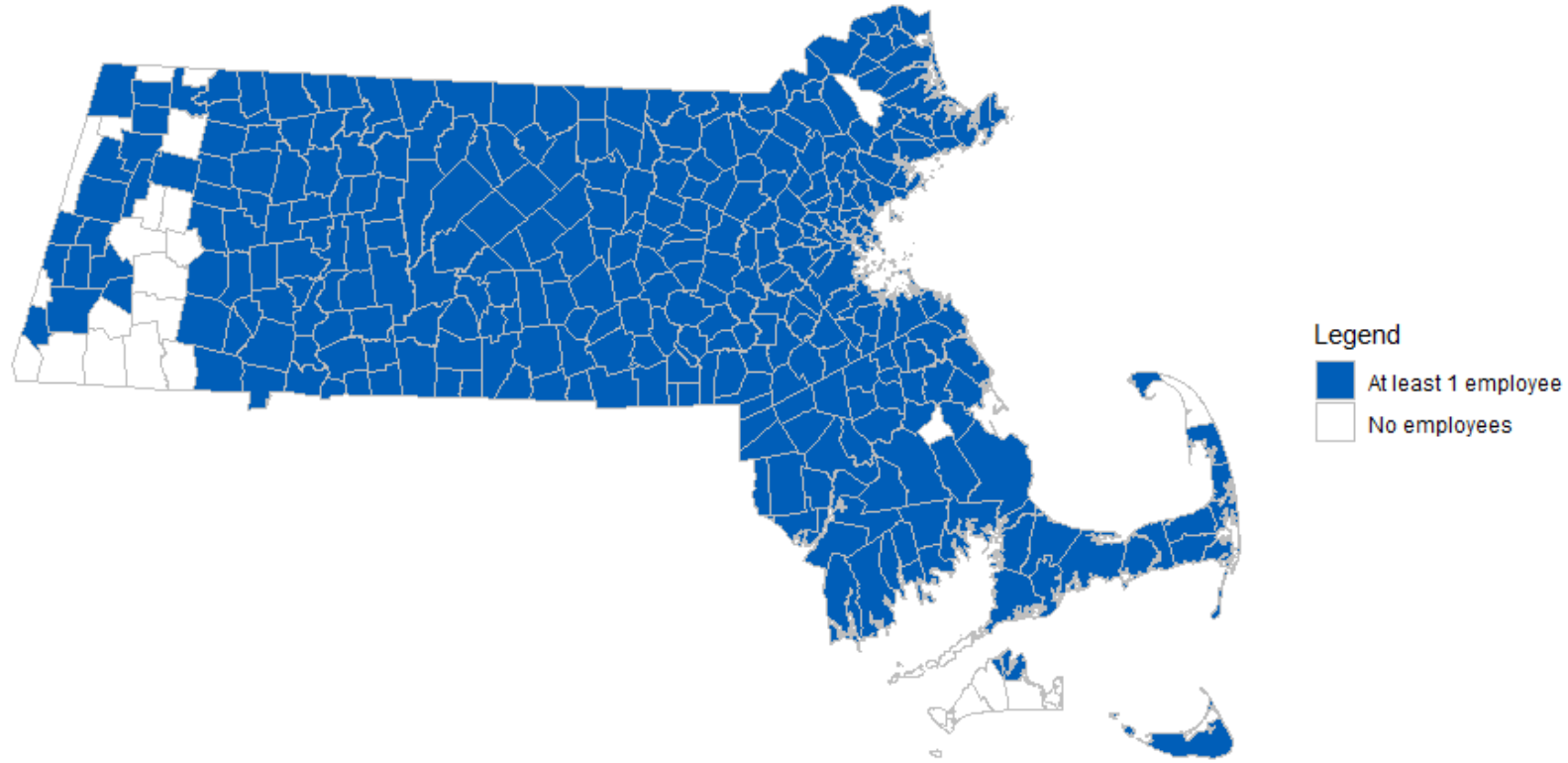
UMass Students in the Commonwealth
Representation among the 351 communities



Data: Fall 2019 enrollment, UMass IR offices

UMass employees come from over 325 communities of the Commonwealth.

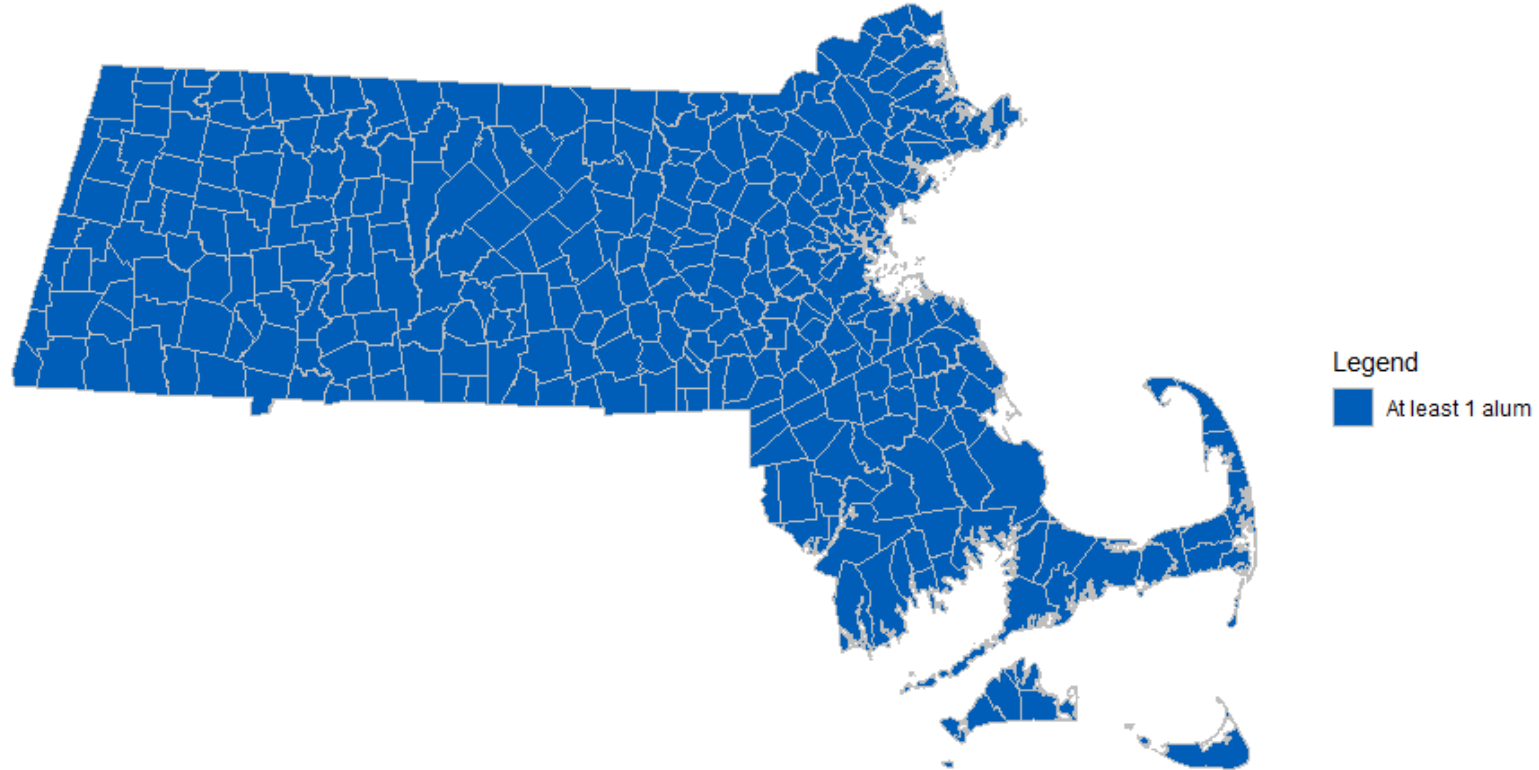
UMass Employees in the Commonwealth
Representation among the 351 communities



Data: Human Resources Dec 2019

UMass **alumni live** in all 351 communities of the Commonwealth.

UMass Alums in the Commonwealth
Representation among the 351 communities



Data: Jan 2020 UMass Office of Advancement

Life-Changing Research

UMass conducts \$651 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

\$651 million

in annual research & development

UMass conducts

17%

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.

44

Start-up Companies
Launched

2015-2019

Research & Discovery
by the numbers

\$292 million

in licensing income
generated

329

Patents awarded

999

Invention
disclosures filed

143

Licenses completed

#5. Multi-Year Review & Financial Forecast

FY15-25



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](#)



Revenue

Revenue: Modeling Assumptions

President's Office Guidance

State Appropriation	0.0%
State Collective Bargaining	2.0%
Modeled Tuition: In State UG	No more than 2.5%
Modeled Tuition: Out of State UG	Campus determined
Modeled Tuition: Grad	Campus determined
Mandatory : Tech Fee	Case by Case
Mandatory: Student Activity Fee	Case by Case
Non-Mandatory Fees	Case by Case

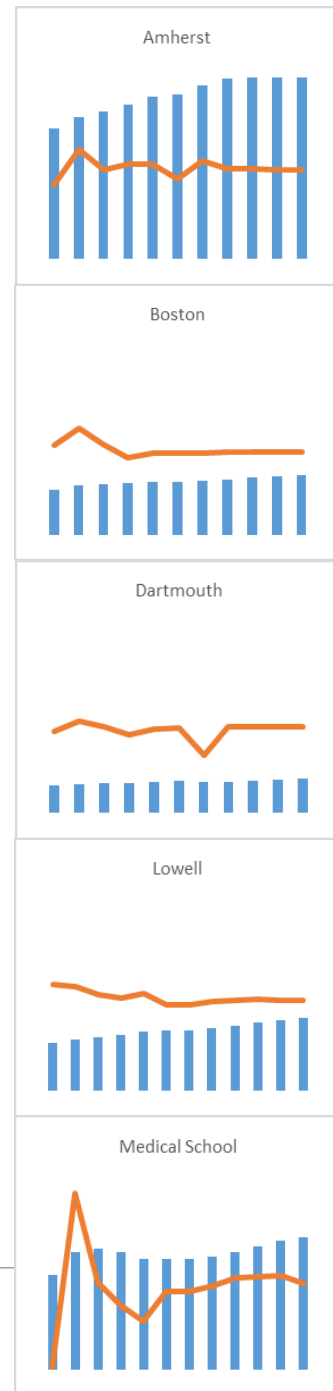
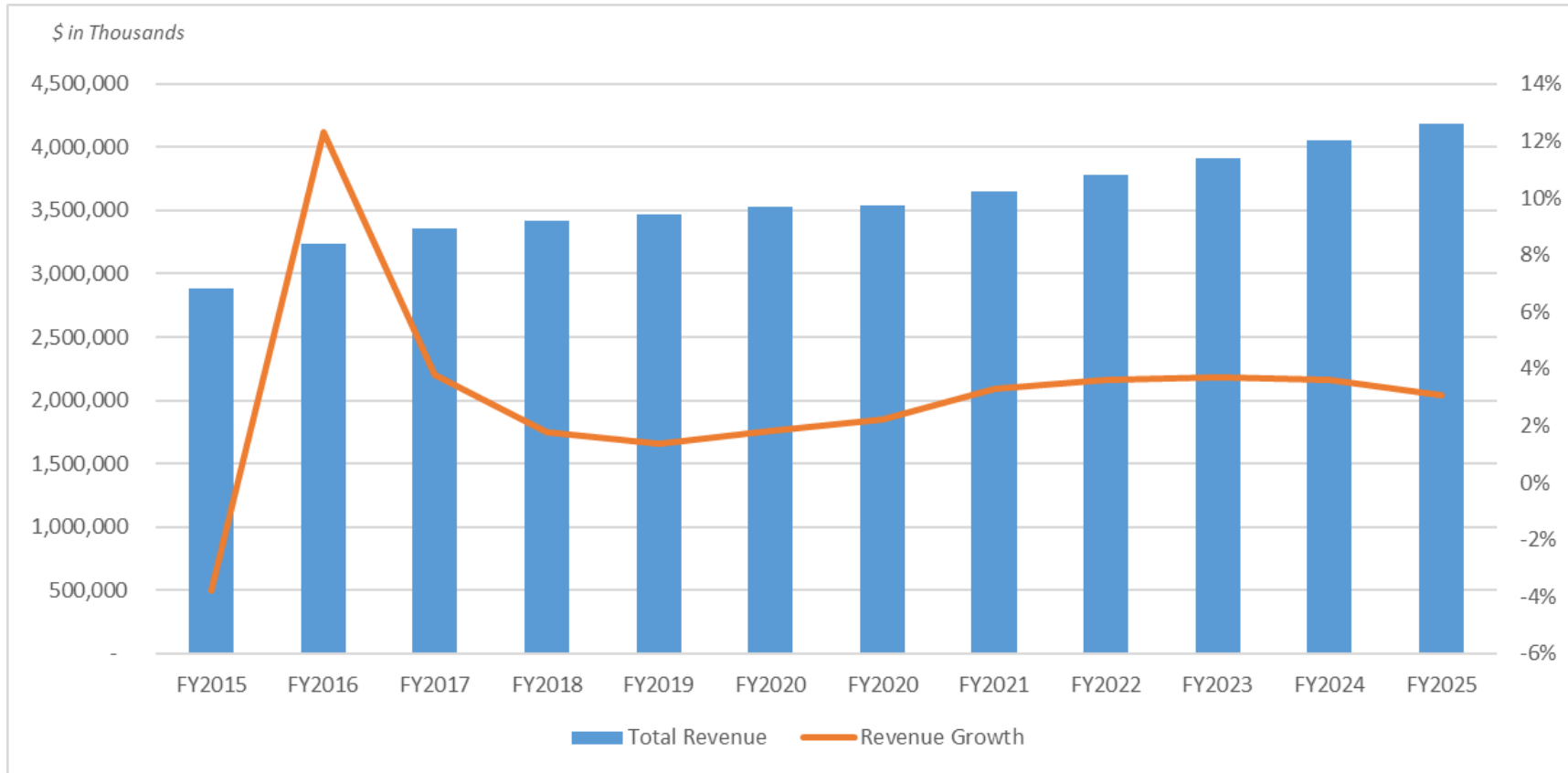
Campus Specific

Tuition: Out of State & Graduate
Enrollment

- State Appropriation: Base increase to reflect State portion of assumed collective bargaining increase \$12-13 million annually.
- Tuition increases:
 - In State Undergraduate = 2.5%
 - Out of State and Graduate = up to 3.0%
- Enrollment: Increase of 3.7% over the projection period (0.9% annual average) based on campus plans and capacity.

*Collective bargaining increases are assumed based upon past history. The Commonwealth has not yet provided parameters for FY20 bargaining .

University Revenue: Annual Changes



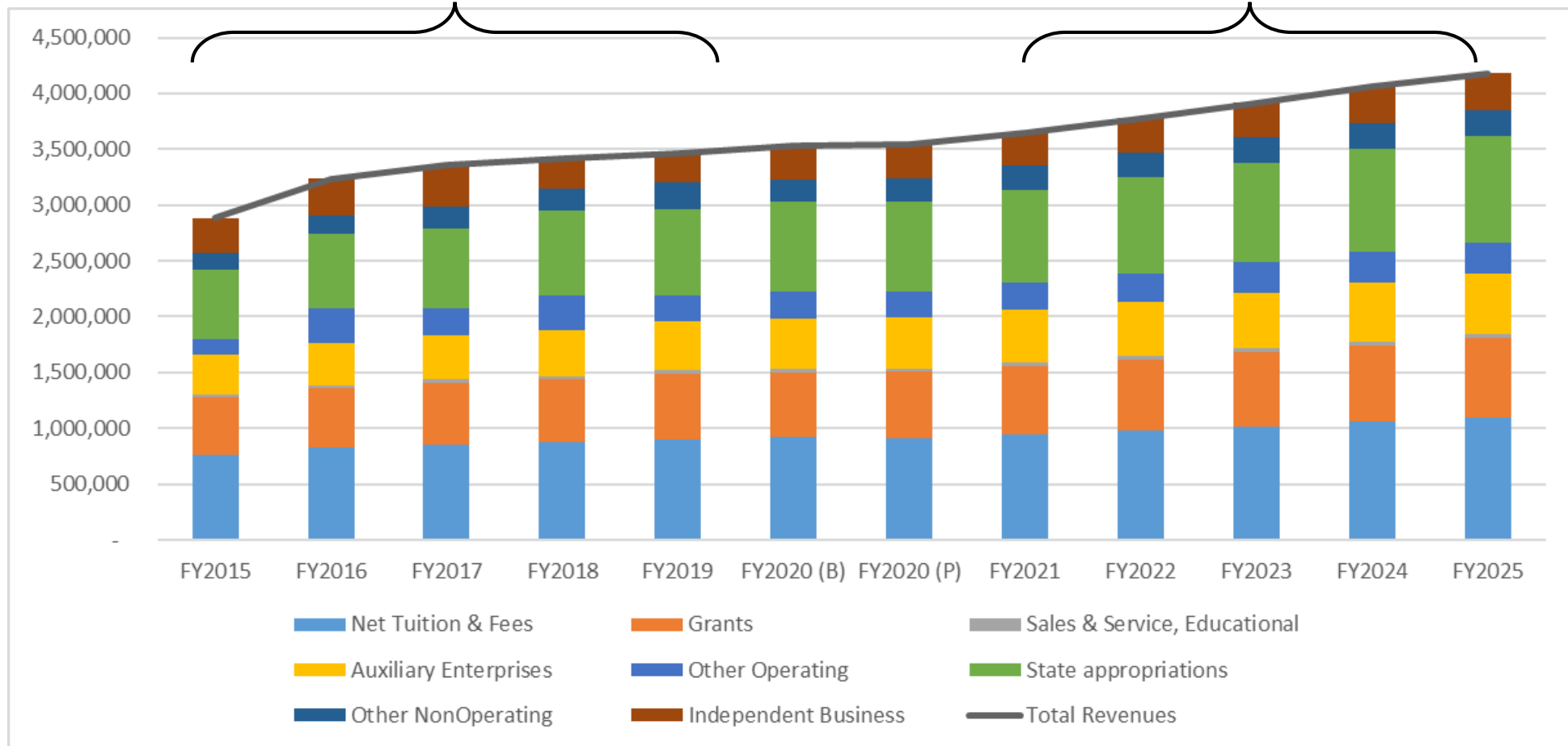
University Revenue: by Category

<i>\$ in Thousands</i>	Actual					Budget	Q1 Projection	Forecast					Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Gross Tuition & Fees	987,384	1,070,841	1,136,540	1,185,826	1,223,734	1,263,315	1,262,676	1,307,381	1,361,103	1,413,455	1,465,157	1,518,067	210,686	
<i>Gross Tuition & Fees Growth</i>		8.5%	6.1%	4.3%	3.2%	3.2%	3.2%	3.5%	4.1%	3.8%	3.7%	3.6%	16.1%	3.8%
Tuition Discounts	(222,164)	(244,025)	(288,708)	(311,000)	(328,830)	(342,748)	(347,148)	(360,961)	(376,071)	(387,908)	(400,549)	(413,262)	(52,301)	
<i>Tuition Discounts Growth</i>		9.8%	18.3%	7.7%	5.7%	4.2%	5.6%	5.3%	4.2%	3.1%	3.3%	3.2%	14.5%	3.4%
Net Tuition & Fees	765,220	826,816	847,832	874,825	894,904	920,567	915,528	946,420	977,945	1,018,318	1,057,235	1,097,284	150,864	
<i>Net Tuition & Fees Growth</i>		8.0%	2.5%	3.2%	2.3%	2.9%	2.3%	2.8%	3.3%	4.1%	3.8%	3.8%	15.9%	3.8%
Grants	510,741	528,352	560,081	560,990	593,086	579,454	589,007	613,084	636,421	662,182	688,569	715,608	102,524	
<i>Grants Growth</i>		3.4%	6.0%	0.2%	5.7%	-2.3%	-0.7%	5.8%	3.8%	4.0%	4.0%	3.9%	16.7%	3.9%
Sales & Service, Educational	25,601	27,500	28,910	30,591	34,984	29,350	30,278	30,912	31,624	32,356	33,107	33,881	2,968	
<i>Sales & Service, Educational Growth</i>		7.4%	5.1%	5.8%	14.4%	-16.1%	-13.5%	5.3%	2.3%	2.3%	2.3%	2.3%	9.6%	2.3%
Auxiliary Enterprises	362,193	383,281	400,822	416,733	441,795	456,696	459,456	471,807	489,646	505,098	520,315	535,895	64,087	
<i>Auxiliary Growth</i>		5.8%	4.6%	4.0%	6.0%	3.4%	4.0%	3.3%	3.8%	3.2%	3.0%	3.0%	13.6%	3.2%
Other Operating	136,954	307,286	233,717	311,119	222,076	236,776	233,070	238,197	254,518	271,021	287,598	285,151	46,954	
<i>Other Operating Growth</i>		124.4%	-23.9%	33.1%	-28.6%	6.6%	5.0%	0.6%	6.9%	6.5%	6.1%	-0.9%	19.7%	4.7%
State	621,200	669,748	720,817	751,894	780,222	805,515	801,974	829,659	857,827	886,723	915,316	945,042	115,383	
<i>State Growth</i>		7.8%	7.6%	4.3%	3.8%	3.2%	2.8%	3.0%	3.4%	3.4%	3.2%	3.2%	13.9%	3.3%
Other Non Operating	144,964	162,741	195,089	197,142	231,504	199,096	211,578	217,880	224,548	230,165	236,408	241,025	23,145	
<i>Other Non-Operating Growth</i>		12.3%	19.9%	1.1%	17.4%	-14.0%	-8.6%	9.4%	3.1%	2.5%	2.7%	2.0%	10.6%	2.6%
Independent Business Lines (Med)	312,077	330,259	371,618	274,555	266,509	301,131	301,131	297,454	303,877	310,498	318,321	326,854	29,400	
<i>Independent Business Lines Growth</i>		5.8%	12.5%	-26.1%	-2.9%	13.0%	13.0%	-1.2%	2.2%	2.2%	2.5%	2.7%	9.9%	2.4%
Total	2,878,948	3,235,982	3,358,886	3,417,849	3,465,080	3,528,585	3,542,022	3,645,415	3,776,406	3,916,361	4,056,869	4,180,740	535,325	
<i>Total Growth</i>		12.4%	3.8%	1.8%	1.4%	1.8%	2.2%	3.3%	3.6%	3.7%	3.6%	3.1%	14.7%	3.5%

University Revenue: Diverse Sources

Average Annual Growth FY15-19:
\$145.8 million or 4.8%

Average Annual Growth FY21-25:
\$133.8 million or 3.5%



Revenue: by Campus

\$ in Thousands	Actual					Budget	Q1 Projection	Forecast					Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Amherst	1,082,614	1,174,441	1,216,054	1,276,643	1,341,052	1,359,006	1,382,685	1,437,651	1,493,843	1,551,845	1,607,156	1,663,164	225,513	
<i>Amherst Growth</i>		8.5%	3.5%	5.0%	5.0%	1.3%	3.1%	5.8%	3.9%	3.9%	3.6%	3.5%	15.7%	3.7%
Boston	376,122	406,402	423,334	426,589	436,467	442,523	445,647	451,352	461,054	470,823	480,771	490,787	39,436	
<i>Boston Growth</i>		8.1%	4.2%	0.8%	2.3%	1.4%	2.1%	2.0%	2.1%	2.1%	2.1%	2.1%	8.7%	2.1%
Dartmouth	231,692	241,281	248,385	250,628	256,592	263,485	251,836	252,940	260,139	267,703	275,626	283,517	30,577	
<i>Dartmouth Growth</i>		4.1%	2.9%	0.9%	2.4%	2.7%	-1.9%	-4.0%	2.8%	2.9%	3.0%	2.9%	12.1%	2.9%
Lowell	390,156	418,400	439,843	459,042	484,770	498,589	497,574	516,902	536,840	558,599	579,526	601,307	84,405	
<i>Lowell Growth</i>		7.2%	5.1%	4.4%	5.6%	2.9%	2.6%	3.7%	3.9%	4.1%	3.7%	3.8%	16.3%	3.9%
President's Office	99,843	107,621	117,659	119,219	124,478	132,526	133,353	138,629	141,119	143,659	146,250	148,891	10,262	
<i>President's Office Growth</i>		7.8%	9.3%	1.3%	4.4%	6.5%	7.1%	4.6%	1.8%	1.8%	1.8%	1.8%	7.4%	1.8%
Subtotal	2,180,427	2,348,145	2,445,275	2,532,121	2,643,359	2,696,129	2,711,095	2,797,474	2,892,995	2,992,629	3,089,330	3,187,667	390,193	
<i>Subtotal Growth</i>		7.1%	4.0%	3.4%	4.2%	2.0%	0.6%	3.6%	3.3%	3.3%	3.1%	3.1%	13.9%	3.2%
Medical School	774,094	963,663	991,957	965,654	903,378	911,346	911,346	929,968	967,079	1,009,073	1,054,586	1,081,861	151,894	
<i>Medical School Growth</i>		24.5%	2.9%	-2.7%	-6.4%	0.9%	0.9%	2.0%	4.0%	4.3%	4.5%	2.6%	16.3%	3.9%
Total	2,878,948	3,235,982	3,358,886	3,417,849	3,465,080	3,528,585	3,542,022	3,645,415	3,776,406	3,916,361	4,056,869	4,180,740	535,325	
<i>Total Growth</i>		12.4%	3.8%	1.8%	1.4%	1.8%	2.2%	3.3%	3.6%	3.7%	3.6%	3.1%	14.7%	3.5%

Revenue: by Program Area

	Actual					Budget	Q1 Projection	Forecast					Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
<i>\$ in Thousands</i>														
(1) E&G (ABDL)	1,563,696	1,673,418	1,749,548	1,796,653	1,783,664	1,828,276	1,833,063	1,893,493	1,957,177	2,026,394	2,092,120	2,159,032	265,538	
<i>E&G Growth</i>		7.0%	4.5%	2.7%	-0.7%	2.5%	2.8%	3.6%	3.4%	3.5%	3.2%	3.2%	14.0%	3.3%
Research (ABDL)	219,523	232,703	243,349	248,269	264,247	267,403	273,375	282,966	292,314	301,993	312,019	322,399	39,432	
<i>Research Growth</i>		6.0%	4.6%	2.0%	6.4%	1.2%	3.5%	5.8%	3.3%	3.3%	3.3%	3.3%	13.9%	3.3%
Auxiliary (ABDL)	323,883	348,045	365,029	390,123	414,544	426,832	429,942	440,809	457,953	472,689	487,264	502,187	61,378	
<i>Auxiliary Growth</i>		7.5%	4.9%	6.9%	6.3%	3.0%	3.7%	3.3%	3.9%	3.2%	3.1%	3.1%	13.9%	3.3%
(2) Other (Med)	511,148	722,615	657,066	764,367	719,185	692,779	691,721	713,880	747,655	786,740	828,306	850,693	136,813	
<i>Other Growth</i>		41.4%	-9.1%	16.3%	-5.9%	-3.7%	-3.8%	3.0%	4.7%	5.2%	5.3%	2.7%	19.2%	4.5%
Law School	3,401	3,430	3,280	3,990	4,556	4,559	5,185	5,694	6,012	6,318	6,786	7,344	1,650	
<i>Law School Growth</i>		0.9%	-4.4%	21.6%	14.2%	0.1%	13.8%	24.9%	5.6%	5.1%	7.4%	8.2%	29.0%	6.6%
Independent Business Lines (Med)	348,487	349,215	391,643	292,199	278,857	308,736	308,736	308,570	315,295	322,228	330,373	339,236	30,666	
<i>Independent Business Lines Growth</i>		0.2%	12.1%	-25.4%	-4.6%	10.7%	10.7%	-0.1%	2.2%	2.2%	2.5%	2.7%	9.9%	2.4%
(3) Total	2,885,171	3,252,580	3,326,336	3,416,188	3,465,053	3,528,585	3,542,022	3,645,415	3,776,406	3,916,361	4,056,869	4,180,740	535,325	
<i>Total Growth</i>		12.7%	2.3%	2.7%	1.4%	1.8%	2.2%	3.3%	3.6%	3.7%	3.6%	3.1%	14.7%	3.5%

(1) E&G = Education & General; ABDL: Amhers, Boston, Dartmouth, Lowell; Total includes Online revenue

(2) Other: 85% of revenues are for the Medical School Research and Education; the remaining 15% are for ADBL revenues not reflected in other programs

(3) Revenue by program (FY15-18) excludes unrealized gains and losses consistent with the total revenue used to calculate the Operating Margin

Online Revenue

Online Revenue <i>\$ in Thousands</i>	Actual					Budget	Q1 Projection	Forecast				
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Amherst	36,120	38,563	42,042	45,352	46,144	47,265	47,067	48,008	50,067	55,451	61,390	67,917
% Growth	3.1%	6.8%	9.0%	7.9%	1.7%	2.4%	2.0%	1.6%	4.3%	10.8%	10.7%	10.6%
Boston	17,020	18,041	19,416	19,717	19,461	19,152	20,828	21,036	21,247	21,459	21,674	21,890
% Growth	2.2%	6.0%	7.6%	1.6%	-1.3%	-1.6%	7.0%	9.8%	1.0%	1.0%	1.0%	1.0%
Dartmouth ⁽¹⁾	5,760	6,734	8,026	9,635	11,213	12,335	12,616	13,660	14,070	14,493	14,927	15,374
% Growth	26.4%	16.9%	19.2%	20.0%	16.4%	10.0%	12.5%	10.7%	3.0%	3.0%	3.0%	3.0%
Lowell ⁽²⁾	30,590	32,587	35,291	38,380	39,237	43,000	43,000	45,150	47,407	49,778	52,266	54,880
% Growth	6.4%	6.5%	8.3%	8.8%	2.2%	9.6%	9.6%	5.0%	5.0%	5.0%	5.0%	5.0%
University	89,579	96,028	104,852	113,169	116,126	121,752	123,511	127,855	132,791	141,181	150,257	160,061
% Growth	5.3%	7.2%	9.2%	7.9%	2.6%	4.8%	6.4%	5.0%	3.9%	6.3%	6.4%	6.5%

Source: FY15 -19 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.

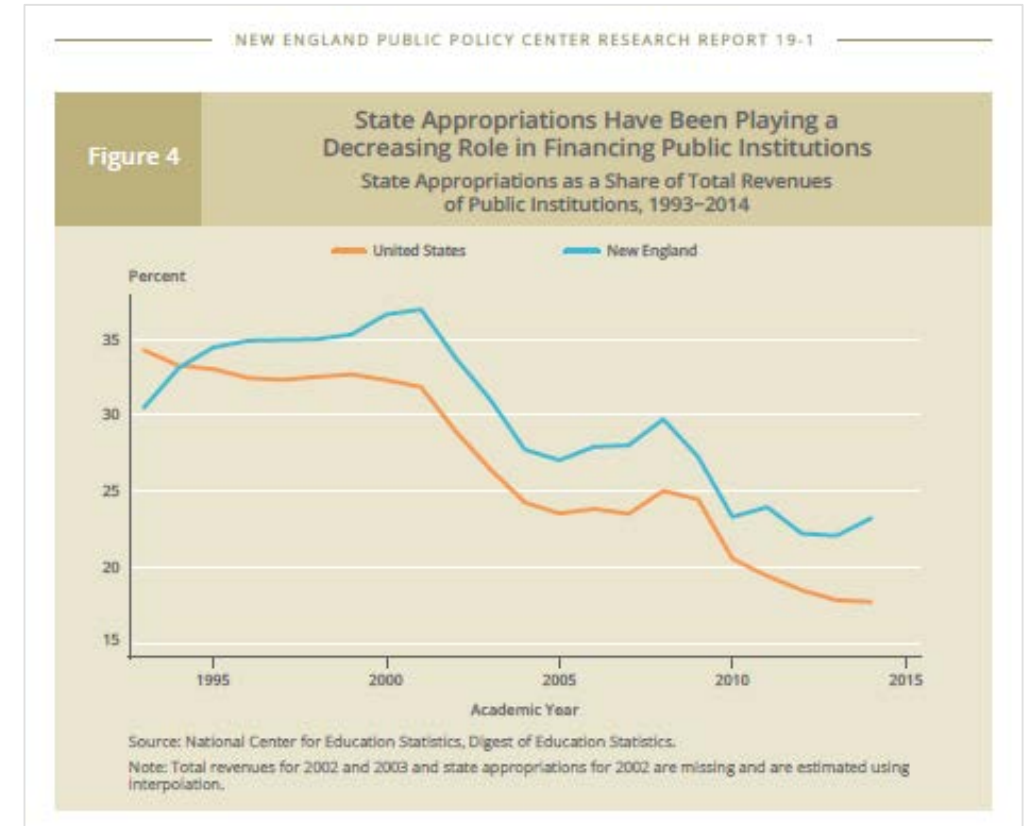
(2) UMass Online reports summer session revenue differently than Lowell financial reporting.

- 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 currently being studied.

National Trends in State Appropriations

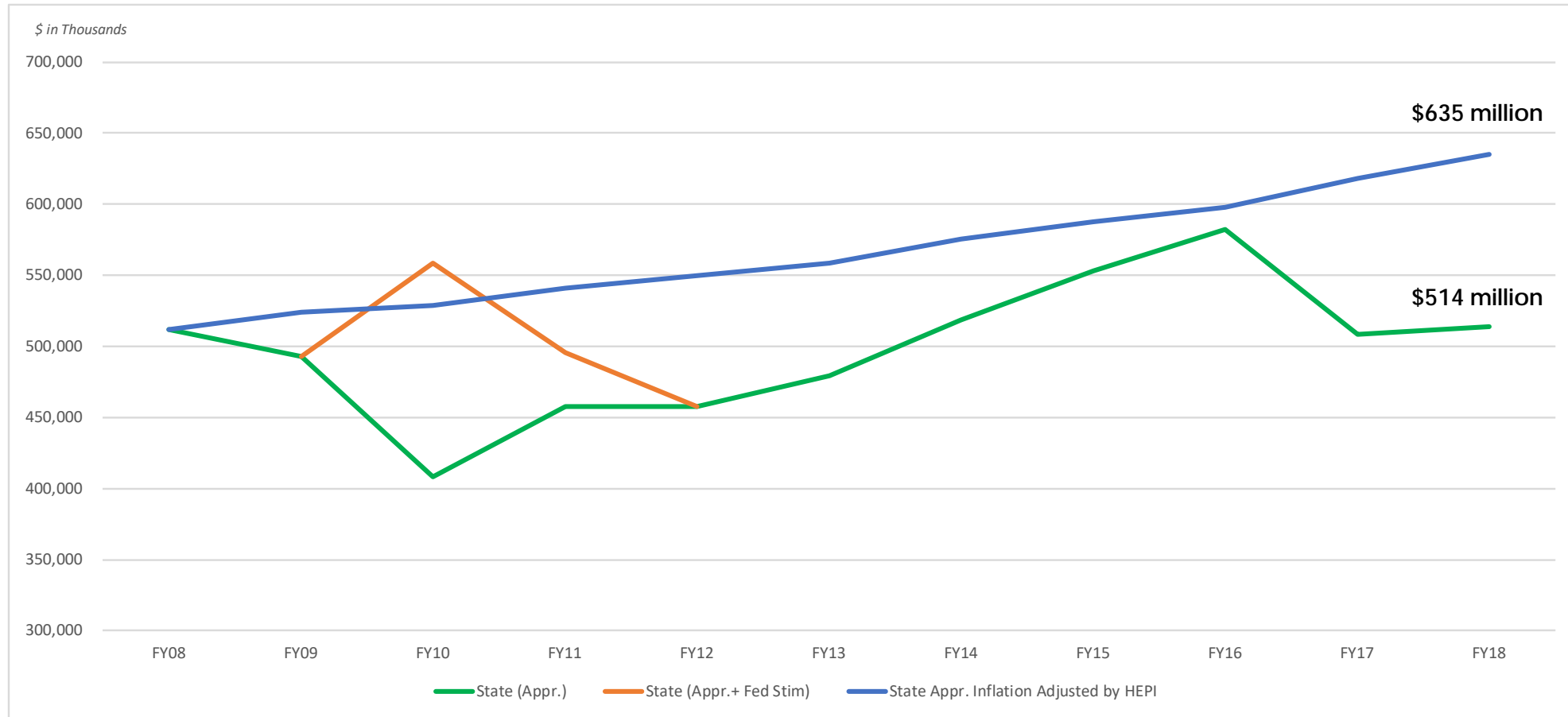
Support for higher education has declined in New England and nationally since 1993.

- 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

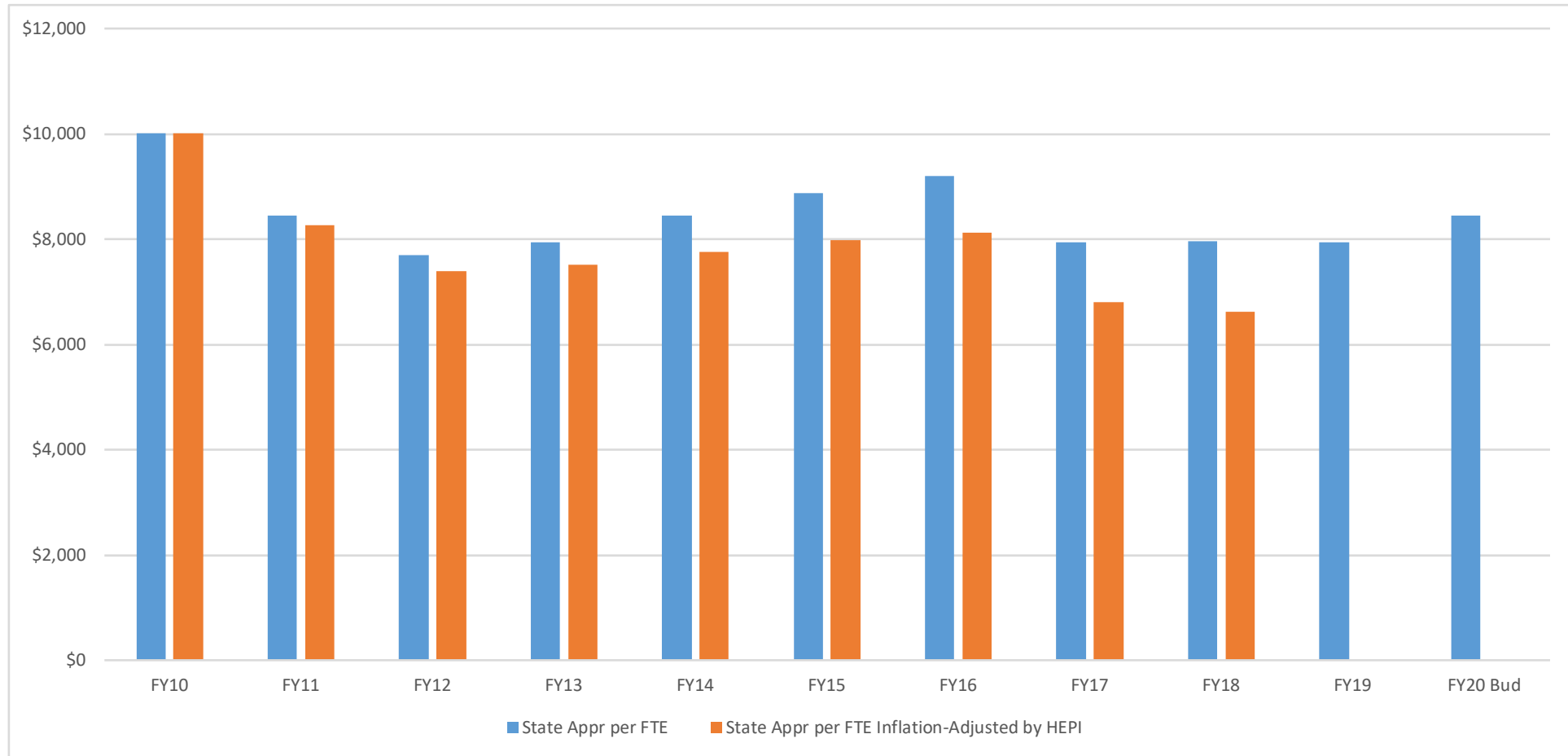
State support for UMass has not kept pace with inflation.



Does not include state supported fringe.

State Appropriation per Total Student FTE

State support per student FTE has declined 15.6% from \$10,021 in FY10 to \$8,455 in FY20.



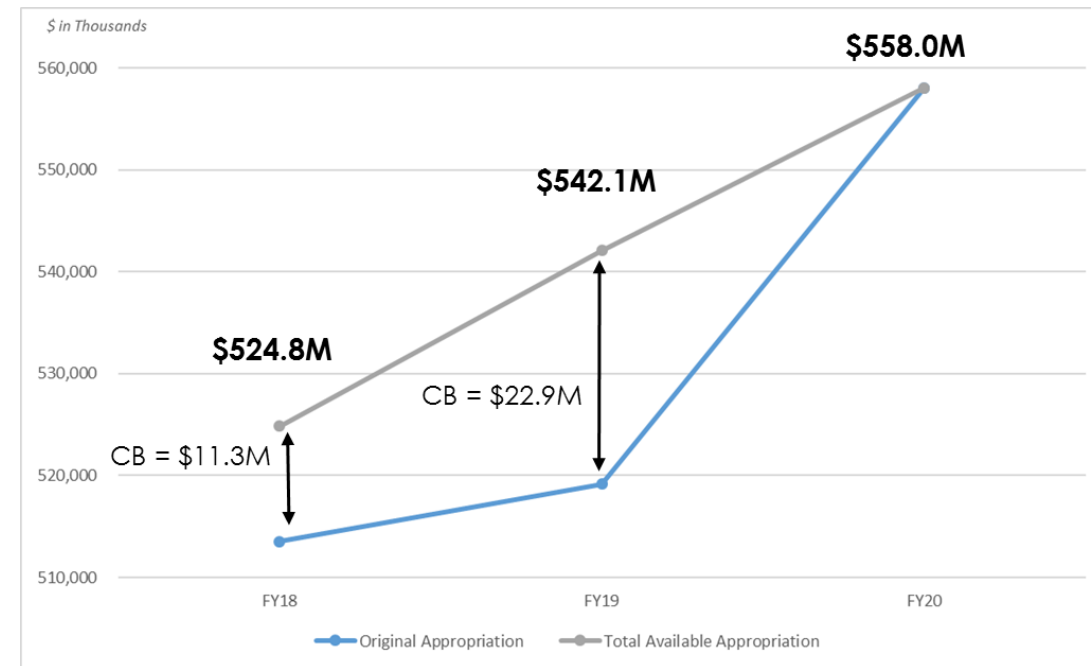
Note: Inflation adjustments not available for FY19 and FY20.

UMass State Appropriation Growth: FY18-FY20

Nearly all increases in UMass' state appropriation support only the state's share of collective bargaining costs.

<i>\$ in Thousands</i>	FY19	FY20	Increase
Original Appropriation	519,167	523,306	4,139
Collective Bargaining (supplemental*)	22,928	34,739	11,811
Total Available Appropriation	542,095	558,045	15,950
<i>% Increase</i>			<i>3%</i>

*The FY19 GAA (original appropriation) did not include collective bargaining; during FY19, supplemental funding was provided to the University's line item increasing the total available appropriation to include the collective bargaining commitment.



Expenses

Expenses: Modeling Assumptions

President's Office Guidance

Collective Bargaining	2.0%
Fringe Rate	37.12%-43.69%
Payroll Tax	2.60%-3.27%
Interest on new borrowing	5.0%

Campus Specific

Staffing

Ratio Assumptions

by FY23

Operating Margin	Maintain at or above 2%
------------------	-------------------------

- **Salaries & Fringe:**

- Total collective bargaining increases are projected at 2.0% or \$30-33 million annually.
- State funding for collective bargaining of \$12-13 million annually.
- Annual fringe rate increase of 4.4% based on historical average.

- **Staffing:** Consistent with enrollment, research opportunities and other programmatic needs.

- **Capital & Debt:** Reflects borrowing required to fully implement the current capital plan; Amherst built in planning amount for projects not yet approved

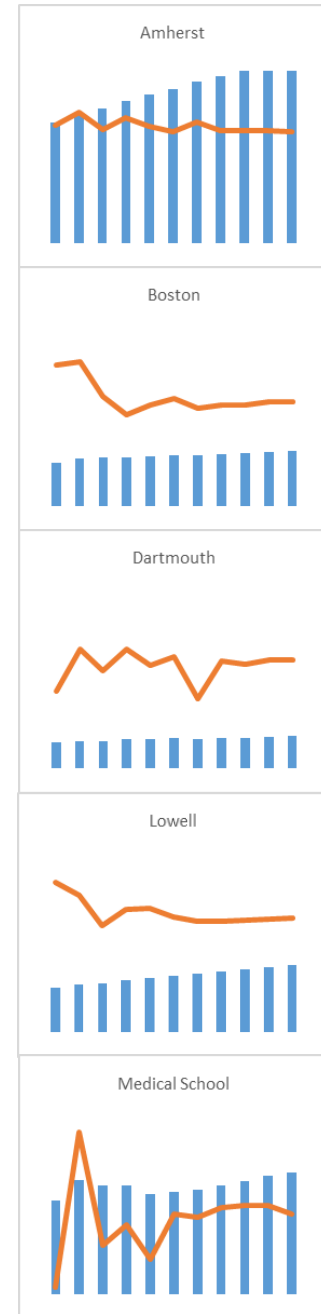
- **Financial Aid:** Increases consistent with tuition increase and to meet student need.

*Collective bargaining increases are assumed based upon past history. The Commonwealth has not yet provided parameters for FY20 bargaining .

University Expenses: Annual Changes



Excludes impact of GASB 68 & 75



University Expenses: by Category

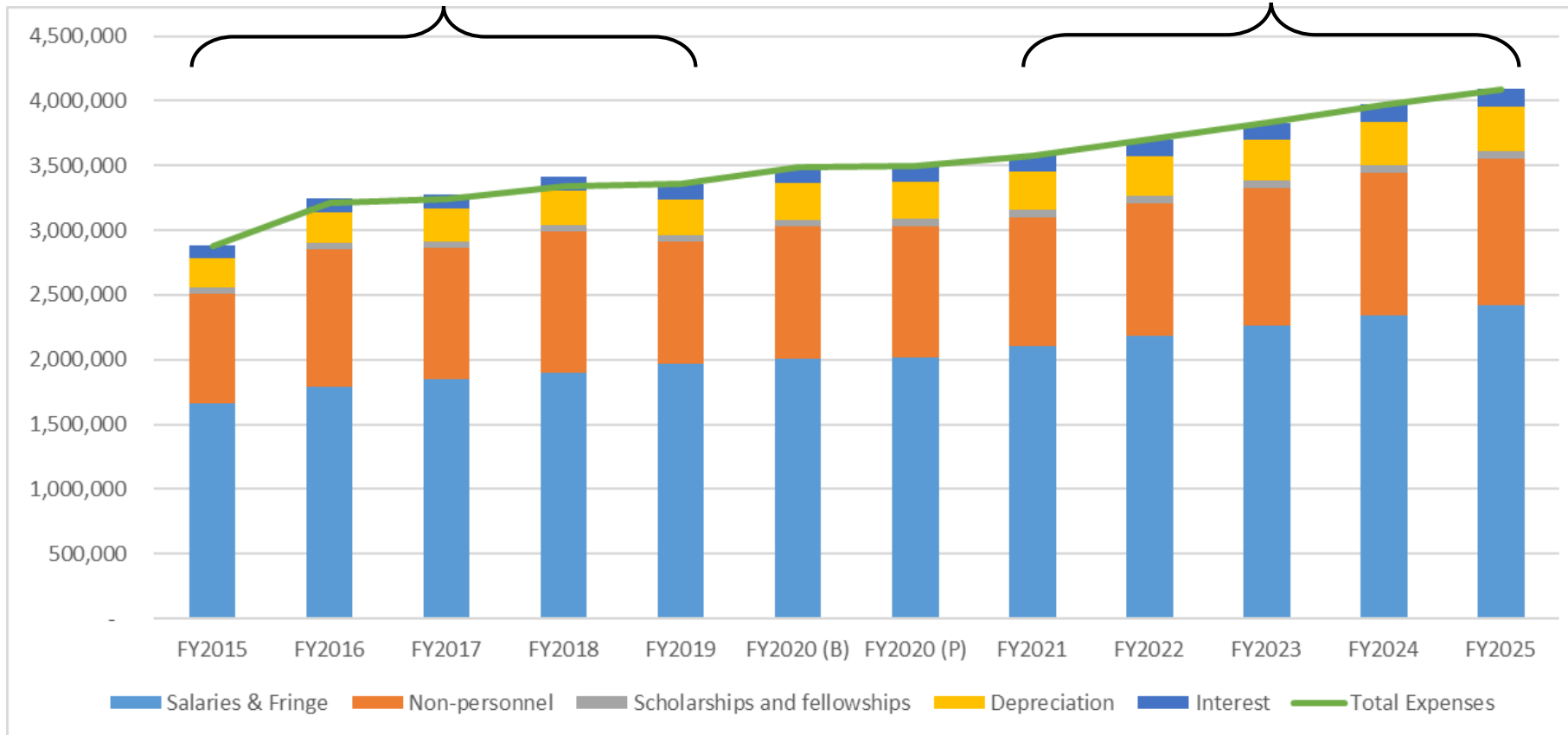
\$ in Thousands	Actual					Budget	Q1 Projection	Forecast					Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Salaries & Fringe	1,659,054	1,788,018	1,847,346	1,901,896	1,970,869	2,011,769	2,018,601	2,109,281	2,184,193	2,263,414	2,345,706	2,423,434	314,153	
<i>Salaries & Fringe Growth</i>		7.8%	3.3%	3.0%	3.6%	2.1%	2.4%	4.8%	3.6%	3.6%	3.6%	3.3%	14.9%	3.5%
Non-personnel	852,900	1,067,226	1,018,600	1,088,019	943,685	1,013,968	1,015,870	990,945	1,024,201	1,061,045	1,099,025	1,126,143	135,198	
<i>Non-personnel Growth</i>		25.1%	-4.6%	6.8%	-13.3%	7.4%	7.6%	-2.3%	3.4%	3.6%	3.6%	2.5%	13.6%	3.3%
Scholarships and fellowships	49,300	44,645	47,706	50,402	49,507	52,996	53,990	55,088	56,348	57,579	58,896	60,207	5,119	
<i>Scholarships & fellowships Growth</i>		-9.4%	6.9%	5.7%	-1.8%	7.0%	9.1%	3.9%	2.3%	2.2%	2.3%	2.2%	9.3%	2.2%
Depreciation	221,043	240,864	249,669	261,417	276,638	286,093	287,345	295,573	306,317	318,498	332,277	339,966	44,393	
<i>Depreciation Growth</i>		9.0%	3.7%	4.7%	5.8%	3.4%	3.9%	3.3%	3.6%	4.0%	4.3%	2.3%	15.0%	3.6%
Interest	100,332	105,276	110,069	115,851	116,217	119,112	118,876	129,992	131,071	131,014	134,017	142,197	12,204	
<i>Interest Growth</i>		4.9%	4.6%	5.3%	0.3%	2.5%	2.3%	9.1%	0.8%	0.0%	2.3%	6.1%	9.4%	2.3%
Total	2,882,686	3,211,563	3,237,351	3,336,260	3,356,916	3,483,937	3,494,682	3,580,879	3,702,131	3,831,550	3,969,922	4,091,946	511,067	
<i>Total Growth</i>		11.4%	0.8%	3.1%	0.6%	3.8%	4.1%	2.8%	3.4%	3.5%	3.6%	3.1%	14.3%	3.4%

Excludes impact of GASB 68 & 75

University Expenses: Expense Drivers

Average Annual Growth FY15-19:
\$118.6 million or 4.0%

Average Annual Growth FY21-25:
\$127.8 million or 3.4%



Excludes impact of GASB 68 & 75

Expenses: by Campus

\$ in Thousands	Actual					Budget	Q1 Projection	Forecast					Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Amherst	1,056,072	1,128,807	1,173,095	1,241,490	1,296,841	1,340,857	1,357,814	1,409,183	1,460,887	1,515,480	1,570,622	1,625,886	216,703	
<i>Amherst Growth</i>		6.9%	3.9%	5.8%	4.5%	3.4%	4.7%	5.1%	3.7%	3.7%	3.6%	3.5%	15.4%	3.6%
Boston	377,435	411,912	424,463	424,202	430,967	442,523	445,647	446,838	454,134	461,406	471,156	480,972	34,134	
<i>Boston Growth</i>		9.1%	3.0%	-0.1%	1.6%	2.7%	3.4%	1.0%	1.6%	1.6%	2.1%	2.1%	7.6%	1.9%
Dartmouth	225,308	236,213	238,763	250,270	255,118	263,887	256,226	253,729	260,745	266,193	273,902	281,792	28,063	
<i>Dartmouth Growth</i>		4.8%	1.1%	4.8%	1.9%	3.4%	0.4%	-3.8%	2.8%	2.1%	2.9%	2.9%	11.1%	2.7%
Lowell	387,313	417,850	428,306	451,552	476,652	495,813	494,798	511,975	528,755	547,539	567,688	589,358	77,383	
<i>Lowell Growth</i>		7.9%	2.5%	5.4%	5.6%	4.0%	3.8%	3.3%	3.3%	3.6%	3.7%	3.8%	15.1%	3.6%
President's Office	97,339	104,744	108,938	106,776	111,963	129,844	130,713	134,498	136,661	139,150	141,688	144,276	9,778	
<i>President's Office Growth</i>		7.6%	4.0%	-2.0%	4.9%	16.0%	16.7%	3.6%	1.6%	1.8%	1.8%	1.8%	7.3%	1.8%
Subtotal	2,143,467	2,299,526	2,373,565	2,474,290	2,571,540	2,672,924	2,685,197	2,756,222	2,841,182	2,929,768	3,025,056	3,122,283	366,061	
<i>Subtotal Growth</i>		6.8%	3.1%	4.1%	3.8%	3.8%	0.5%	3.0%	3.0%	3.0%	3.1%	3.1%	13.3%	3.1%
Medical School	811,896	987,866	942,132	943,144	867,033	889,903	889,903	906,684	944,616	987,123	1,031,914	1,058,451	151,767	
<i>Medical School Growth</i>		21.7%	-4.6%	0.1%	-8.1%	2.6%	2.6%	1.9%	4.2%	4.5%	4.5%	2.6%	16.7%	3.9%
Total	2,882,686	3,211,563	3,237,351	3,336,260	3,356,916	3,483,937	3,494,682	3,580,879	3,702,131	3,831,550	3,969,922	4,091,946	511,067	
<i>Total Growth</i>		11.4%	0.8%	3.1%	0.6%	3.8%	4.1%	2.8%	3.4%	3.5%	3.6%	3.1%	14.3%	3.4%

Expenses: by Program Area

\$ in Thousands	Actual					Budget	Q1 Projection	Forecast					Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
E&G (ABDL)	1,546,676	1,613,294	1,708,158	1,760,614	1,741,494	1,833,207	1,835,051	1,887,831	1,949,802	2,014,974	2,087,625	2,156,529	268,698	
<i>E&G Growth</i>		4.3%	5.9%	3.1%	-1.1%	5.3%	5.4%	3.0%	3.3%	3.3%	3.6%	3.3%	14.2%	3.4%
Research (ABDL)	211,109	230,981	235,562	245,931	262,553	266,642	269,004	274,064	280,924	287,882	295,684	304,879	30,815	
<i>Research Growth</i>		9.4%	2.0%	4.4%	6.8%	1.6%	2.5%	2.8%	2.5%	2.5%	2.7%	3.1%	11.2%	2.7%
Auxiliary (ABDL)	274,770	330,577	334,935	362,365	380,865	385,751	392,240	400,460	411,923	423,645	434,044	448,012	47,553	
<i>Auxiliary Growth</i>		20.3%	1.3%	8.2%	5.1%	1.3%	3.0%	3.8%	2.9%	2.8%	2.5%	3.2%	11.9%	2.8%
Other (Med)	568,199	757,329	677,349	764,882	696,475	697,020	695,058	717,521	750,616	788,166	827,155	848,210	130,690	
<i>Other Growth</i>		33.3%	-10.6%	12.9%	-8.9%	0.1%	-0.2%	2.9%	4.6%	5.0%	4.9%	2.5%	18.2%	4.3%
Law School	8,092	7,820	7,728	7,788	7,780	8,359	10,370	11,388	12,024	12,636	13,572	14,688	3,300	
<i>Law School Growth</i>		-3.4%	-1.2%	0.8%	-0.1%	7.4%	33.3%	36.2%	5.6%	5.1%	7.4%	8.2%	29.0%	6.6%
Independent Business Lines (Med)	346,517	347,392	361,099	275,890	267,607	292,958	292,958	289,615	296,840	304,247	311,843	319,628	30,013	
<i>Independent Business Lines Growth</i>		0.3%	3.9%	-23.6%	-3.0%	9.5%	9.5%	-1.1%	2.5%	2.5%	2.5%	2.5%	10.4%	2.5%
Total	2,882,686	3,211,563	3,237,351	3,336,260	3,356,916	3,483,937	3,494,682	3,580,879	3,702,131	3,831,550	3,969,922	4,091,946	511,067	
<i>Total Growth</i>		11.4%	0.8%	3.1%	0.6%	3.8%	4.1%	2.8%	3.4%	3.5%	3.6%	3.1%	14.3%	3.4%

Non-Instructional Administrative Costs Defined



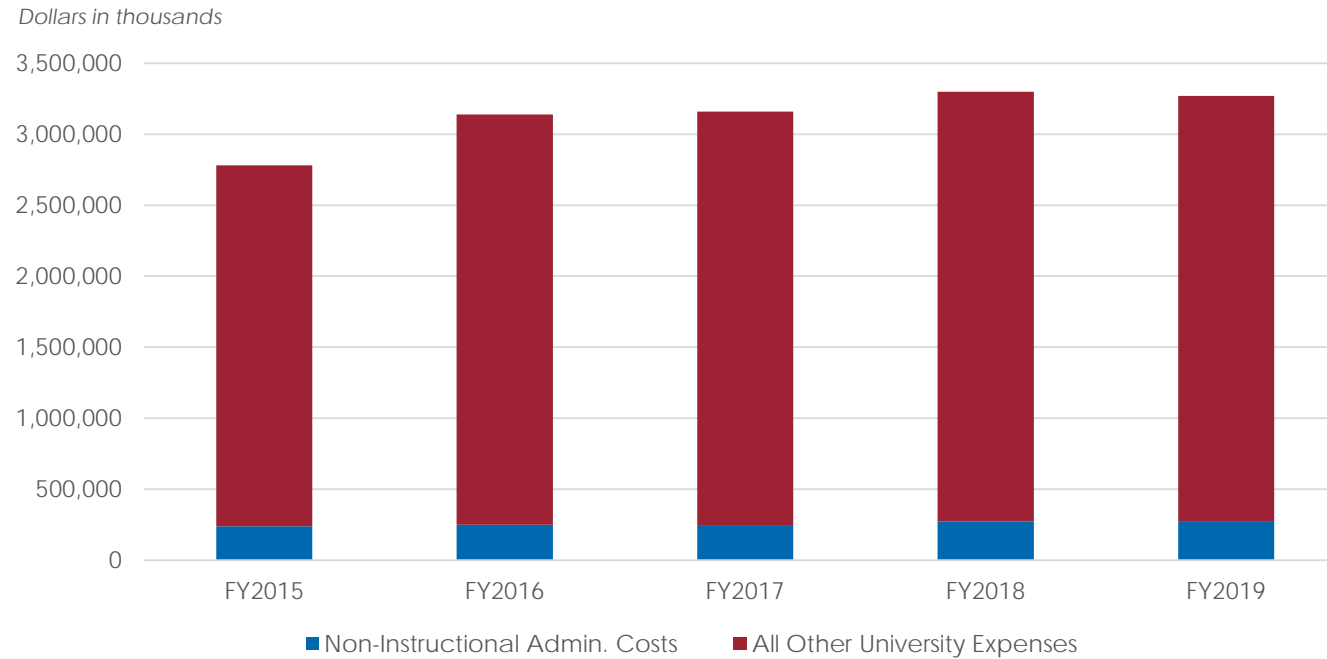
INSTITUTIONAL SUPPORT

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: 2015-2019

Non-instructional administrative costs are 8.2% of overall university expenses in FY2019.



<i>Dollars in thousands</i>	FY2015	FY2016	FY2017	FY2018	FY2019
University Costs	237,212	248,379	247,740	271,535	269,126
Percent of Total Costs	8.5%	7.9%	7.8%	8.2%	8.2%

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 (37.91%) has increased by 30.3% over the last 9 years.
- The entire state appropriation (\$558M) 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 36% the University's total payroll costs (40% with its share of fringe) leaving UMass to cover the rest from its own resources – primarily tuition and fees.

Salaries & Fringe by Fiscal Year

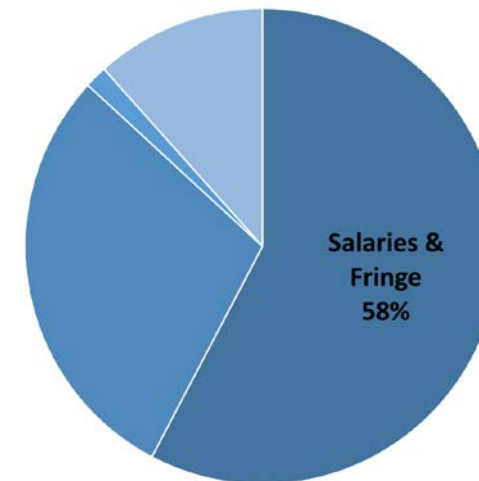
The entire state appropriation, \$558 million, is used to fund payroll which only covers 36% of the University's total payroll costs (40% when you factor fringe).

<i>\$ in Thousands</i>	Actual			Budget		
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Salaries	1,350,452	1,435,992	1,455,195	1,483,336	1,540,008	1,552,806
Fringe Rate	308,602	352,026	392,151	418,560	430,861	458,963
Total	1,659,054	1,788,018	1,847,346	1,901,896	1,970,869	2,011,769

FY20 Budget - Total University Payroll

<i>(\$ in Thousands)</i>	Total	University	State
Union Payroll	936,058	378,013	558,045
Non Union Payroll	616,758	616,758	
Fringe	458,953	210,466	248,488
Total	2,011,769	1,205,236	806,533
<i>% of Total</i>		60%	40%

Total University Expenses
(\$3.5 billion in FY20)



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 – FY23.

- Administration (through the Office of Employee Relations) sets “parameters” which determines the increase to be paid over the contract period. This has not occurred for the new contract period.
- Salaries are recurring, the cumulative impact of the contract must be funded in future budgets per M.G.L. Chapter 150E.
- The five-year forecast assumes a 2% increase for **State Funded Payroll** = \$12 – 12.9 million annually.

<i>\$ in Thousands</i>	Actual			Forecast				
	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
<i>Assumption</i>	2%	2%	2%	2%	2%	2%	2%	2%
State Funded								
Annual	11,297	11,631	11,811	12,018	12,227	12,439	12,654	12,872
Cumulative		22,928	34,739		24,245	36,684	49,339	62,211
University Funded								
Annual	19,212	19,488	20,175	18,445	18,846	19,254	20,017	19,758
Cumulative		38,701	58,875		37,290	56,545	76,562	96,320
Total								
Annual	30,509	31,120	31,986	30,463	31,072	31,694	32,672	32,630
Cumulative		61,629	93,614		61,535	93,229	125,901	158,531

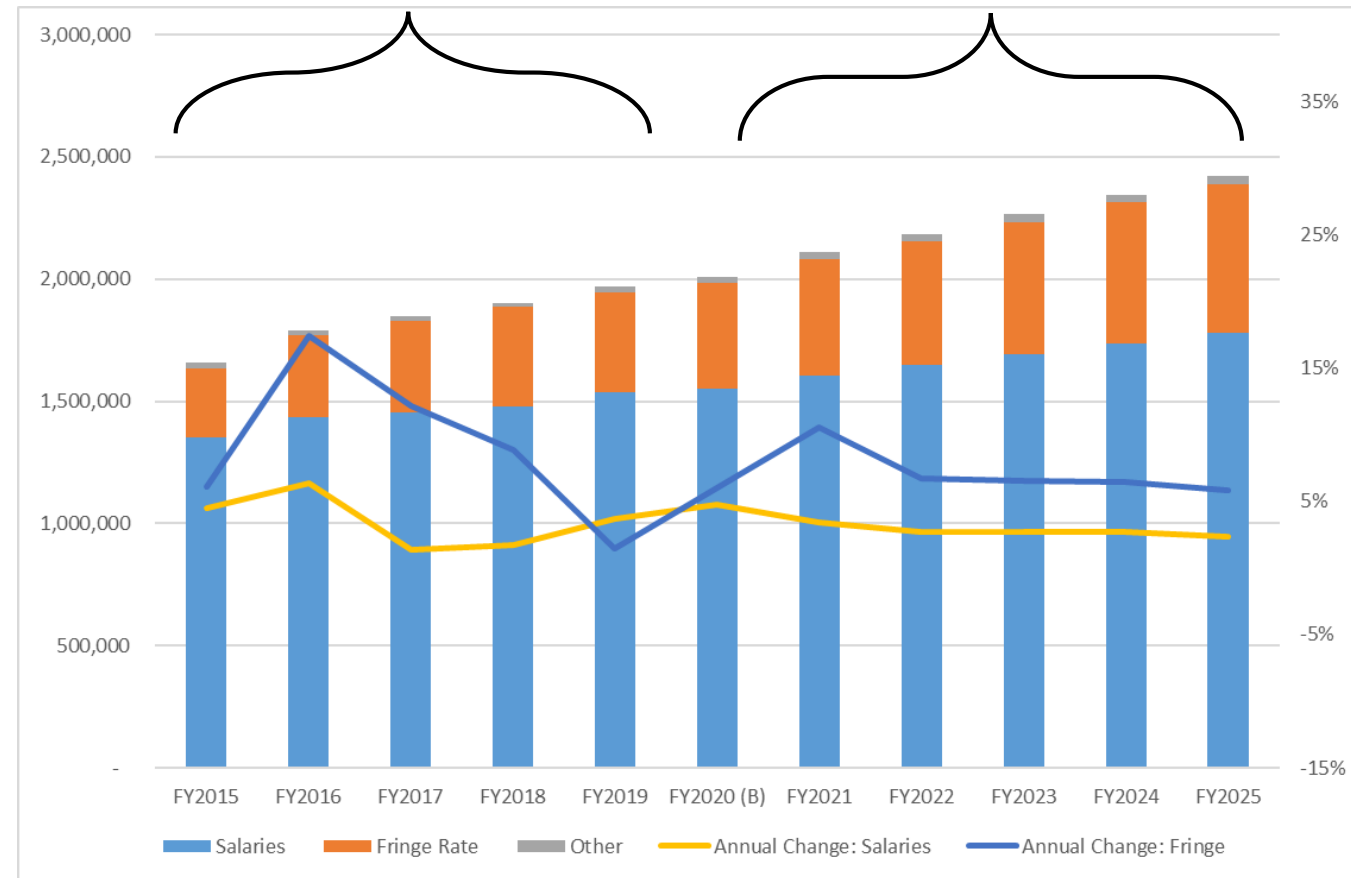
Salaries & Fringe by Fiscal Year

The average growth in salaries over the forecast period are down compared to the previous five years.

The growth in the fringe rate is nearly double the projected growth in salaries.

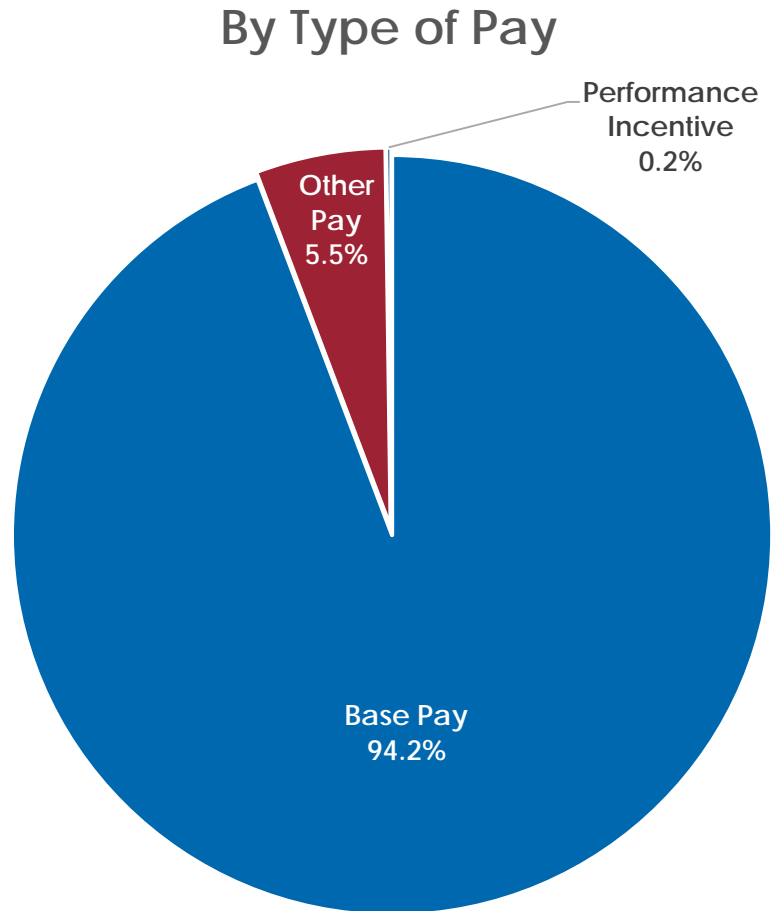
Average Annual Growth FY15-19:
Salaries = \$46.3 million or 3%
Fringe = \$32.1 million or 10%

Average Annual Growth FY21-25:
Salaries = \$43.4 million or 2.6%
Fringe = \$33.3 million or 6.4%



Calendar Year 2018 Payroll by Type of Pay

Annually, less than one quarter of one percent of total compensation (\$1.4 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 (58%); Overtime (20%).

Total Compensation Including Performance Incentive Pay

Performance payments are thoroughly vetted using industry and corporate best practices and total less than 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 2018, 64% 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

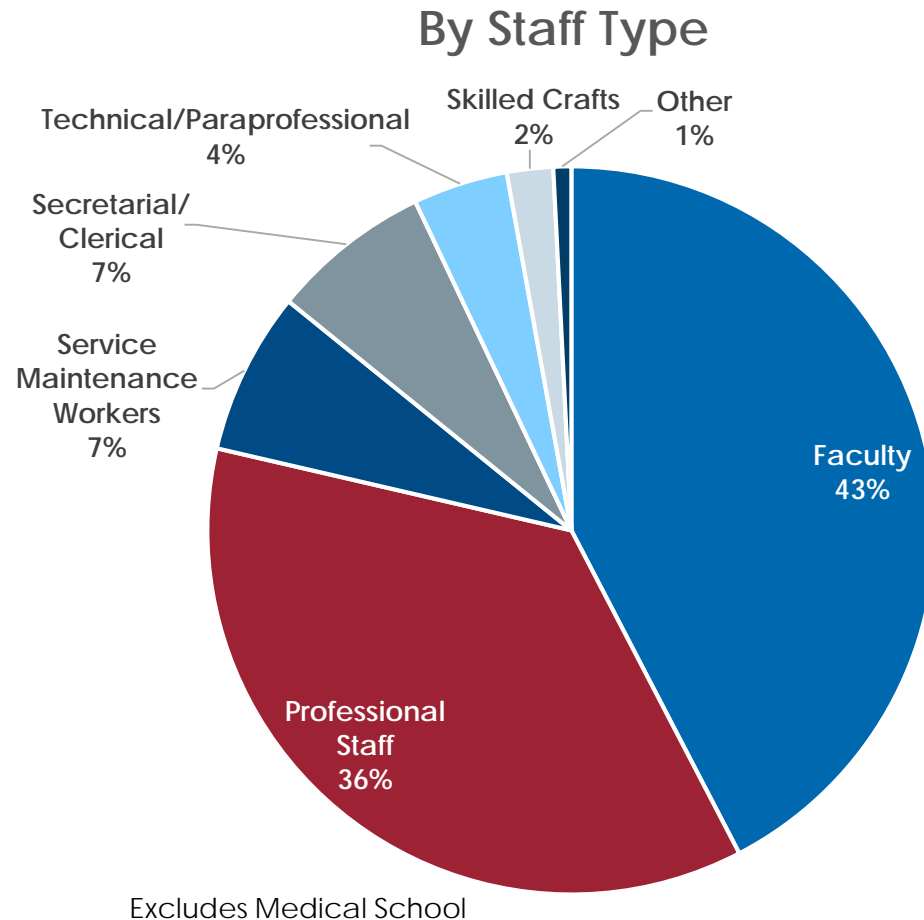
Base pay accounts for 94% of UMass payroll. Payroll by type of pay has remained consistent over time.

<i>\$ in Thousands</i>	2014	2015	2016	2017	2018
Base Pay	1,165,721	1,236,193	1,278,844	1,300,036	1,329,889
<i>% of Total Pay</i>	94.2%	94.3%	94.3%	94.3%	94.2%
Other Pay	68,384	71,625	73,626	75,090	78,140
<i>% of Total Pay</i>	5.5%	5.5%	5.4%	5.4%	5.5%
Performance Incentive	3,248	2,677	3,239	3,890	3,091
<i>% of Total Pay</i>	0.3%	0.2%	0.2%	0.3%	0.2%
Total Pay	1,237,353	1,310,495	1,355,709	1,379,017	1,411,119
<i>% of Total Pay</i>	100.0%	100.0%	100.0%	100.0%	100.0%

Data based on calendar year.

Calendar Year 2018 Payroll by Staff Type

In 2018, 43% of salaries went to faculty and 36% went to professional staff.



- \$386 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 42.4% in 2018 – an increase from 40.7% in 2014. Professional staff salaries are 36.3% in 2018 – a decrease from 38.4% in 2014.

Undergraduate Campuses & President's Office					
<i>\$ in Thousands</i>	2014	2015	2016	2017	2018
Faculty	361,114	383,240	398,841	410,561	434,341
<i>% of Total</i>	40.7%	40.4%	40.7%	41.1%	42.4%
Professional Staff	341,242	363,322	372,842	383,073	371,646
<i>% of Total</i>	38.4%	38.3%	38.0%	38.3%	36.3%
Service Maintenance Workers	55,204	62,837	65,918	66,399	73,955
<i>% of Total</i>	6.2%	6.6%	6.7%	6.6%	7.2%
Secretarial/Clerical	64,072	66,820	67,884	67,550	72,884
<i>% of Total</i>	7.2%	7.0%	6.9%	6.8%	7.1%
Technical/Paraprofessional	40,899	44,401	44,680	44,012	43,129
<i>% of Total</i>	4.6%	4.7%	4.6%	4.4%	4.2%
Skilled Crafts	20,895	22,787	21,932	22,572	21,025
<i>% of Total</i>	2.4%	2.4%	2.2%	2.3%	2.1%
Other	4,169	5,389	8,015	5,213	8,160
<i>% of Total</i>	0.5%	0.6%	0.8%	0.5%	0.8%
Total	887,596	948,795	980,112	999,380	1,025,140
<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

FTE growth is constrained averaging only 0.9% annually. Majority of the growth is in faculty to support enrollment. The remainder support revenue generating activities such as grants and independent business lines.

Employee FTEs	UNIVERSITY									
	Actual			Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Restricted										
Faculty	272	320	319	319	314	313	320	329	338	346
Staff	1,349	1,615	1,618	1,662	1,610	1,658	1,684	1,715	1,745	1,774
Total Restricted	1,621	1,935	1,936	1,981	1,924	1,971	2,004	2,044	2,083	2,120
<i>FTE Change (#)</i>		313	2	44	(12)	(9)	32	40	38	37
Unrestricted General University Ops										
Faculty	3,759	3,813	3,776	3,893	4,003	3,985	3,999	4,022	4,073	4,106
Staff	6,487	6,521	6,638	6,568	6,594	6,704	6,734	6,751	6,793	6,826
Total General University Ops	10,246	10,334	10,414	10,462	10,597	10,689	10,733	10,773	10,866	10,932
<i>FTE Change (#)</i>		88	80	48	183	228	44	40	94	66
Unrestricted Aux./Independent Business										
Faculty	18	13	11	13	13	13	13	13	13	13
Staff	2,549	2,516	2,765	2,913	2,984	2,990	2,992	2,995	2,997	2,998
Total Aux./Independent Business	2,567	2,529	2,776	2,926	2,997	3,003	3,005	3,008	3,010	3,011
<i>FTE Change (#)</i>		(38)	247	150	222	77	2	3	2	1
Total Faculty & Staff	14,434	14,798	15,126	15,667	15,518	15,966	16,050	16,139	16,279	16,388
		2.5%	2.2%	3.6%	2.6%	1.9%	0.5%	0.6%	0.9%	0.7%

In FY18, UMass undertook a comprehensive review of how staffing was reported across the campuses in order to provide consistent data for analysis. The changes were retroactive to FY17, therefore staff counts prior to FY17 are excluded from the presentation.

Staffing Ratios

Staffing ratios remain consistent year-over-year.

<i>Student - Faculty</i>	Actual		Budget	Actual	Budget
	FY2017	FY2018	FY2019	FY2019	FY2020
Student (FTE)	63,978	64,530	65,760	65,348	65,816
Faculty (FTE)	4,049	4,146	4,199	4,225	4,225
Student-Faculty Ratio	15.8	15.6	15.7	15.5	15.6

<i>Staff - Faculty (All)</i>	Actual		Budget	Actual	Budget
	FY2017	FY2018	FY2019	FY2019	FY2020
Staff (FTE)	10,385	10,652	10,818	10,953	11,143
Faculty (FTE)	4,049	4,146	4,199	4,225	4,225
Staff-Faculty Ratio	2.6	2.6	2.6	2.6	2.6

<i>Staff - Faculty (E&G)</i>	Actual		Budget	Actual	Budget
	FY2017	FY2018	FY2019	FY2019	FY2020
Staff (FTE)	6,487	6,521	6,586	6,591	6,568
Faculty (FTE)	3,759	3,813	3,866	3,883	3,893
Staff-Faculty Ratio (E&G)	1.7	1.7	1.7	1.7	1.7

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:

- ✓ [FY19 Report](#)



Sources and Categories of Financial Aid Defined

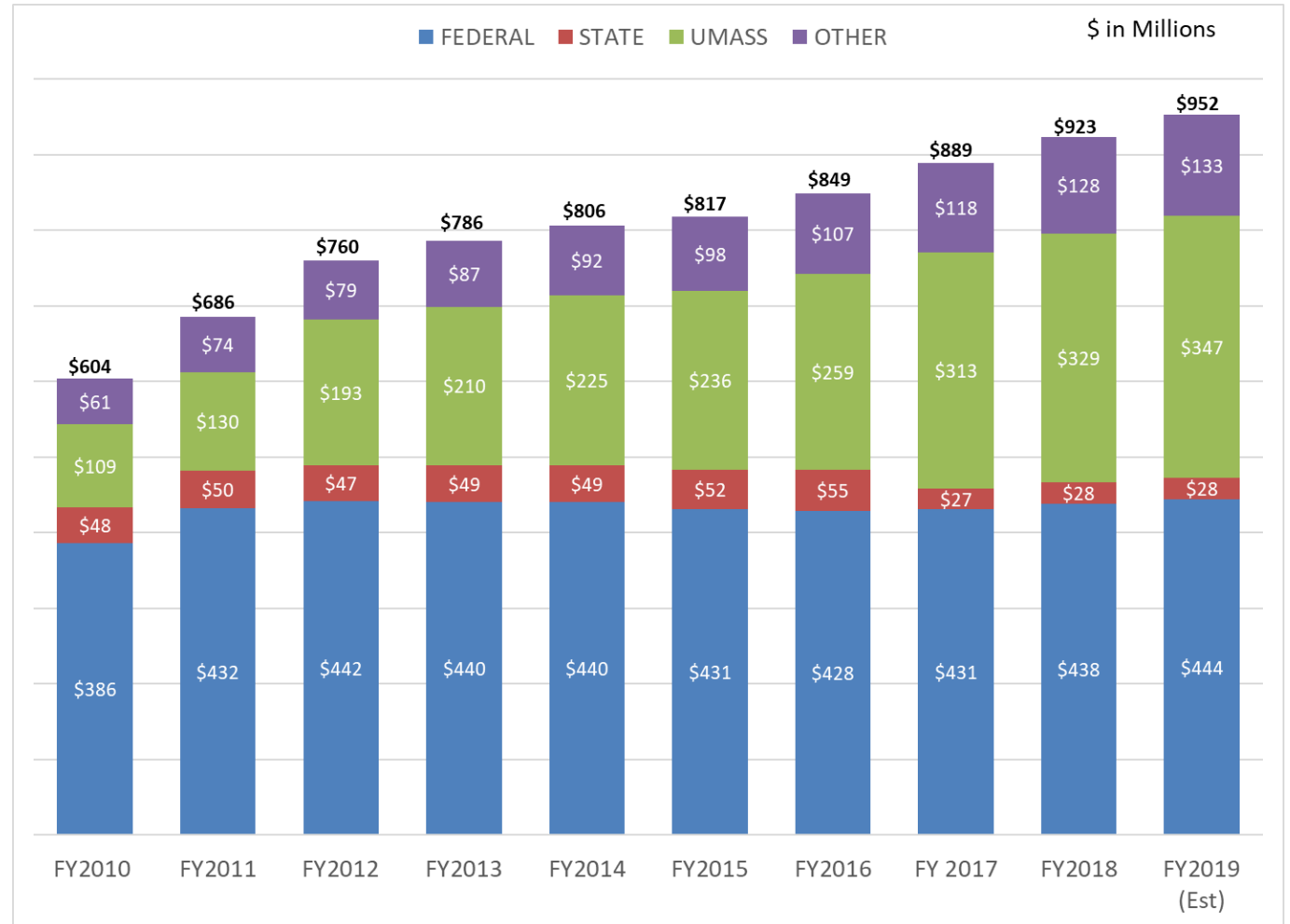
94% of University-funded need based financial aid goes to in-state students

- 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 \$238 million, or 218%, since FY10, while federal funding has remained stagnant and state funding has eroded.

- FY19 total financial aid from all sources is projected to increase by 3% to \$952 million
- **University funded financial aid:**
 - Totaled \$347 million in FY19 which represents 5% growth over FY18
 - 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 FY18 being \$31,095



Investment in Financial Aid

<i>\$ in Thousands</i>	Actual					Budget	Forecast				
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Tuition Discounts	222,164	244,025	288,708	311,947	328,830	342,748	360,961	376,071	387,908	400,549	413,262
<i>Discount Rate</i>	22.5%	22.5%	22.5%	22.5%	22.5%	27.1%	27.6%	27.6%	27.4%	27.3%	27.2%
Scholarships & Fellowships	49,300	44,645	47,706	50,402	49,507	52,996	55,088	56,348	57,579	58,896	60,207
Total	271,464	288,670	336,414	362,349	378,337	395,744	416,049	432,419	445,487	459,445	473,469
Amherst	119,476	129,333	156,819	169,040	168,209	180,968	193,037	201,200	209,284	217,593	225,521
Boston	56,565	61,518	69,981	74,970	82,819	83,106	89,072	94,183	95,949	97,767	99,641
Dartmouth	43,206	40,988	43,000	43,818	48,064	48,244	47,739	48,940	50,261	51,657	53,137
Lowell	50,151	54,551	63,833	71,201	75,010	78,661	81,303	83,109	85,005	87,365	90,031
Medical School	2,060	2,269	2,751	3,320	4,235	4,764	4,898	4,986	4,989	5,063	5,139
Total	271,464	288,670	336,414	362,349	378,337	395,744	416,049	432,419	445,487	459,445	473,469

Note: As a result of varying methodologies to calculate financial aid, the totals in this table may differ from totals shown in other charts depending on how they are presented.

Average Financial Aid Package: In-State Undergraduates with Need

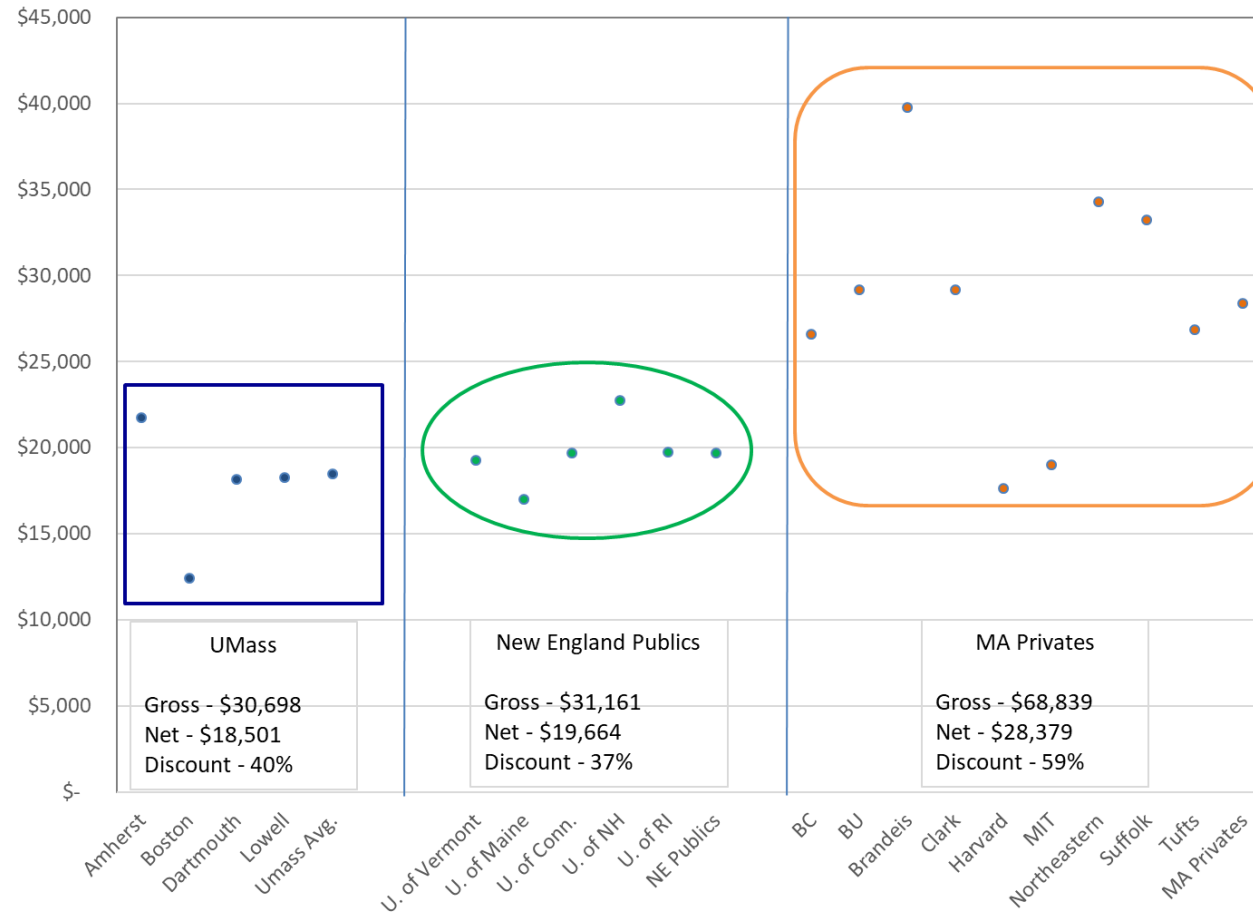
Financial aid at UMass is targeted toward those who need it most.

Federal Income Range	Average Financial Aid Package	Composition of Average Financial Aid Package		
		Grant Award	Loan Award	Work Award
Less than \$30,000	\$ 19,738	53%	37%	10%
\$30,000 - \$40,000	\$ 19,149	54%	35%	11%
\$40,001 - \$50,000	\$ 18,711	54%	36%	11%
\$50,001 - \$75,000	\$ 16,607	49%	40%	12%
\$75,001 - \$100,000	\$ 13,163	40%	46%	14%
Greater than \$100,000	\$ 8,500	33%	51%	16%

- 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

FY18 Net Price Regional Comparison

The cost of a UMass education is lower than the cost of attending other public research universities in New England or private colleges in Massachusetts.



- Net price is defined as the average cost of attendance after accounting for all types of free aid, including grants and scholarships.

Note: Net Price is calculated from IPEDS data and based on First-time/Full Time In-State Undergraduates receiving grant or scholarship

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](#)

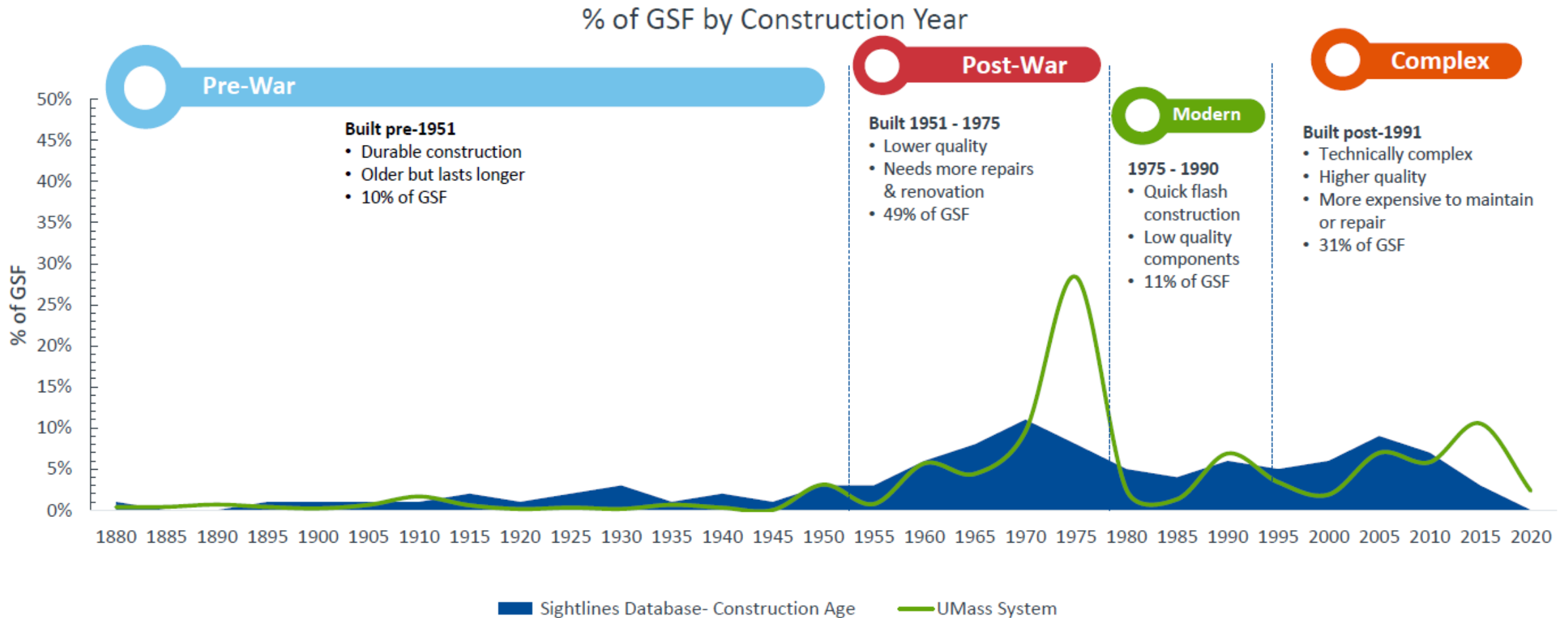


FY19 – FY23 Capital Plan

- \$2.1 billion five-year capital plan adopted by the Board in September 2018
- 25.1 million gross square feet
- 330 Buildings
- \$12.6 billion replacement value
- 66% of the space is over 25 years old
- \$4.4 billion identified backlog: \$3.3 billion Education & General space, \$1 billion Auxiliary space
 - Recent policy changes aimed at addressing deferred maintenance
- FY19 total debt: \$3.0 billion
- FY19 debt service: \$221 million

Age of UMass Buildings

67% of buildings were constructed during the Post-War and Modern eras – between 1951 and 1990.

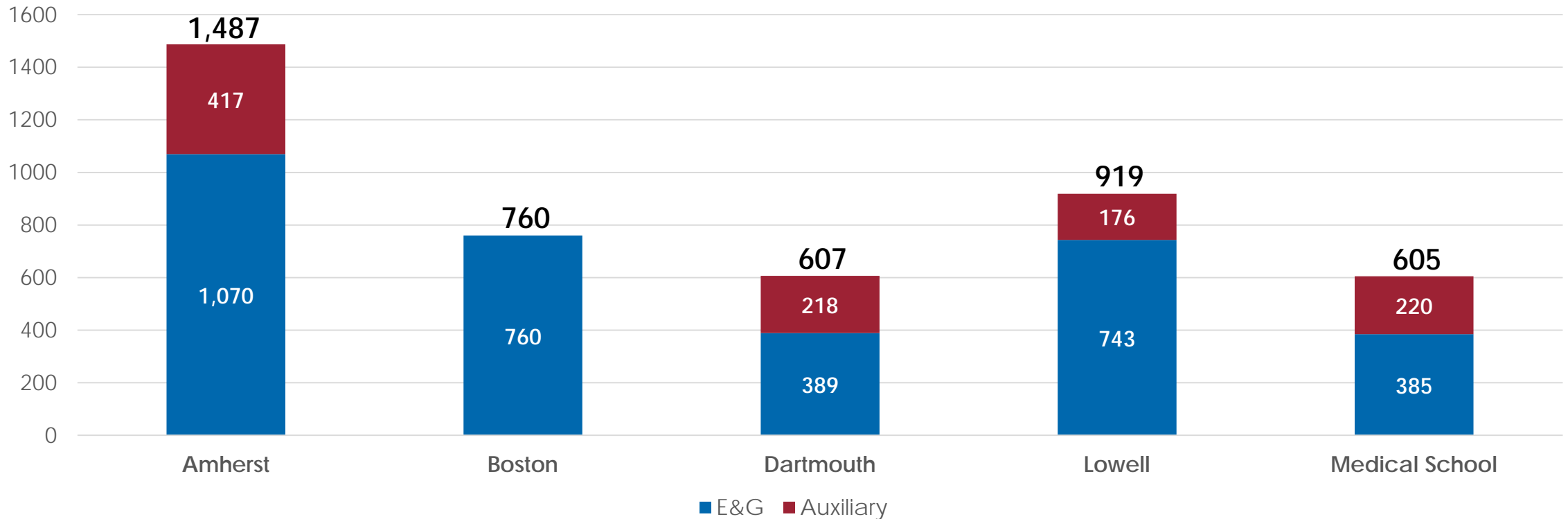


UMass Deferred Maintenance

The need for investment in deferred maintenance at UMass is approximately \$4.4 billion – with \$3.4 billion needed in education & general spaces and \$1 billion needed in auxiliary spaces.

FY2018

\$ in millions

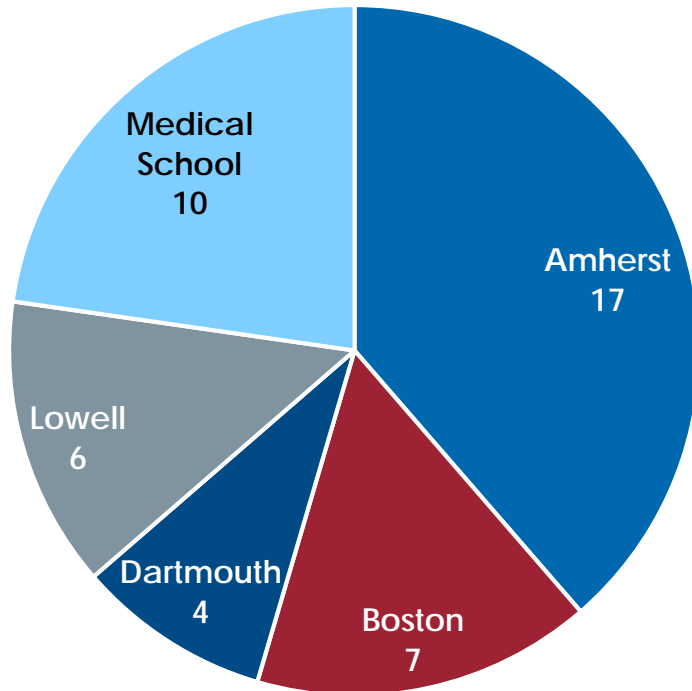


Updated deferred maintenance data will be released in April 2020.

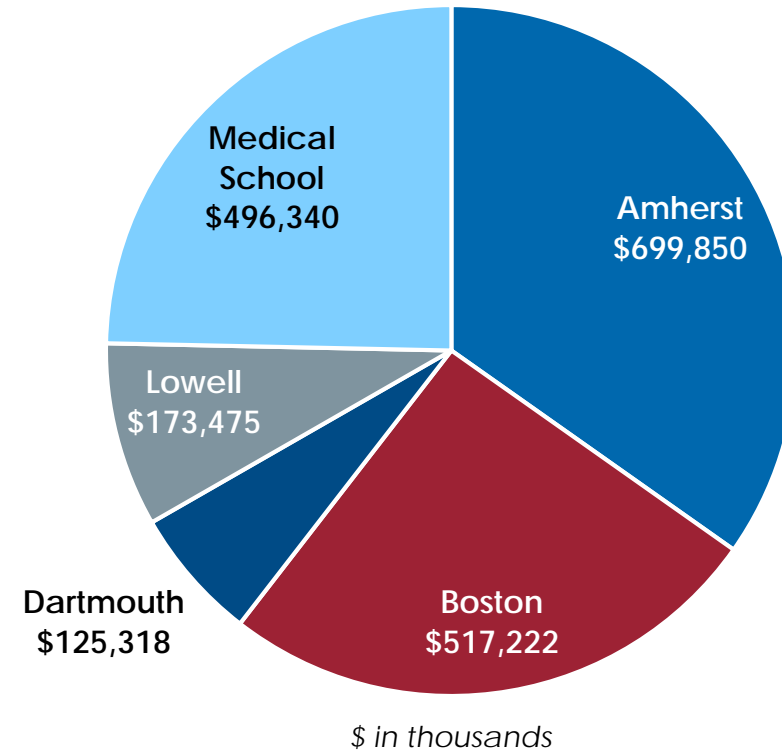
UMass Capital Projects

Current plan has 36 projects totaling \$1.7 billion. Approximately 72% of the projects are in final design and construction phases.

Number of Projects



Estimated Cost of Projects



FY19 – FY23 Capital Plan: Amherst 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
Amherst	Goodell Renovation	\$35,000,000	1 - Conceptual
Amherst	Thompson Deferred Maintenance	\$2,250,000	1 - Conceptual
Amherst	Goessmann, SPHHS Renovations	\$14,300,000	4 - Study / Schematic Design
Amherst	Energy Improvements	\$15,000,000	4 - Study / Schematic Design
Amherst	Fine Arts Center renovations	\$11,000,000	5 - Design
Amherst	Central Heating Plant Boiler/Co-Gen Fitout	\$25,000,000	5 - Design
Amherst	Office/Lab/Academic Renovations	\$52,500,000	6 - Final Design / Early Construction Packages
Amherst	Whitmore deferred maintenance	\$4,000,000	7 - Construction
Amherst	Worcester Dining Commons Renovation	\$68,000,000	7 - Construction
Amherst	Life Science Laboratories backfill renovations	\$18,000,000	7 - Construction
Amherst	McGuirk Scoreboard & Seasonal Bubble	\$18,000,000	7 - Construction
Amherst	Campus Central Core Project	\$31,000,000	7 - Construction
Amherst	Replace Oil Filled Transformers	\$2,000,000	7 - Construction
Amherst	Student Union Building	\$64,000,000	7 - Construction
Amherst	Isenberg School of Management renovations and addition	\$64,000,000	8 - Substantial Completion
Amherst	Life Science Laboratories	\$174,000,000	8 - Substantial Completion
Amherst	Physical Sciences Building	\$101,800,000	9A - Construction Complete
	Total	\$699,850,000	

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)	\$114,500,000	5 - Design
Boston	Renovations to Existing Academic Buildings (McCormack Hall and Wheatley Hall) (Master Plan Phase I)	\$42,453,767	7 - Construction
Boston	Utility Corridor and Roadway Relocation Project (Master Plan Phase I)	\$259,500,000	8 - Substantial Completion
Boston	Clark Athletic Center: Replace Gymnasium Roof and East Curtain Wall and Repair Rink South Façade	\$5,195,000	9A - Construction Complete
Boston	Construct New Garage Facility (Master Plan Phase I)	\$69,275,000	9A - Construction Complete
Boston	Elevator Renovations in Clark Athletic Center, McCormack Hall, Quinn Administration Building, and Wheatley Hall	\$8,300,000	9A - Construction Complete
Boston	Construct University Dining Facility in New Residence Hall 1	\$17,998,636	9B - Financially Complete
Total		\$517,222,403	

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	5 - Design
Dartmouth	Research Laboratory Improvements	\$13,878,138	9A - Construction Complete
Dartmouth	SMAST / DMF Expansion	\$55,000,000	9A - Construction Complete
Dartmouth	Classroom, Teaching Laboratory, and Learning Space Improvements	\$11,440,000	9A - Construction Complete
	Total	\$125,318,138	

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	2 - Feasibility Report
Lowell	Science & Engineering Master Plan-Olsen Renovations 1	\$10,825,000	7 - Construction
Lowell	Coburn Hall Renewal and Addition	\$48,850,000	7 - Construction
Lowell	AEP	\$28,500,000	8 - Substantial Completion
Lowell	Pasteur Second, Third, and Fourth Floors – Comprehensive Renovation	\$16,800,000	8 - Substantial Completion
Lowell	Science & Engineering Master Plan-Perry Hall, Engineering, Renewal	\$50,000,000	8 - Substantial Completion
Total		\$173,475,000	

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	Departmental equipment purchases	\$10,000,000	1 - Conceptual
Medical School	Library repurposing and renovations	\$5,500,000	1 - Conceptual
Medical School	New Education and Research Facility	\$300,000,000	1 - Conceptual
Medical School	Parking Lot Maintenance - Main Campus	\$10,840,000	1 - Conceptual
Medical School	Power Plant Expansion	\$50,000,000	1 - Conceptual
Medical School	VA-1 Expansion to South Road Garage	\$10,000,000	5 - Design
Medical School	VA-1 Mass DOT Building Demolition	\$2,000,000	5 - Design
Medical School	VA-1 Worcester VA Community Based Outpatient Clinic - New Facility - Phase 1	\$78,000,000	5 - Design
Medical School	Lab Renovations	\$14,500,000	7 - Construction
Medical School	REN - 4 Clinical Wing Lab to Office Conversions (Floor 2 - 7)	\$15,500,000	7 - Construction
Total		\$496,340,000	

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
Boston	Construct New Residence Hall	\$119,384,358	9B - Financially Complete
Dartmouth	New Housing/Dining Facility	\$135,760,000	7 – Construction
Lowell	Tsongas Center Annex	\$12,000,000	2 – Feasibility Report
Total		\$497,544,358	

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	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

Acquisitions and dispositions include all transactions dating back to 2015 with values of more than \$2 million (with the exception of Bayside, as disposition is pending).

Updates:

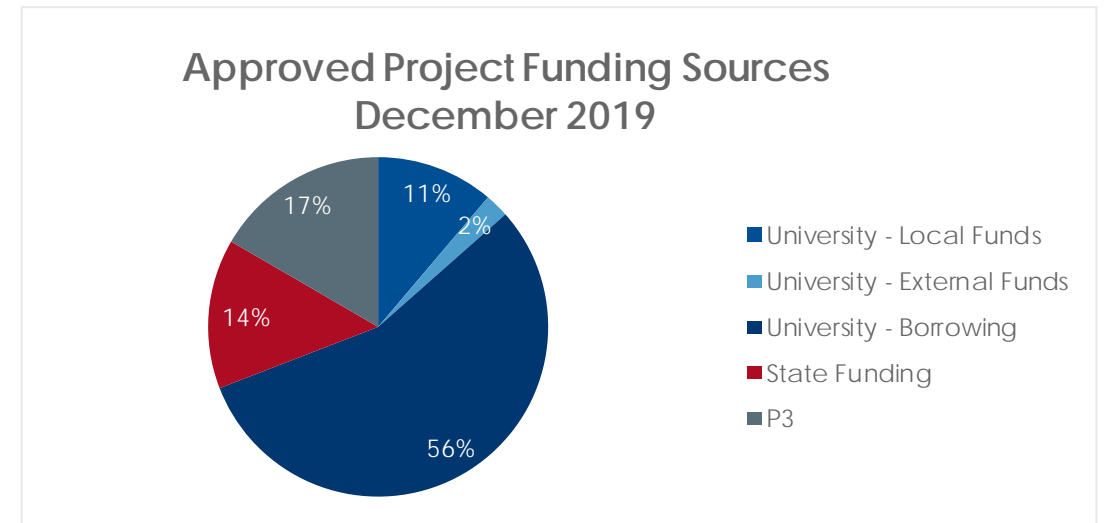
- On February 14, 2019, UMass designated Accordia Partners to build a mixed-use urban innovation campus on the 19.94-acre Bayside property, bought by UMass for \$18.7 million in 2010. Accordia offered up to \$235 million for the 99-year-lease which is currently being finalized.

Funding Sources

86% of capital projects are funded by the university - only 14% is funded by the Commonwealth

- **Borrowing** – 56% of the University’s capital plan is supported from borrowing.
 - Debt service payments in FY19 were \$221 million.
- **State Capital Funding:**
 - FY18 - \$78M Substructure demolition (UMB);
 - FY19 - \$25M SENG renovation (UMD).
- **P3** – UMD has a P3 project underway; UMB recently completed a P3 project; UMA is exploring a P3 to meet housing needs on its campus.

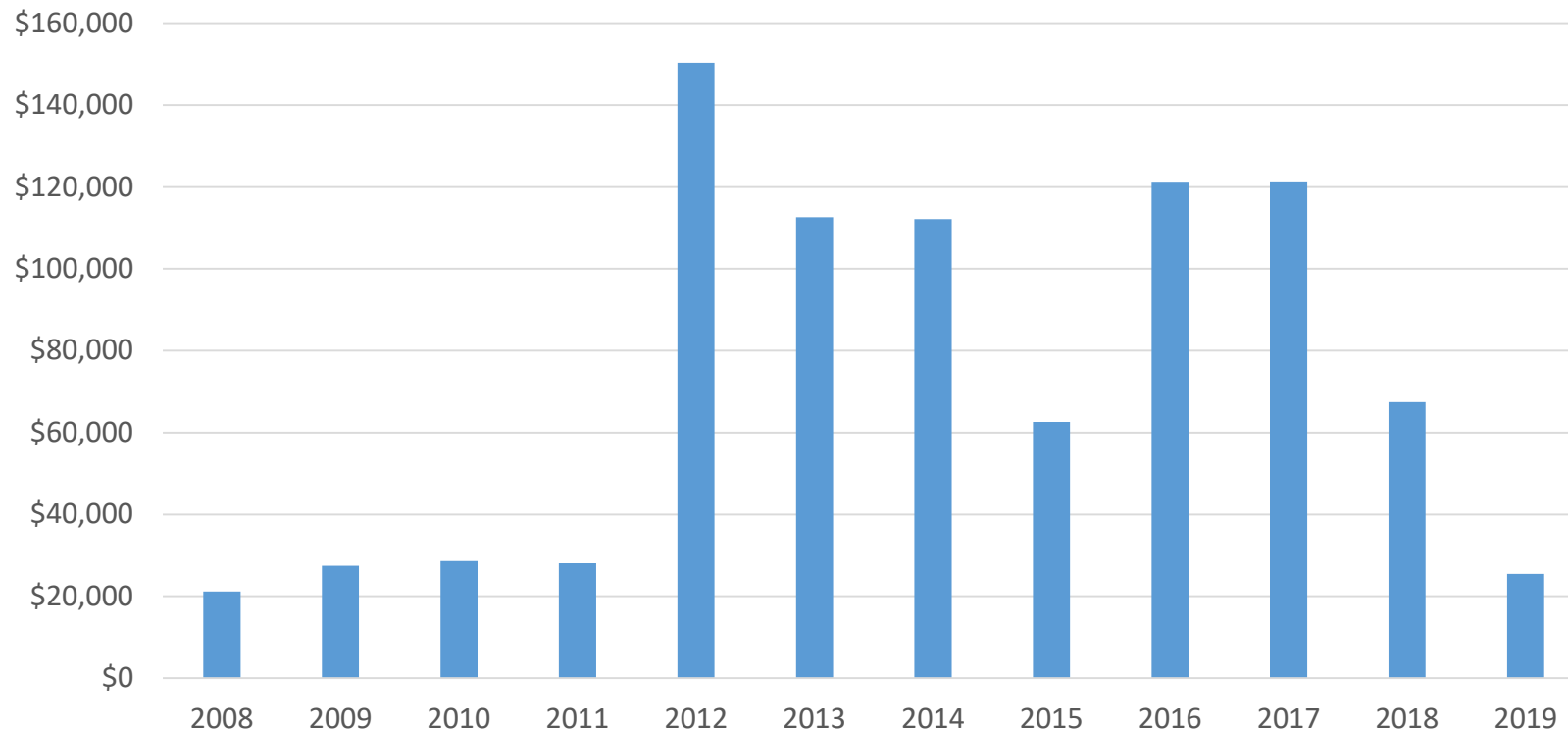
FY2020 Q2				
Funding Source	Vote 1	Vote 2	Total BOT Approved	% Total
University - Local Funds	64,440,000	171,194,635	235,634,635	11%
University - External Funds	26,000,000	22,226,000	48,226,000	2%
University - Borrowing	362,550,000	810,370,132	1,172,920,132	56%
State Funding	8,400,000	292,098,000	300,498,000	14%
P3	242,400,000	107,800,000	350,200,000	17%
TOTAL Approved Projects	703,790,000	1,403,688,767	\$2,107,478,767	



Flat or Declining State Capital Appropriations

An average annual State contribution of \$73.2M 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.

Debt Burden Ratio	FY16 Actual	FY17 Actual	FY18 Actual	FY19 Actual	FY20 Budget	FY21 Forecast	FY22 Forecast	FY23 Forecast	FY24 Forecast	FY25 Forecast
UMA	6.4%	6.6%	6.8%	6.5%	6.8%	7.2%	6.5%	6.3%	6.3%	6.5%
UMB	4.9%	5.9%	6.3%	6.9%	7.9%	7.8%	7.4%	7.2%	6.6%	5.9%
UMD*	8.4%	7.8%	7.6%	7.8%	7.0%	8.4%	7.4%	7.2%	7.3%	7.0%
UML+	7.5%	7.3%	7.4%	7.3%	7.5%	8.2%	7.8%	7.4%	7.1%	6.4%
UMMS**	5.2%	6.0%	5.1%	5.5%	5.6%	4.7%	4.9%	5.2%	6.2%	5.7%
Total	6.2%	6.6%	6.5%	6.6%	6.8%	6.9%	6.5%	6.4%	6.5%	6.2%

Sources: FY19: FY19 actuals; FY20: FY20 operating budget; FY21-25: December 2019 Financial Forecast Refresh

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

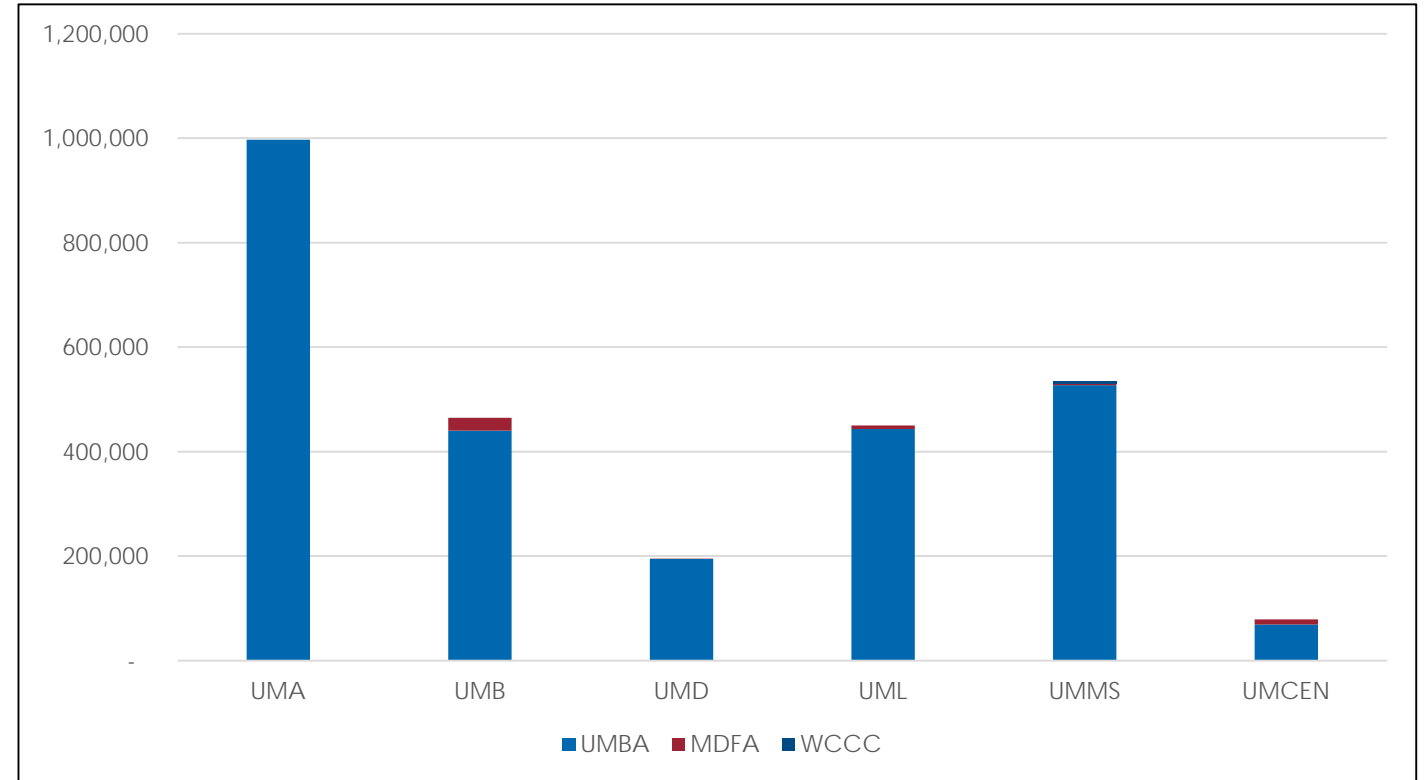
+Assumes level debt service for 2020 borrowing starting in FY21; will be adjusted based on final debt structure.

**Note: reflects \$215M of borrowing for the new research building; the ratios will be 5.4%, 6.8%, and 6.1% in FY23, FY24, and FY25 respectively for \$300M of borrowing.

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

University Outstanding Debt

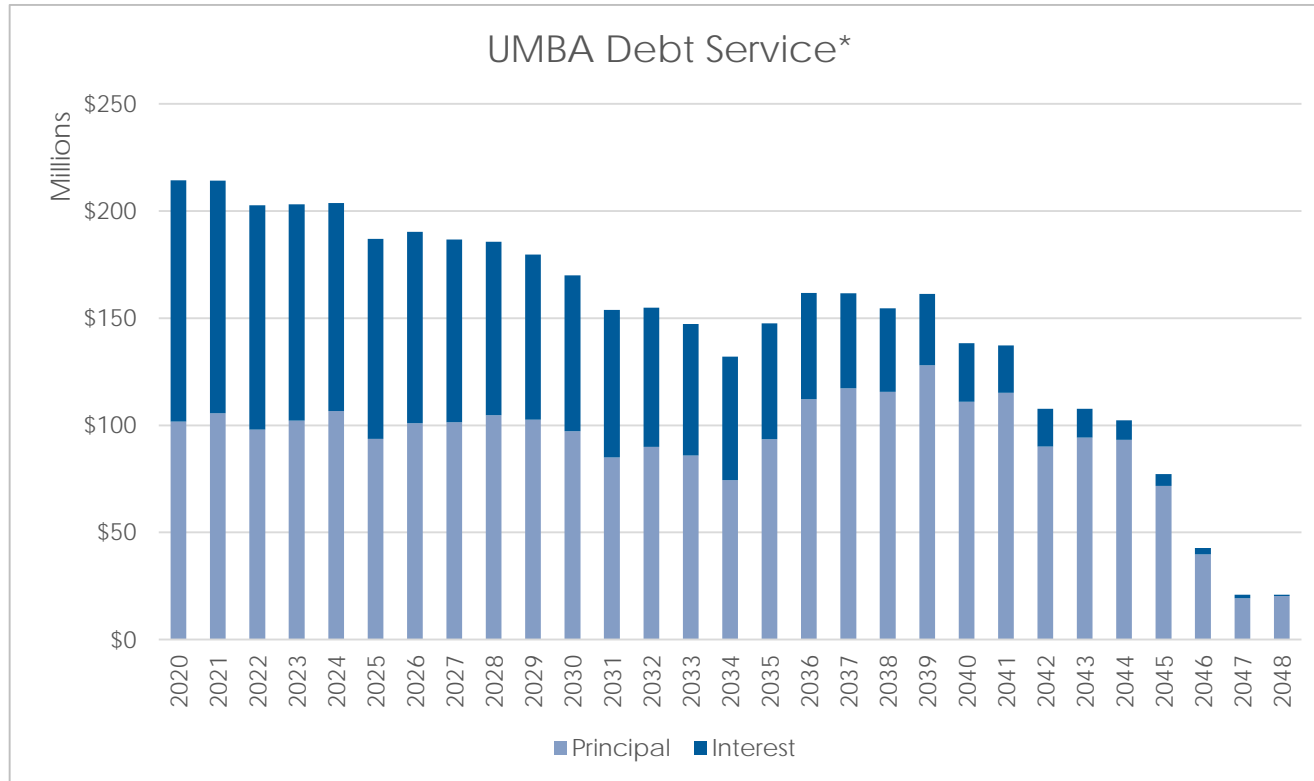
- The University had \$2.7 billion in outstanding debt as of 6/30/19
- University debt consists of University of Massachusetts Building Authority (UMBA) bonds, Massachusetts Development Finance Agency (MDFA) bonds, & Worcester City Campus Corporation (WCCC) bonds:
 - UMBA principal = \$2.7 billion
 - MDFA principal = \$44.5 million
 - WCCC principal = \$5.5 million



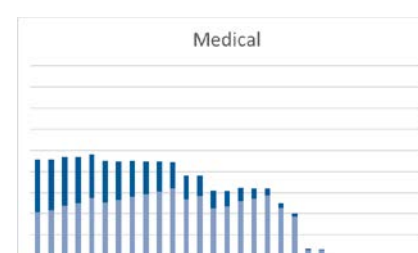
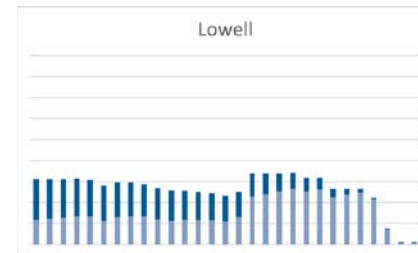
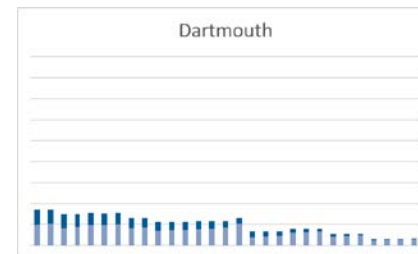
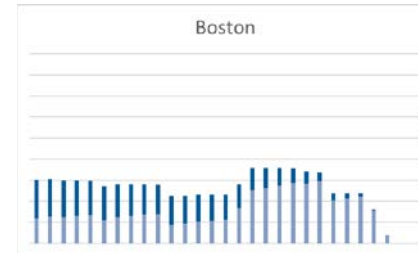
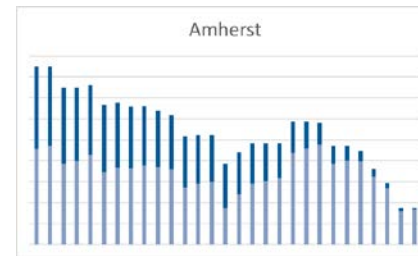
*Outstanding long term debt includes principal only; does not include unamortized premium associated with UMBA bond premium or capital leases.

University of Massachusetts Building Authority Bonds

- UMBA debt profile as of June 30, 2019 totals \$2.7 billion
- 54.3% of outstanding UMBA bonds are payable within 15 years

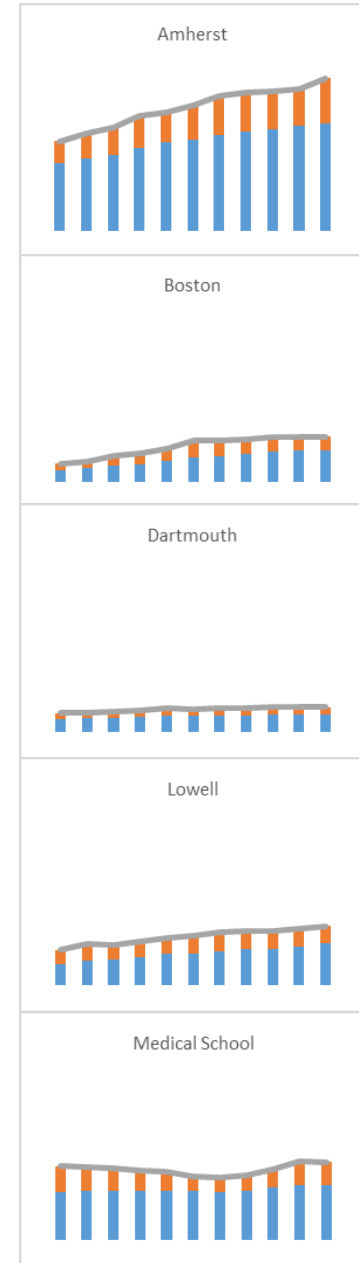
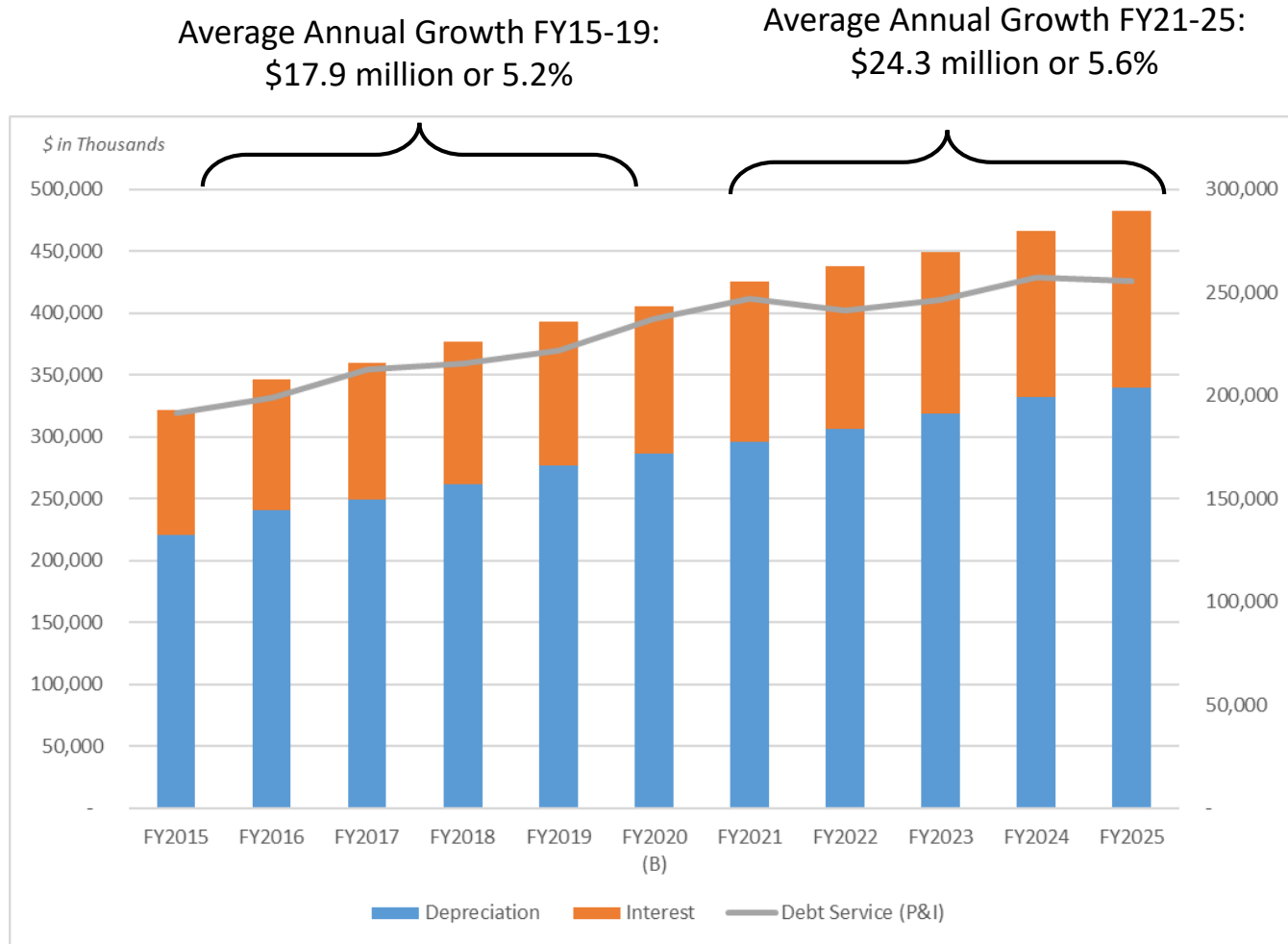


*Does not include outstanding MDFA/WCCC debt



Depreciation & Interest

Annual average growth of over 5% is one of the University's largest expense drivers.



#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 from 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 cites the university's "strong credit quality systems and scope of operations ... and its excellent strategic positioning that incorporates strengthened fiscal oversight."
- Moody's also recognizes UMass for its "important role in Massachusetts higher education," "strong fiscal oversight," and "growing enrollment, net tuition revenue, and research activity."



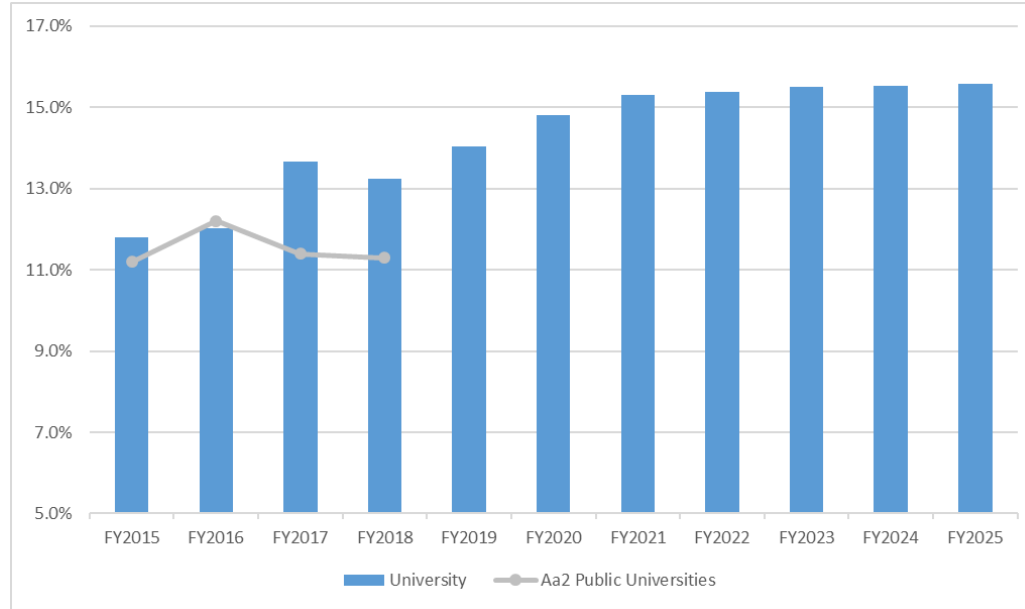
Rating
Aaa
Aa1
Aa2
Aa3
A1
A2
A3
Baa1
Baa2
Baa3
Ba1
Ba2
Ba3
B1
B2
B3
Caa1
Caa2
Caa3
Ca

Highest

Lowest

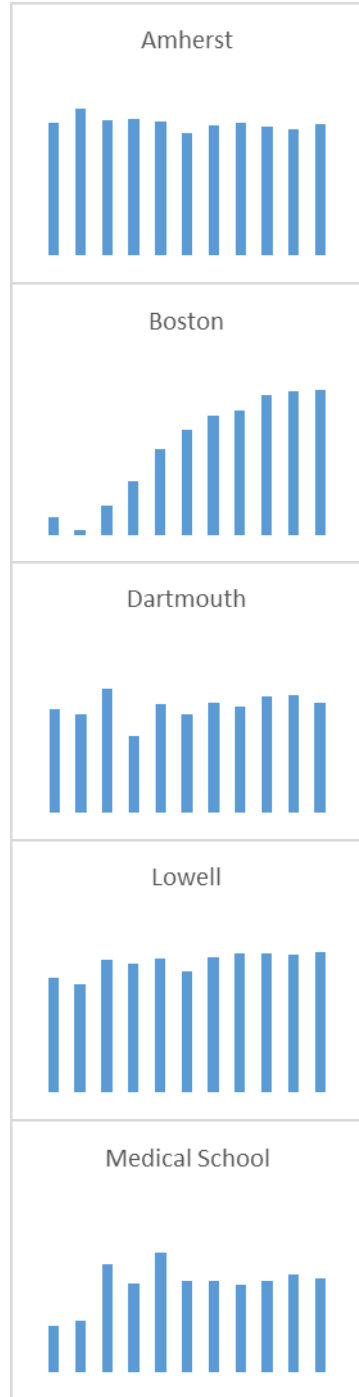
Operating Cash Flow Margin

UMass' average ratio of 15.5% reflects improved financial performance and is higher than the median peer ratio of 11.5%



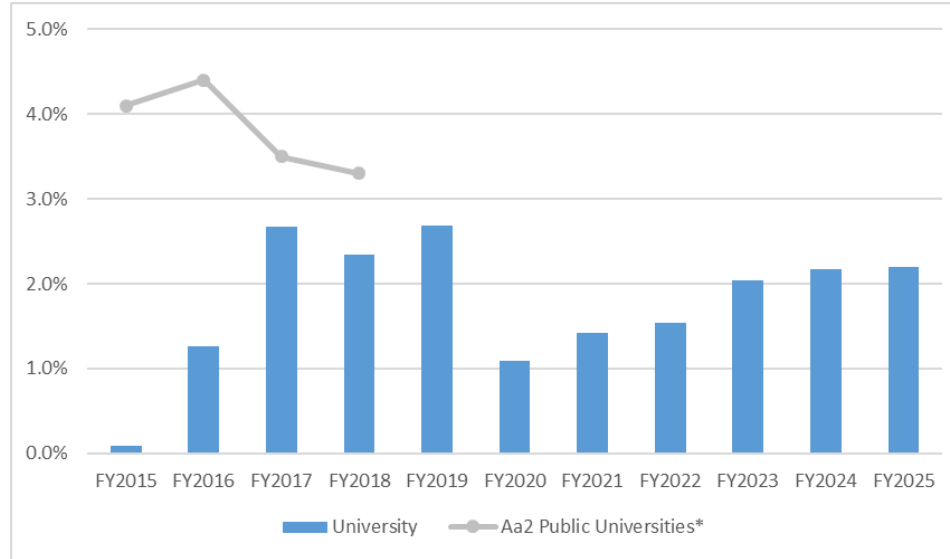
	Actual					Budget	Forecast				
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Amherst	14.6%	15.6%	14.8%	14.8%	14.6%	13.8%	14.3%	14.5%	14.3%	14.1%	14.5%
Boston	6.4%	5.4%	7.1%	9.0%	11.2%	12.6%	13.7%	14.1%	15.1%	15.5%	15.6%
Dartmouth	12.5%	12.1%	13.9%	10.6%	12.8%	12.2%	12.9%	12.7%	13.4%	13.5%	12.9%
Lowell	13.3%	12.8%	14.6%	14.3%	14.7%	13.7%	14.7%	15.0%	15.0%	15.0%	15.1%
Medical	8.4%	8.7%	12.8%	11.5%	13.7%	11.6%	11.6%	11.4%	11.6%	12.1%	11.8%
Central	14.6%	17.0%	17.7%	17.5%	12.0%	7.0%	6.5%	6.9%	6.8%	7.0%	7.0%
University	11.8%	12.0%	13.7%	13.3%	14.0%	14.8%	15.3%	15.4%	15.5%	15.5%	15.6%

Excludes impact of GASB 68 & 75



Operating Margin

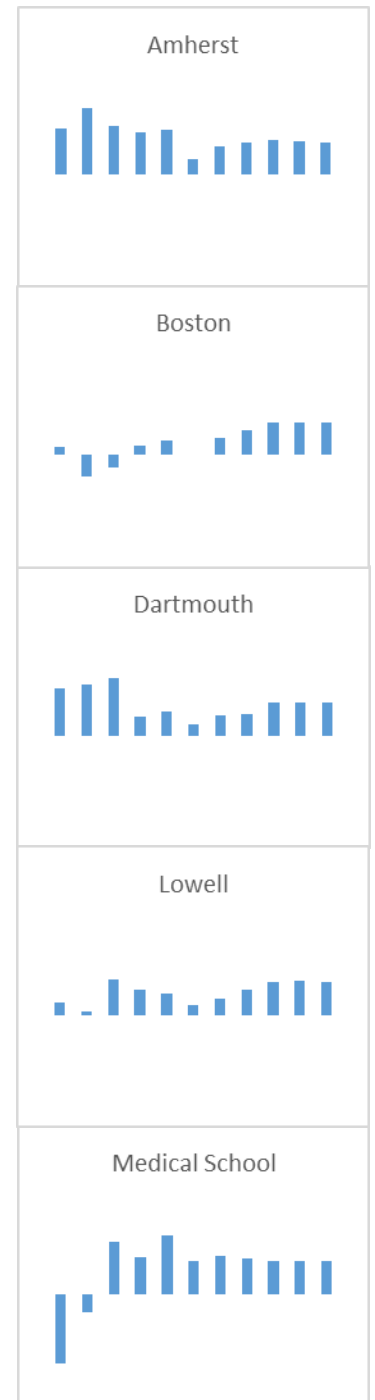
Each campus has been required to build to a 2.0% margin by the end of FY23. Several campuses achieving 2% sooner. Peers compare at 3.8%.



*Moody's OM calculation which uses normalized investment income

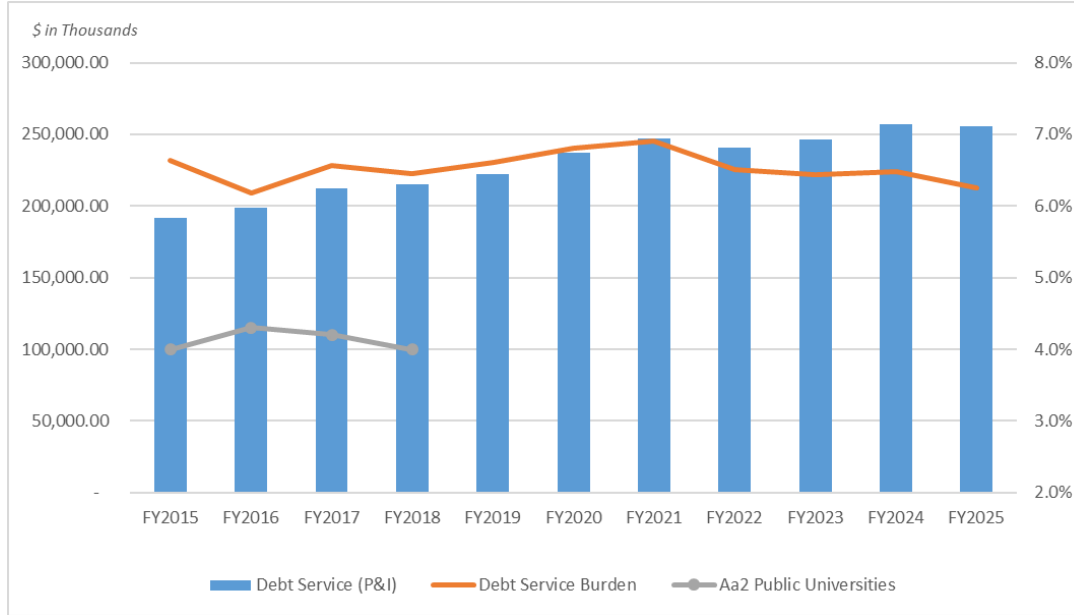
	Actual					Budget	Forecast				
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Amherst	2.8%	4.1%	3.0%	2.6%	2.7%	1.0%	1.7%	2.0%	2.1%	2.0%	2.0%
Boston	0.5%	-1.3%	-0.7%	0.6%	0.9%	0.0%	1.0%	1.5%	2.0%	2.0%	2.0%
Dartmouth	2.8%	3.1%	3.4%	1.1%	1.4%	0.7%	1.2%	1.2%	2.0%	2.0%	2.0%
Lowell	0.8%	0.2%	2.2%	1.5%	1.3%	0.6%	1.0%	1.5%	2.0%	2.0%	2.0%
Medical	-4.2%	-1.1%	3.2%	2.2%	3.5%	2.0%	2.3%	2.1%	2.0%	2.0%	2.0%
Central	-1.5%	0.7%	6.4%	10.4%	8.9%	2.0%	1.8%	2.0%	2.0%	2.0%	2.0%
University	0.1%	1.3%	2.7%	2.3%	2.7%	1.1%	1.7%	1.9%	2.1%	2.0%	2.0%

Excludes impact of GASB 68 & 75

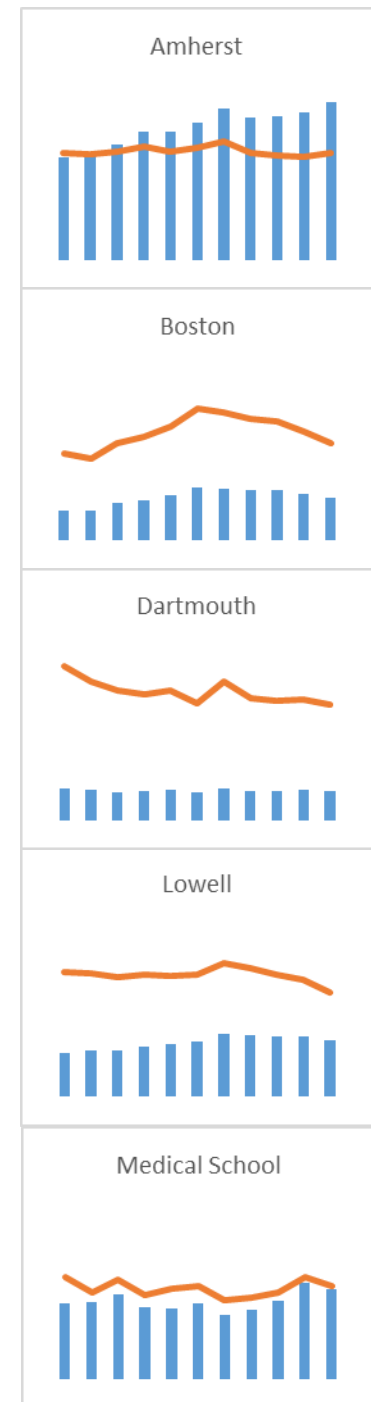


Debt Service Burden

A key measure in determining our capacity to issue debt. Our average ratio over the forecast of 6.5% is higher than our peers at 4.1%



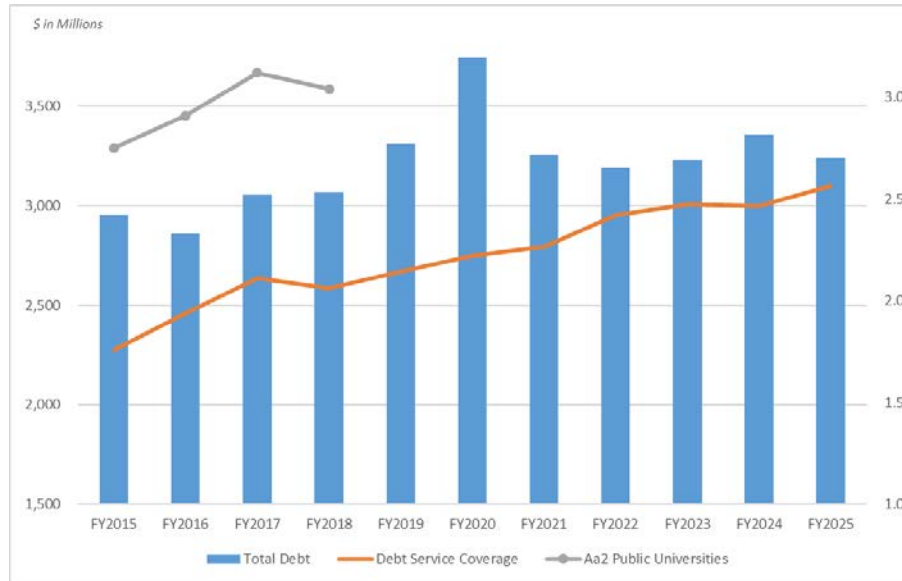
	Actual					Budget	Forecast				
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Amherst	6.4%	6.4%	6.6%	6.8%	6.5%	6.8%	7.2%	6.5%	6.3%	6.3%	6.5%
Boston	5.2%	4.9%	5.9%	6.3%	6.9%	7.9%	7.8%	7.4%	7.2%	6.6%	5.9%
Dartmouth*	9.3%	8.4%	7.8%	7.6%	7.8%	7.0%	8.4%	7.4%	7.2%	7.3%	7.0%
Lowell+	7.6%	7.5%	7.3%	7.4%	7.3%	7.5%	8.2%	7.8%	7.4%	7.1%	6.4%
Medical**	6.2%	5.2%	6.0%	5.1%	5.5%	5.6%	4.7%	4.9%	5.2%	6.2%	5.7%
Central	3.1%	3.7%	3.4%	2.8%	4.5%	3.9%	3.9%	3.9%	4.1%	2.7%	3.7%
University	6.6%	6.2%	6.6%	6.5%	6.6%	6.8%	6.9%	6.5%	6.4%	6.5%	6.2%



Excludes impact of GASB 68 & 75; excludes potential 2020 refunding; UMA: includes new borrowing in FY21 & FY24
 *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.
 **Reflects \$215M of borrowing for the new research building in FY23; the ratios will be 5.4%, 6.8%, and 6.1% in FY23, FY24, and FY25 respectively for \$300M of borrowing.

Debt Service Coverage

Below Aa2 rated peers at 3.0; UMass' ratio will only improve as the operating margin improves.

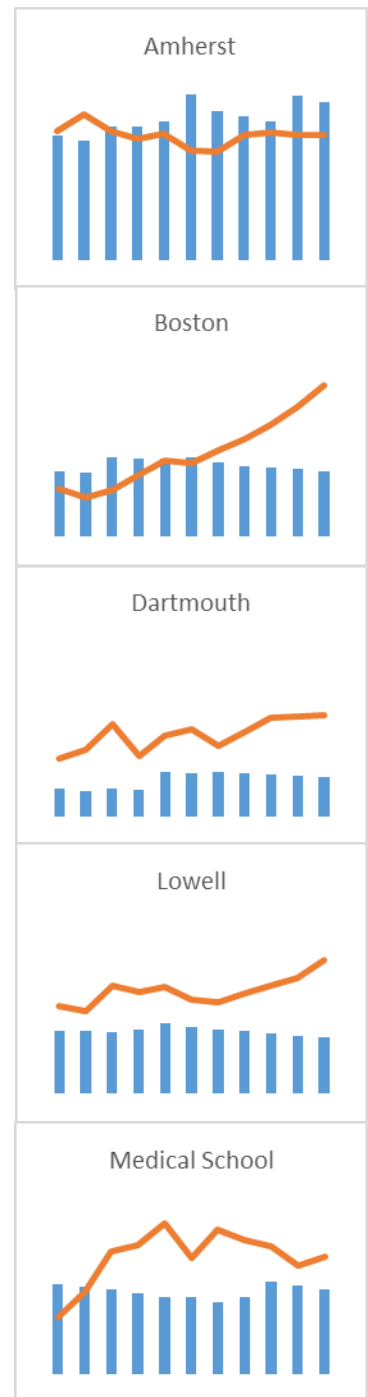


	Actual					Budget	Forecast				
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Amherst	2.3	2.5	2.3	2.2	2.3	2.0	2.0	2.2	2.3	2.3	2.3
Boston	1.2	1.0	1.1	1.4	1.6	1.5	1.7	1.9	2.1	2.3	2.6
Dartmouth	1.3	1.4	1.8	1.3	1.6	1.7	1.5	1.7	1.8	1.8	1.8
Lowell	1.7	1.7	2.0	1.9	2.0	1.8	1.8	1.9	2.0	2.1	2.4
Medical	1.3	1.7	2.2	2.3	2.6	2.1	2.5	2.4	2.3	2.0	2.1
Central	4.7	4.6	5.6	7.0	2.8	1.9	1.7	1.8	1.7	2.7	1.9
University	1.8	1.9	2.1	2.1	2.1	2.2	2.3	2.4	2.5	2.5	2.6

Excludes impact of GASB 68 & 75; excludes potential 2020 refunding

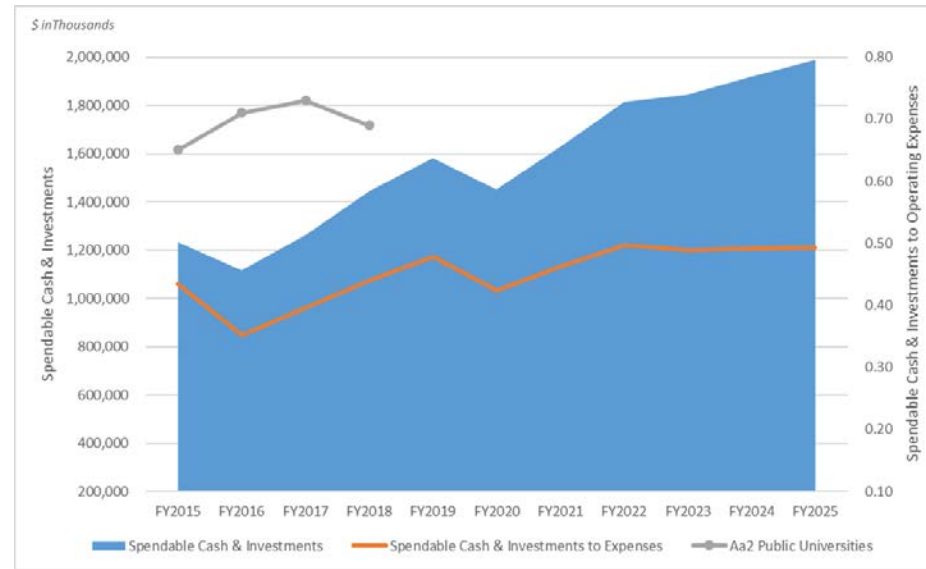
UMA: includes new borrowing in FY21 & FY24, total debt does not include P3 financing in FY21-FY25 pending decision on deal structure

UMMS: includes new borrowing in FY22 & FY23



Spendable Cash & Investments

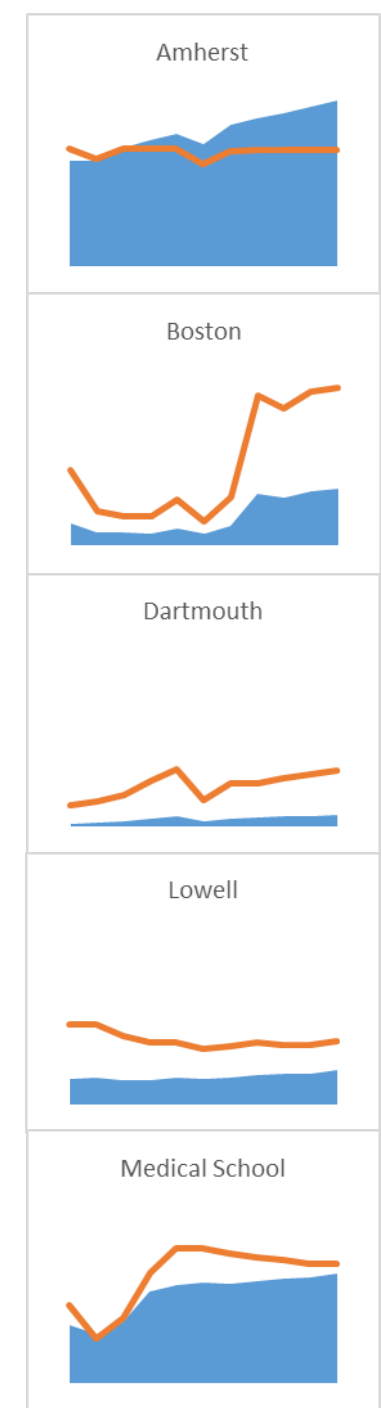
Below Aa2 rated peers at 0.49; UMass' ratio will only improve as the reserve balances improve.



	Actual					Budget	Forecast				
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Amherst	0.46	0.42	0.46	0.46	0.46	0.41	0.45	0.45	0.45	0.45	0.45
Boston	0.33	0.20	0.19	0.19	0.24	0.17	0.25	0.55	0.51	0.56	0.58
Dartmouth	0.16	0.17	0.20	0.24	0.27	0.18	0.23	0.23	0.24	0.26	0.27
Lowell	0.34	0.34	0.31	0.29	0.29	0.27	0.28	0.29	0.28	0.28	0.29
Medical	0.33	0.23	0.30	0.43	0.50	0.50	0.49	0.48	0.47	0.46	0.46
Central	1.83	1.44	1.74	1.95	2.10	1.64	1.78	1.77	1.76	1.74	1.73
University	0.43	0.35	0.40	0.44	0.48	0.42	0.46	0.50	0.49	0.49	0.49

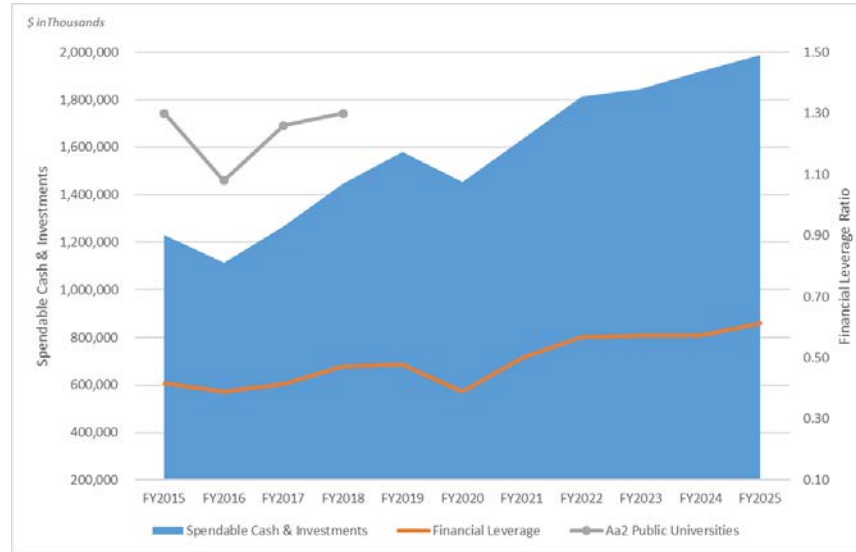
Excludes impact of GASB 68 & 75

UMB: Includes campus estimate of \$192.5M in FY22 for Bayside Expo



Financial Leverage

We forecast a significant improvement in financial leverage from a low of 0.39 in FY16 to a projected value of 0.61 in FY25, which would still be below peers. The ratio is adjusted to include P3 projects.

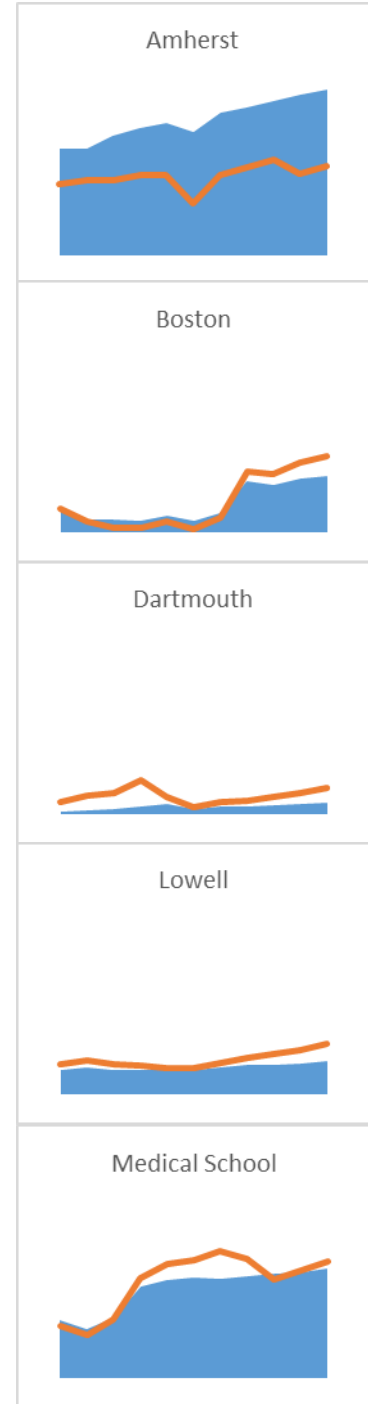


	Actual					Budget	Forecast				
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Amherst	0.46	0.48	0.48	0.49	0.54	0.38	0.53	0.57	0.62	0.54	0.58
Boston	0.22	0.15	0.12	0.12	0.16	0.12	0.18	0.43	0.42	0.48	0.52
Dartmouth	0.16	0.20	0.21	0.28	0.19	0.14	0.16	0.17	0.19	0.22	0.24
Lowell	0.25	0.27	0.25	0.24	0.24	0.25	0.27	0.30	0.32	0.34	0.38
Medical	0.38	0.34	0.42	0.64	0.72	0.74	0.79	0.75	0.64	0.68	0.73
Central	2.13	1.95	2.35	2.46	2.72	2.64	3.21	3.34	3.48	3.54	3.69
University	0.42	0.39	0.41	0.47	0.48	0.39	0.50	0.57	0.57	0.57	0.61

Excludes impact of GASB 68 & 75; excludes potential 2020 refunding

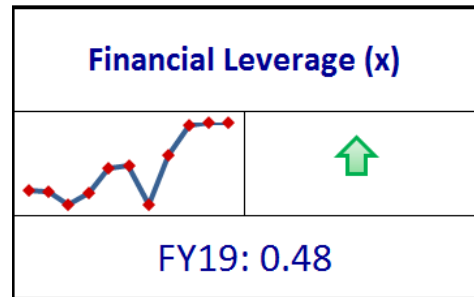
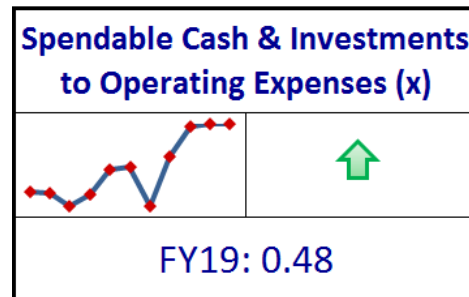
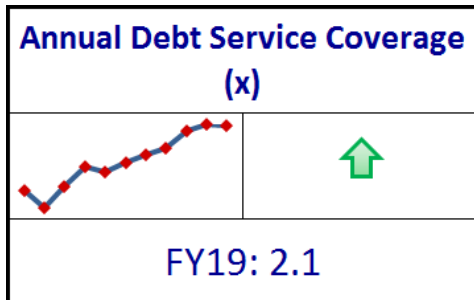
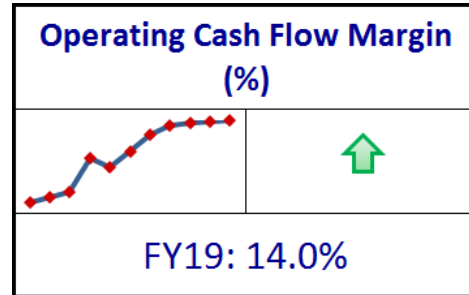
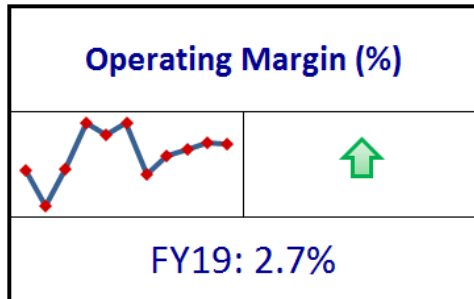
UMA: includes new borrowing in FY21 & FY24, total debt does not include P3 financing in FY21-FY25 pending decision on deal structure

UMMS: includes new borrowing in FY22 & FY23

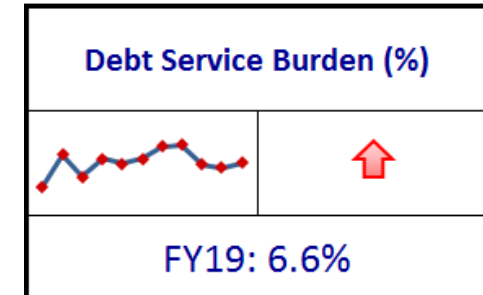
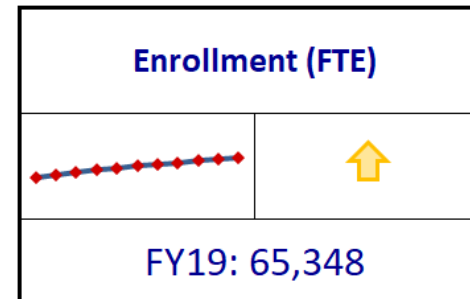


Key Financial Ratios: Take Aways

Improving



On Watch



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

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

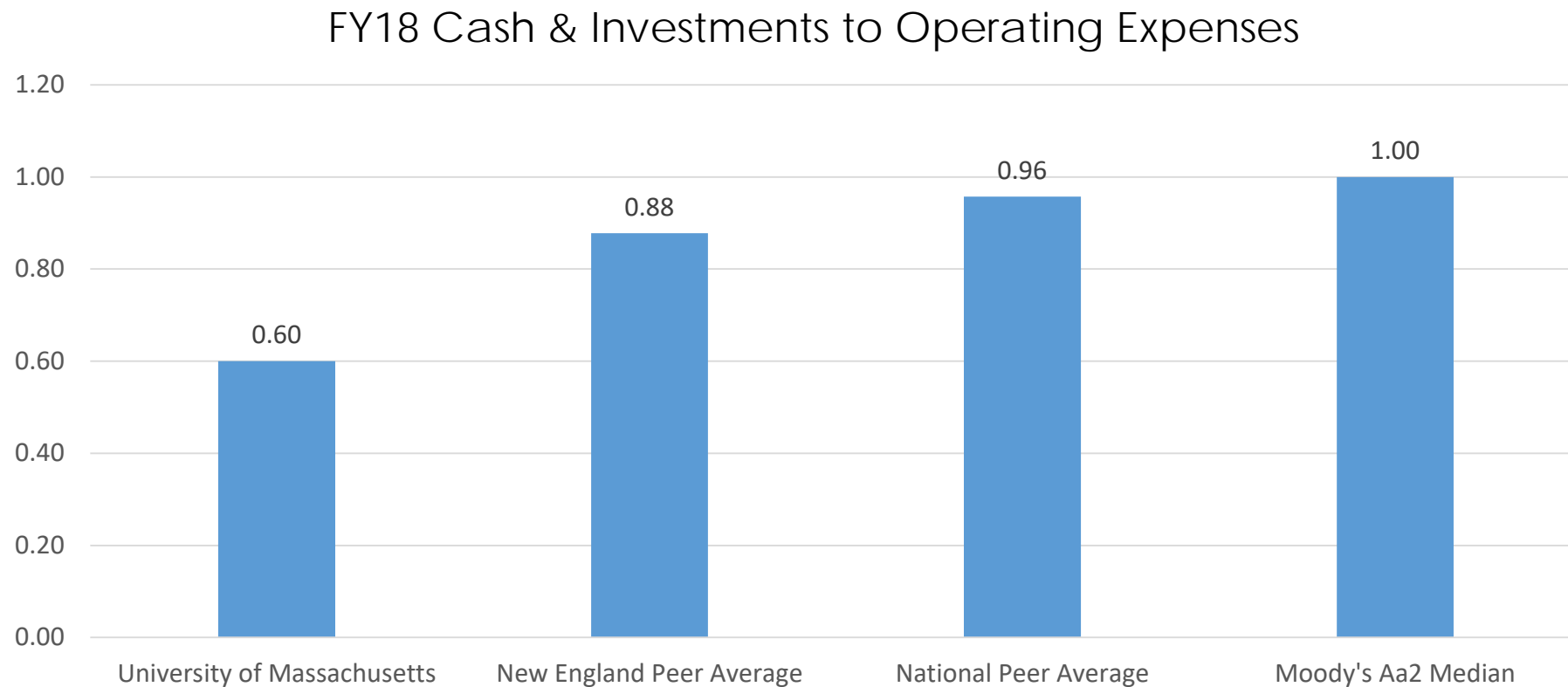
Financial Leverage Ratio – Measures the ability to repay bondholders from wealth that can be accessed over time or for a specific purpose

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

Peer Analysis

Financial Reserves Low Compared to Industry Peers

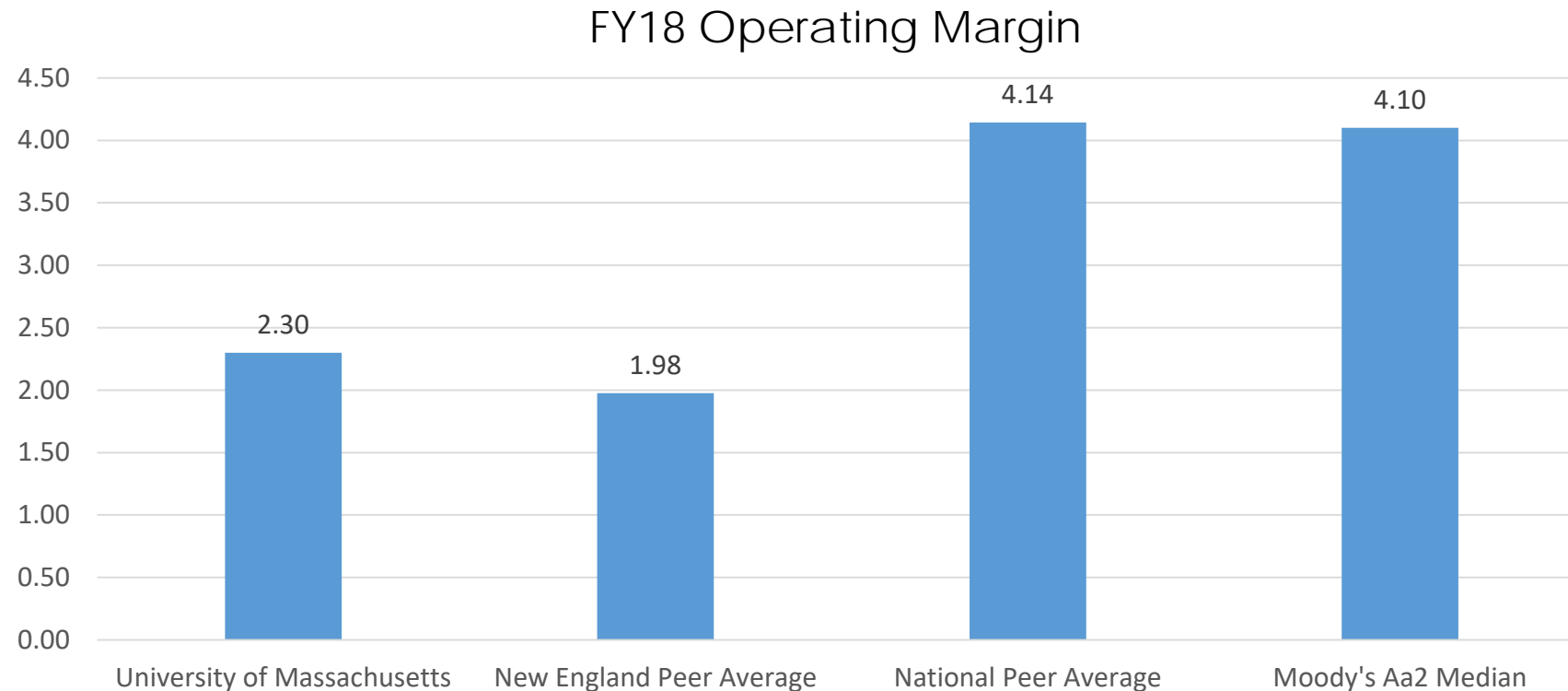
- Moody's Investors Service notes in its last rating report dated December 18, 2019 that the University has financial reserve levels that are "below peer levels when compared to both debt and operations."



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

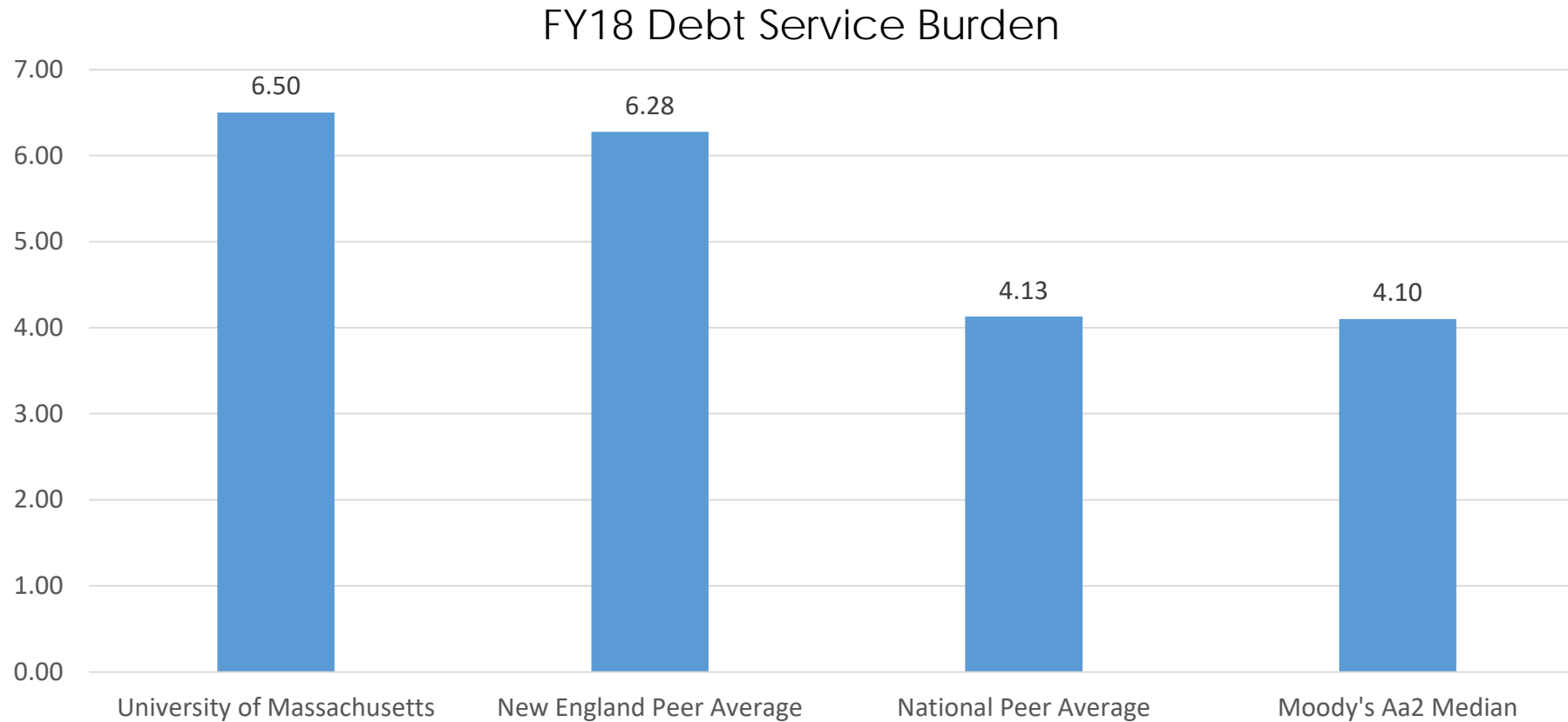
- In spite of weak financial reserves, Moody's notes strength of management for operating performance noting "improved multi-campus fiscal oversight and multi-year planning for financial stability has fostered steady and strengthened operating cash flow and solid debt service coverage" further noting "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 December 18, 2019 report that the University's "high debt burden and extensive capital needs" along with the FY2020 debt issuance 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

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#7. UMass Better Together



University of Massachusetts

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



Better Together

What is it?

Projects designed to improve our customer service, empower staff team members and establish UMass as a higher education leader in operational efficiency

When do we do it?

Ongoing continuous improvement

What is included?

- ✓ Shared Services Plan (UPST)
- ✓ Annual E&E Report
- ✓ Efficiency Projects:
 - ✓ Position Management
 - ✓ Employee FTE Report
 - ✓ MMARS Transaction Centralization

Why do we do it?

- ✓ To ensure that both taxpayer and student dollars are used in the most efficient and effective manner
- ✓ To ensure fiscal responsibility
- ✓ To drive efficiencies and improve quality everywhere for our students.

Key Links:

- ✓ [Better Together](#)

We Are Better Together



UMass Efficiency & Effectiveness Initiative

The University understands that, along with fiscal responsibility, we must demonstrate that we are driving efficiencies and improving quality everywhere for our students

- The UMass Efficiency & Effectiveness initiative was launched in 2012 charged with ensuring that both taxpayer and student dollars are used in the most efficient and effective manner.
- The E&E Initiative involves stakeholders from all campuses, creating new University-wide collaborations that save money and improve services.
- Collaboration has led to new University-wide initiatives:
 - **Better Together Initiative:** The We Are Better Together initiative includes a number of projects designed to improve our customer service, empower staff team members and establish UMass as a higher education leader in operational efficiency.
 - **Shared Services:** Alternative service delivery models, such as shared services, present opportunities to build on the foundation and bring significant benefits to all campuses

Cost Savings and Reductions

UMass projects \$124 million in cost savings from efficiency and effectiveness efforts.

- Actual spending was reduced by \$22.3 million – cost avoidance totaled \$102.3 million
- Allows for re-investment into student programs and services that help improve academic quality
- The University's goal is to accelerate the pace of cost reduction achieved through re-alignment of the organization and enhanced operational efficiencies



\$124 million
in cost savings

Note: Savings include cost reduction and cost avoidance from FY12 - FY24.

Cost Savings Methodology

Cost Savings = Cost Reduction and Cost Avoidance

In order to ensure that cost savings are being appropriately estimated, the University has created two categories by which costs savings are evaluated.

Cost Reduction represents the amount of actual savings due to the implementation of an initiative usually within the first year of the project.

Costs Avoided represent the amount of costs avoided due to the implementation of an initiative usually over a period of fiscal years of costs were averted that would otherwise have been spent.

Summary of E&E Efforts

Since 2012, UMass has initiated 145 projects with projected savings over \$124 million by 2024.

(\$ in Thousands)	# Projects	Cost Reductions	Cost Avoidance	Total Savings
Energy & Sustainability*	33	\$12,975	\$51,617	\$64,592
Purchasing Initiatives	26	\$6,507	\$26,411	\$32,918
IT Initiatives	72	\$2,834	\$17,339	\$20,172
Facilities	10	\$0	\$6,200	\$6,200
Library	4	\$0	\$823	\$823
Total	145	\$22,316	\$102,390	\$124,705

Note: Total savings includes some contracts that have expiration dates extending through 2024 (projected savings).

*The energy solar/net metering contracts have expiration dates ranging from 2034-2039 that add an additional \$27.3 million in cost avoidance which is not included in totals above.

Efficiency & Effectiveness Achievements

UMass' recognition as a leader in organizational efficiency efforts is increasing.

- The UMass system has become the largest public off taker of solar net metering projects in the state, supporting the development of solar projects in Massachusetts
- UMass received a Models of Efficiency Award from University Business Journal for the Mobile Device Management Project which consolidated accounts and pooled minutes at a System level, resulting in approximately \$500,000 in annual cost savings
- UMass received a Governor's Citation as Quasi-Public Organization of the year for outstanding participation in the Commonwealth's Supplier Diversity Program
- UMass has received two Davis Foundations grants to support the work of the Better Together Initiative and Shared Services implementation

Procurement Cost Savings

Leveraging the University's purchasing power is projected to save nearly \$33 million by 2024.

Examples of Recent Projects & Savings

\$32.9 million
Total Projected
Savings

\$19.7 million
Total Saved since 2011

\$13.2 million
Projected savings
FY19 – FY24

(\$ in Thousands)			
Project	FY17	FY18	Total
Office Supplies	1,200	1,200	2,400
Lab Supplies re-bid	1,000	1,000	2,000
Copier/Printer Maintenance	800	800	1,600
Elevator maintenance	572	572	1,144
Athletics Advertising	300	300	600
Travel Services	125	142	267
Executive search services	90	90	180
Waste stream management	130	-	130
Campus Audits phone & cable	-	111	111
Dorm Mattress Bid	30	30	60
AP Audit-Spendmend	-	14	14
IT staff augmentation	5	5	10
Total	4,252	4,264	8,516

Energy Cost Savings

Initiatives to save costs in energy and sustainability will have saved UMass nearly \$64.6 million by 2024.

\$64.6 million
Total Projected
Savings

\$12.9 million
Total Saved since 2011

\$51.6 million
Projected savings
FY19 – FY24

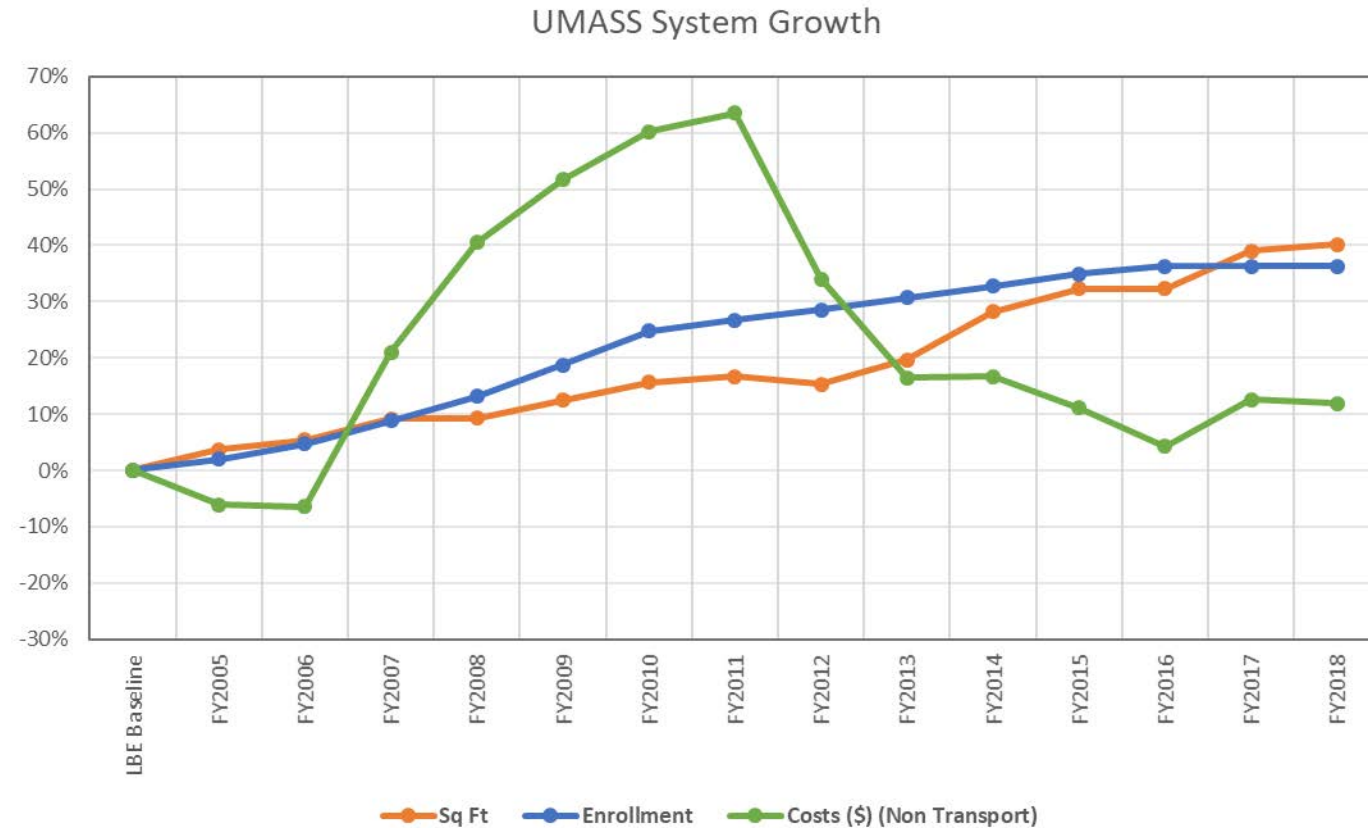
Examples of Recent Projects & Savings

(\$ in Thousands)			
Project	FY17	FY18	Total
Solar/Net Metering Contract	2,655	3,035	5,690
Electricity Bid	759	459	1,218
Total	3,414	3,494	6,908

Note: The energy solar/net metering contracts have expiration dates ranging from 2034-2039 that add an additional \$27.3 million in cost avoidance which is not included in totals above.

Energy Efficiency

Despite growth in enrollment and square footage, energy supply costs have declined.

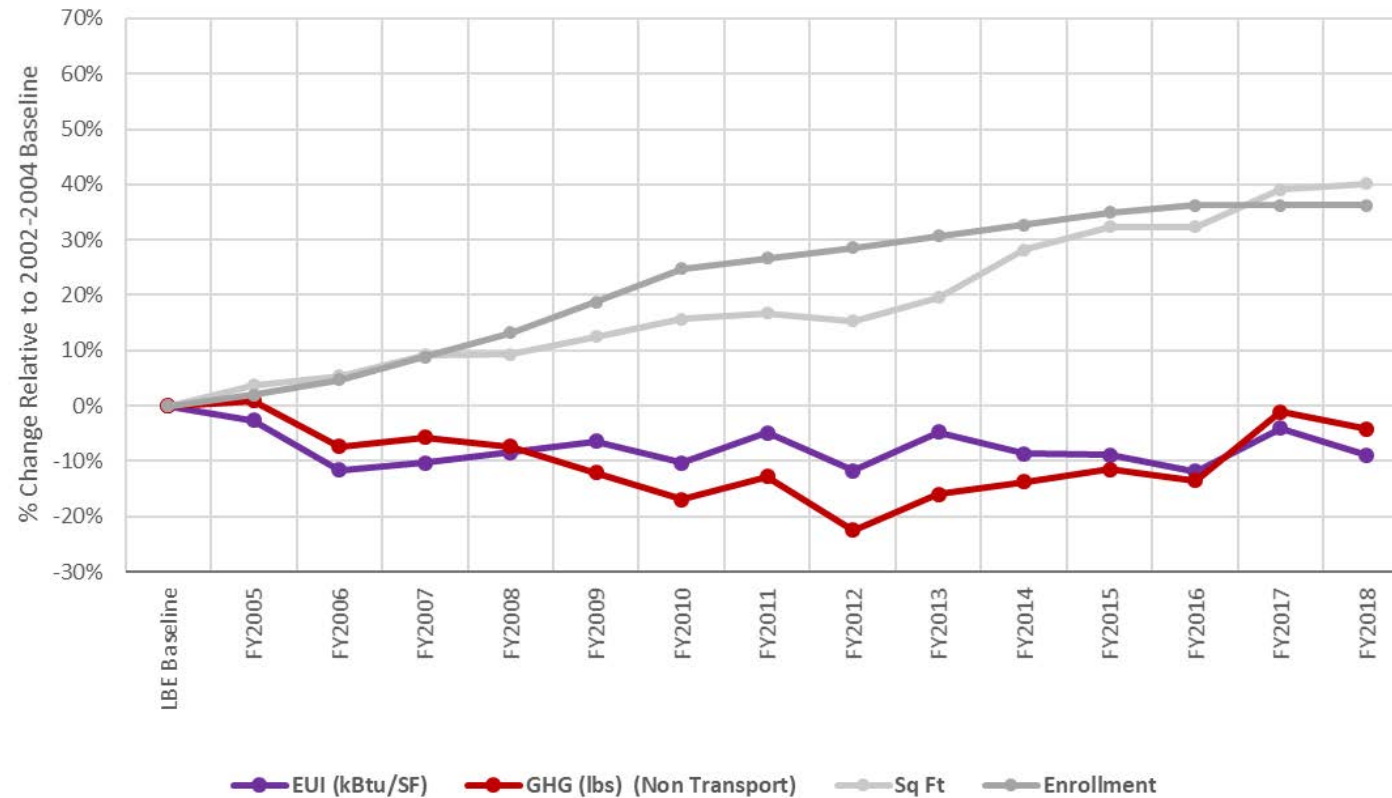


Note: Leading By Example baseline 2002-2004 indicates when the Commonwealth implemented Executive Order 484 requiring state-owned facilities to report energy usage and carbon output to the Department of Energy Resources. Baseline will be used in all of the energy metrics incorporated in this report.

Energy Efficiency

Despite growth in enrollment and square footage, energy use (EUI) and related carbon emissions (GHG) have remained level.

Energy Use and Growth Have Decoupled



IT-Related Cost Savings

Initiatives to save IT-related costs will have saved UMass over \$20 million by 2024.

Examples of Recent Projects & Savings

\$20.2 million
Total Projected
Savings

\$18.4 million
Total Saved since 2011

\$1.7 million
Projected savings
FY19 – FY24

(\$ in Thousands)			
Project	FY17	FY18	Total
VM Ware	305	400	705
Mobile Device Management	-	480	480
Dashboard development-multiple	196	-	196
Document Imaging Program	188	-	188
Immigration Dashboard	80	95	175
IT Reseller RFP	128	-	128
Employment Verification	60	55	115
Echo 360 Contract Re-negotiation	50	50	100
Qualtrics - Survey Tool	30	40	70
Math Works (Math Lab) Renewal	-	43	43
IBM (SPSS) Renewal	-	10	10
Total	2,703	1,876	4,579

UMass Shared Services: Unified Procurement Services Team

Shared Services: Savings Opportunity Overview

- Shared services will triple the rate at which we have achieved savings through our E&E effort to date
 - Shared services projected saving over 18 months = \$16.5M
 - E&E savings achieved over last 7 years = \$22.3M (does not include cost avoided over that period)

This will help the University:

- Maintain access and affordability for students
- Enhance quality of educational experience by optimizing resources devoted to teaching, research, and the overall student experience
- Further demonstrate UMass is operating efficiently and effectively
- Invest in strategic priorities of the campuses

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

- Objectives
 - Evolve A&F organization to provide 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

- Shared Services planning project should build on momentum of past initiatives:
 - 2011 Procure-to-Pay Study
 - Business Process Review (BPR)
 - Efficiency & Effectiveness Taskforce (E&E)

- Delivery of comprehensive plan by January 2019*
 - Refresh 2011 study on Procure-to-Pay and perform initial assessment of payroll
 - Collaborate with campus leadership, faculty, and staff
 - Focus on accounts payable, procurement, and payroll





* Originally December 2018 but extension granted to allow for more analysis on Procurement

Shared Services: Key Recommendations

- Establish a Unified Procurement Services Team responsible for system-wide procurement and accounts payable led by a Chief Procurement Officer (CPO)
- Provide services to all campuses through the Unified Procurement Services Team
- Establish a governance structure to ensure strong campus customer relationships
- Measure and report results against agreed-upon Service Level Agreements (SLAs) and Key Performance Indicators (KPIs)
- Continue to analyze payroll and time and labor to develop a future service delivery model

Unified Procurement Services Team: Goals and Objectives

Key Objectives

-  Provide responsive, consistent, high quality customer service
-  Reduce costs through efficiency and strategic sourcing/category management
-  Provide staff with development opportunities
-  Maintain strong campus relationships

“Better, faster, cheaper”

Process Enhancements (BETTER)

Stickier Partnerships with Strategic Providers

Ease of Administration (FASTER)

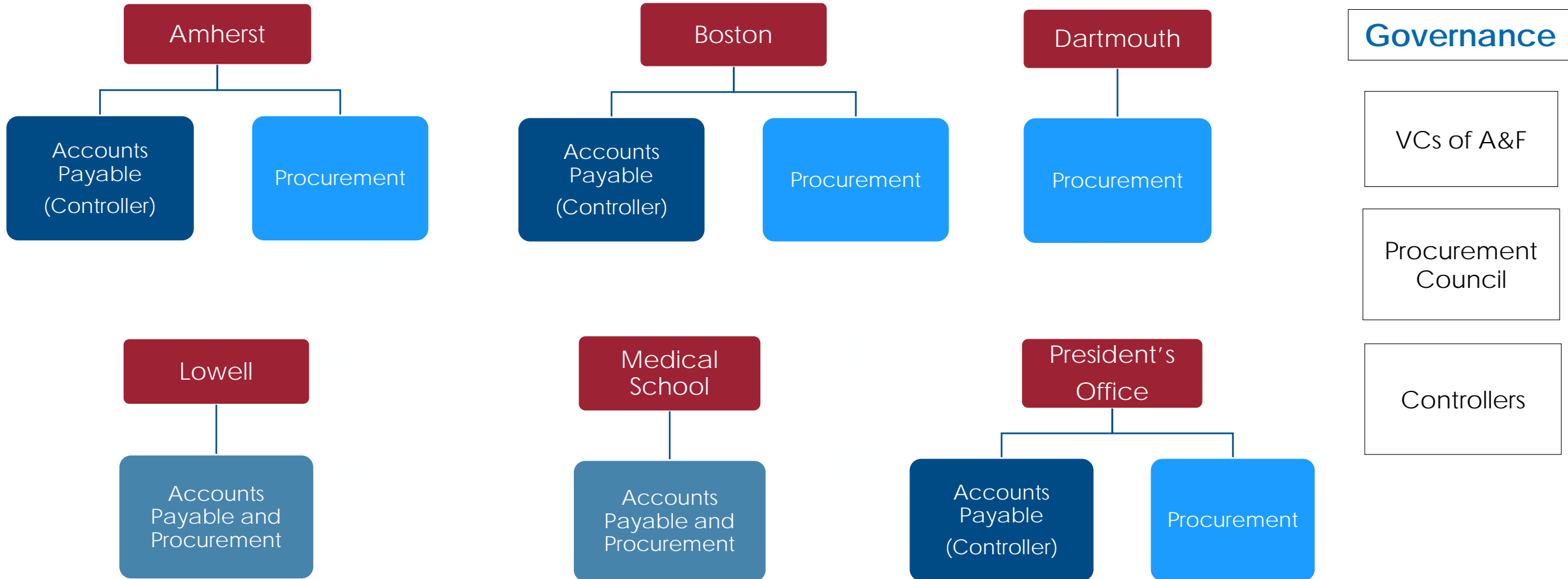
Continue Capturing Tactical Benefits

Cost Discipline (CHEAPER)

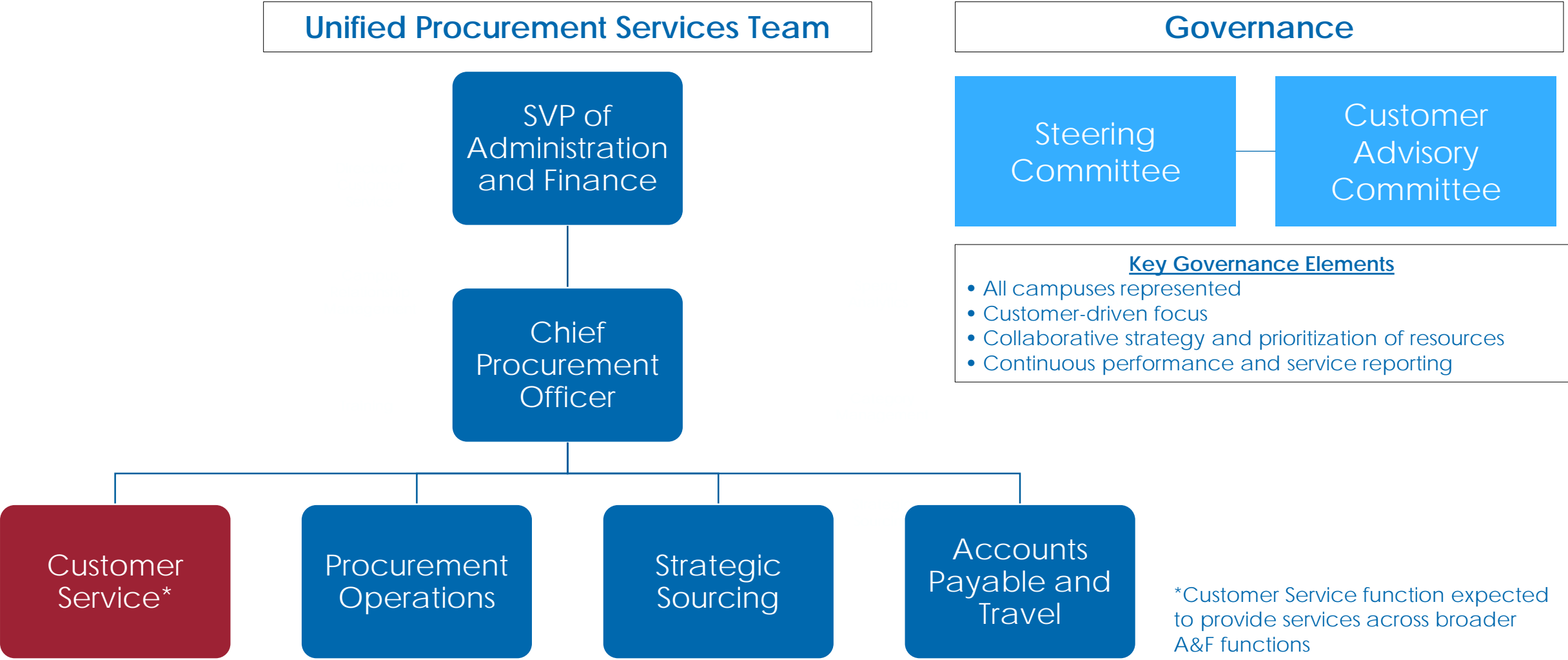
Harvest the Low Hanging Fruit

Procure to Pay Structure Before Shared Services

- 6 separate campus procurement and AP functions
- 3 campuses with procurement and AP separate, 2 combined (Dartmouth AP managed by President's Office)



Procure to Pay Structure **After** Shared Services:



*Customer Service function expected to provide services across broader A&F functions

Unified Procurement Services Team: Implementation Timeline and Scope



\$1.2B in total annual spend



17,000+ active suppliers



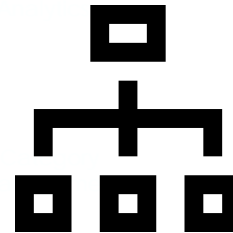
190,000 purchase orders



40,000 travel authorizations



50 FTEs/24 positions



3 divisions



\$16.5 million (12-18 months savings)

Unified Procurement Services Team: Roadmap

FY 20

Transition and Foundation

- Competency Development
- Baseline Technologies
- Reporting & Visibility
- Vendor Master Files; Spend Data
- Fundamental Customer Service Sourcing & Procurement Operations Capabilities

UPST Capabilities Development

FY 21

Stabilization and Evolution

- Repeatable Processes
- Data Driven Optimization
- Integrated Procurement Solutions
- Consistent, Measurable Service Savings Delivery

Customer Service, Process Operation & Strategic Sourcing Framework

- Tactical Foundational Activities
- Basic Uniform Systems P2P Processes & Workflows
- Basic Transaction Enablement
- Spend Visibility; Opportunistic Cost Benefits

- Spend Category Planning
- Optimized Strategic Sourcing & Payment Standard Operating Procedures (SOPs)
- UPST Performance Measurement
- Data Driven Fiscal Discipline; Proactive Cost Management Initiatives

UMass Shared Services: Ongoing Efforts

Treasury, Insurance & Operations

- The University Office of Treasury, Insurance & Operations is a centralized function that provides treasury and insurance services to the University system.
- The office provides banking services, cash management and tax guidance to all five campuses.
- Treasury is responsible for the reconciliation of all University cash and actively manages the University's short-term investments.
- The office maintains all banking, credit card and insurance relationships.
- Treasury processes the disbursements for all University payments to vendors and students.
- As a shared service, Treasury is in a position to create and take advantage of efficiencies and provide cost effective financial solutions for the University system.
 - The slides that follow titled, "Banking Services RFP", serve as a recent example of the type of efficiencies and savings that Treasury, as a centralized service, can achieve.

Banking Services Procurement

Resulted in annual savings of approximately \$300,000, with a cumulative 5-year savings of approximately \$1.5M.

- In 2019, the University completed a comprehensive review and evaluation of the system's banking services.
- Based on the review, a centrally-managed procurement comprised of four Requests for Proposals (RFPs), and ten different financial service groups, was developed and issued by the system office.
 - Comprehensive Banking Services
 - Purchase Card and Disbursements Services
 - Prepaid & Payroll Card Services
 - Armored Car Services (including Smart Safes)

Massachusetts Green High Performance Computing Center (MGHPCC)

Massachusetts Green High Performance Computing Center (MGHPCC)



- MGHPCC provides state of the art infrastructure for computationally intensive research that is indispensable in data-rich environments.
- MGHPCC operates as a joint venture between the University of Massachusetts, Boston University, Harvard University, the Massachusetts Institute of Technology, and Northeastern University.
- MGHPCC Facility:
 - 90,300 square feet
 - 10 Megawatt capacity & expandable
 - 8.6 acres in Holyoke canal district
 - \$95M facility (not counting computing) – delivered on time and under budget.



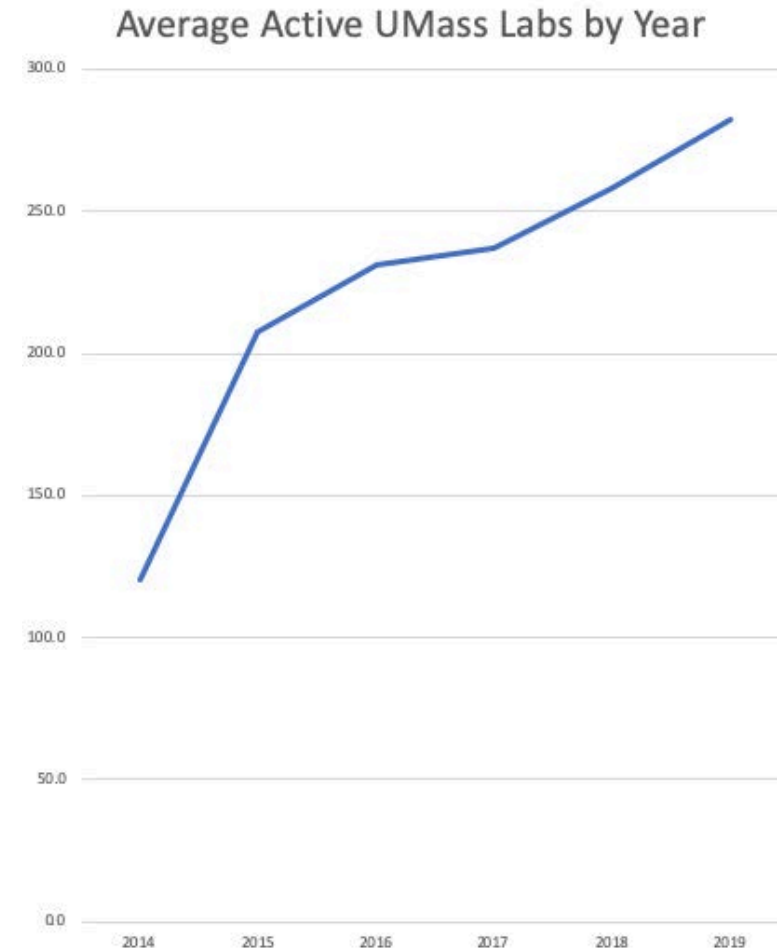
Northeastern
University

Commitment to Research Excellence

- The MGHPCC contributes significantly to research at UMass.
- In FY19 total sponsored research awards held by MGHPCC faculty users across five UMass campuses reached \$177M.
- That is, 38% of total sponsored research awards across UMass are being enabled in some way by our membership of the MGHPCC.
- Since its inception, UMass usage of the MGHPCC has grown to over 1,600 researchers and over 500 labs.

Impact of MGHPCC for UMass

- Nine UMass co-located clusters and six external collaborations provide specialized high performance resources
- **1,614** unique researchers
- **528** total labs since establishment
- Number of average active labs in a given year has increased rapidly to over **275**
- over **75.7M** jobs run since January 2014



MGHPCC Outperforms Amazon Web Services

Operation costs of \$2.44M annually are much less expensive than equivalent architecture using cloud services, such as Amazon Web Services, which would cost over \$8M per year.

<p>MGHPCC Shared CPU & GPU Clusters</p> <ul style="list-style-type: none"> - 4,000 Intel cores - 10,000 AMD cores - 120 K80 GPUs - 9 V100 GPUs 	<p>FY2018 MGHPCC Operating Costs (including Facilities Costs) (excluding Co-Location Costs)</p> <p>\$2.44M annually</p>
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Amazon Web Services equivalent of MGHPCC Shared CPU & GPU Clusters

Description	Quantity	Type	GPU	GPU Memory (GB)	vCPU	Memory (GB)	Network	Total vCPU	Utilization	Monthly Cost
Intel Comparison	128	r4.8xlarge	N/A	N/A	32	244	10 Gigabit	4096	60%	\$128k
AMD Comparison	156	r4.16xlarge	N/A	N/A	64	488	20 Gigabit	9984	60%	\$301k
GPU 1 Comparison	4	p2.8xlarge	8	192	32	488	20 Gigabit	128	60%	\$13k
GPU 2 Comparison	2	p3.16xlarge	8	128	64	488	25 Gigabit	128	60%	\$10k
Storage (EBS)	1.5 Petabyte									\$150k
Data Egress	10% total storage									\$15k
Staff										\$55k
									Monthly Total	\$672k

General assumption of 1 physical core = 1 vCPU

\$8.06M annually

UMass Network Consolidation

The UMass Network Today

Networking at UMass is a success story... and a great foundation.

- UMassNet is a statewide high capacity digital communications network for sharing data between the UMass campuses, the 2 UMass primary data centers, and the Massachusetts Green High Performance Computing Center (MGHPCC). It also provides internet service and connection to Internet2 (i2).
- The wide area network was provided by a combination of resources in the central University IT Services organization (UITS) and UMass Amherst IT.
- 5 UITS staff are dedicated to the operation of the Wide Area Network today. Historically, UMass Amherst has maintained an integrated network team with responsibilities ranging from wide-area network connectivity all the way through end-user-facing building-level network jacks and wireless service.
- As an R1 Research University campus UMass Amherst has developed strong relationships with the Academic community and consortiums (Northern Crossroads, NEREN, OSHEAN, USNH WAN etc.) that drive efficiency.
- In addition to providing services to UMass, over the past 15+ years UITS has been an Internet Service Provider (ISP) to 9 community colleges and libraries (referred to as the MITI Network), and UMass Amherst has been an ISP to the Five College Consortium of 5 colleges.

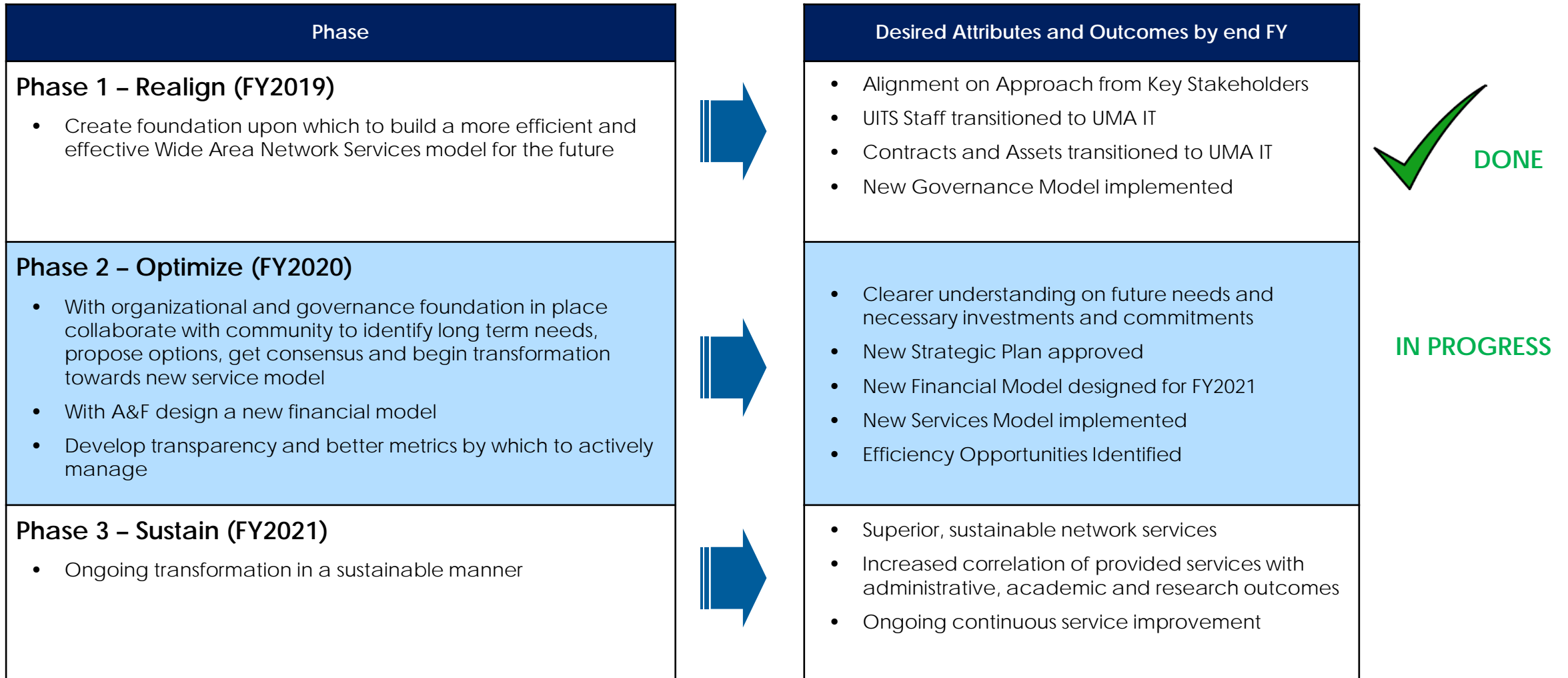
UMass Network: Vision

To bring together the talents currently within UMass Amherst Information Technology and the President's Office (UITs) to design and implement the next generation wide-area-network to support the University of Massachusetts' mission and drive efficiency and effectiveness.

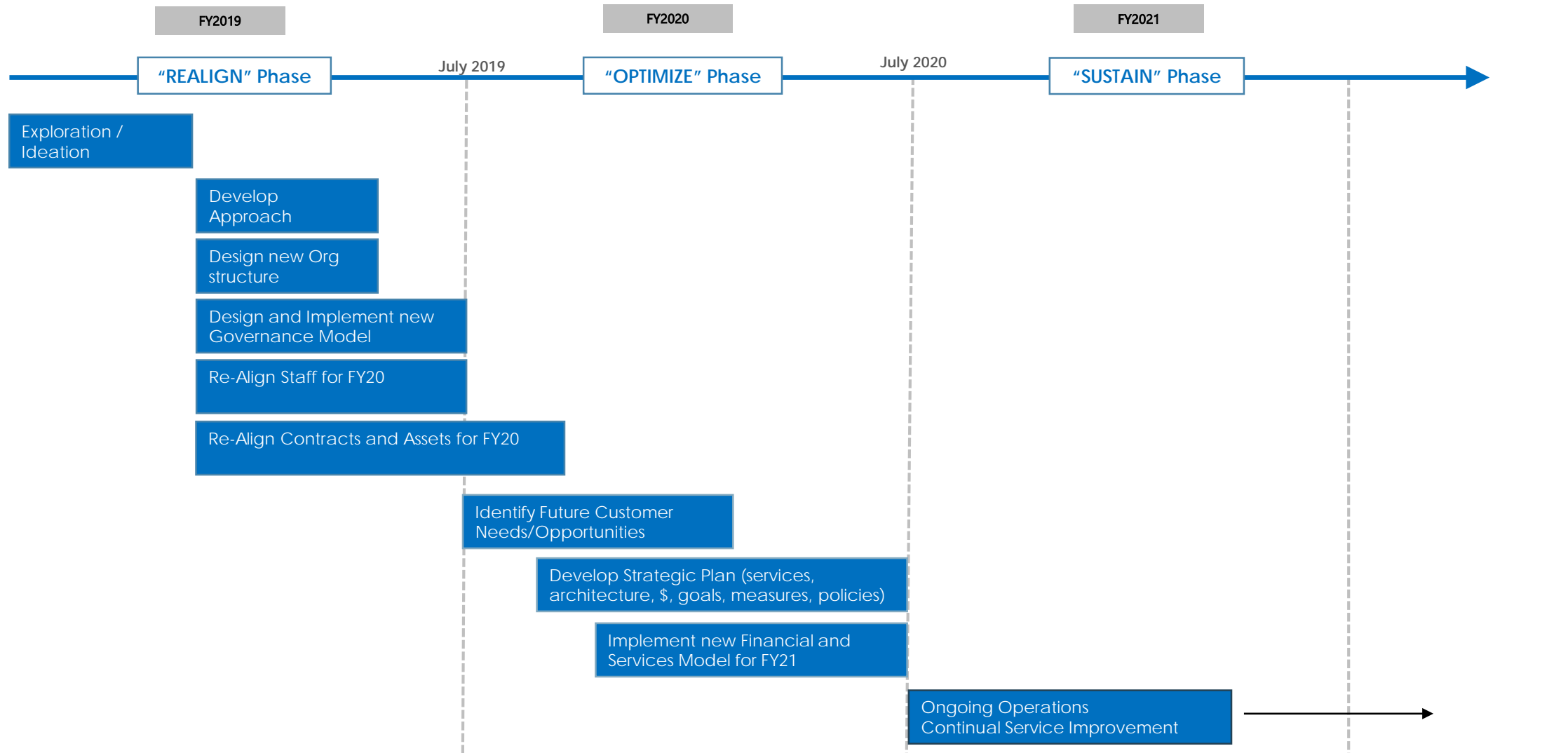


- Optimize available staff resources by **eliminating duplication of effort** and create a nimble new organization structure, geographically distributed as appropriate, under the executive leadership of the Flagship's CIO.
- Implement a **new governance steering committee** chaired by the University CIO that has representation from all campuses as well as from key academic, research and administrative stakeholders.
- Provide highly efficient network operations based on **standardized best-in-class processes, tools and metrics**.
- Develop processes to **manage expenditures and revenues more effectively** whilst meeting the increasing internal and external customer demands for capacity, performance, resilience and functionality.
- Publish **transparent financial reporting** and implement effective customer service level management.
- Demonstrate a continued commitment to our employees through high quality **training** and workforce development programs for IT staff in the new organization.
- **Generate revenues** for expanded external client base longer term to offset increased costs over time

UMass Network: Phases



UMass Network: Timeline



UMass Network Consolidated

- With a new consolidated organization structure we are working to identify opportunities to eliminate redundancies and introduce efficiencies – all whilst meeting the increased network needs of the university.
- For FY21 we are planning to develop a new financial model through the new Governance process that most effectively utilizes the available funds
 - Develop rates that are based on 'actual' usage rather than 'forecast' usage
 - Develop a standard rate structure for all customers
 - Integrate cost for providing Amherst's contribution to networking services
 - Identify and implement planned efficiencies (e.g. reduction in number of ISPs, consolidating contracts) will be realized

Campus Efficiency and Effectiveness

Examples of E&E Cost Savings

Hundreds of individual initiatives, some large, some small at all five UMass campuses help drive efficiency in everything we do.

- UMass Amherst eliminated the need for a 0.5 FTE staff position by directing staff to bring their recyclables to several central collection points instead of paying cleaning crews to empty bins from each office.
- UMass Boston is saving \$50,000 per year in electrical and maintenance costs through the deployment of 14 newer, high-efficiency elevators.
- UMass Dartmouth and the UMass Medical School teamed up to save \$500,000 when Dartmouth reused wireless networking made surplus by a network upgrade at the Worcester campus in order to build out Dartmouth's campus Wi-Fi.

Examples of E&E Cost Savings

- UMass Lowell is saving \$351,100 annually on transportation costs by partnering with the Lowell Regional Transit Authority (LRTA) to provide students with \$1 door-to-door rides from the Conference Center dormitories to campus during off hours instead of operating UML shuttles ... and by training UML shuttle drivers to earn Commercial Drivers' Licenses so they can replace two vans with one bus, with no reduction in frequency of service for students and staff.
- Consolidating all campus Elsevier ScienceDirect electronic journal subscriptions to one account is saving UMass more than \$100,000 annually.

Employees Go Above and Beyond for E&E

UMass employees are committed to efficiency and effectiveness. Below are just some examples.

- **Amherst:** When a new faculty member arrived at UMass and needed to move \$2 million in DARPA funding with them, College of Information and Computer Sciences grant administrators went above and beyond to ensure the funds successfully made it to UMass, spending an entire Sunday creating a budget and submitting the proposal.
- **Lowell:** Since 2015, the Accelerated Energy Project Team has worked to upgrade over 6,000 pieces of mechanical equipment and lighting in 30 buildings for an estimated annual savings of \$700,000 in electricity, over \$600,000 in natural gas, and \$20,000 in water usage. The team provided technical evaluations of design alternatives and assisted with troubleshooting in the tie-ins with existing buildings. Their artful coordination with the campus community to minimize impacts during installation and commissioning of the new equipment assured added success.

Employees Go Above and Beyond for E&E

UMass employees are committed to efficiency and effectiveness. Below are just some examples.

- **Medical School:** During a major electrical systems project, a maintenance manager was recognized for his efforts to research how service was distributed throughout the system, as some electrical prints had become outdated. Without the employee's long hours and dedication to the project, impacts including higher costs and longer down times could have resulted. The project was completed on time and with limited interruptions to the school and hospital as a result of employee efforts.
- **Boston:** A professor in the School for the Environment has a historical track record of both efficiency and effectiveness. Receiving 18 federal grants amounting \$5.7 million, producing 167 peer-reviewed journal articles, serving as the primary advisor to 14 PhD students, and being cited over 19,000 times in academic literature, this professor is the embodiment of efficiency and effectiveness in academia.

#8. Academic Quality



University of Massachusetts

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A World-Class Public University

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

4

Tier-One National Universities

All four undergraduate campuses
are ranked nationally



#1

Public University in
New England



A World-Class Education

UMass is recognized as a national leader in academic excellence.

#33

▲ from #37 in 2015

Most Innovative
University in the
United States



#24

▲ from #52 in 2010

Among Public
Universities in the
United States

University of
Massachusetts
Amherst

#34

▲ from #40 in 2005

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



UMass Graduates Earn Strong Starting Salaries

Graduates from every UMass campus make a higher starting salaries than at least 60% of all other MA colleges and universities.

Amherst

\$57,400

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

The median early career
salary...

Lowell

\$58,800

Higher than **74%** of all other
MA schools

Boston

\$53,200

Higher than **63%** of all other
MA schools

Dartmouth

\$53,400

Higher than **65%** of all other
MA schools

Source: Payscale.com 2019 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 Academy of 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 alumna and adjunct professor Erin Keaney is the co-founder and COO of Nonspec, which makes affordable and adjustable prosthetic limbs for amputees around the world.
- A group of UMass Amherst researchers were on the international team that captured the first direct visual evidence of a supermassive black hole and its shadow.
- 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 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 professor Robert Giles' Submillimeter Wave Technology Laboratory brings in \$5 million per year, and his biomedical imaging research has gone on to help cancer patients.
- 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.

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.

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#9. Campus Multi-year Review and Financial Forecast Data

The data in this section comes from the University's five-year financial forecast presented earlier in this presentation (see tab 5).

It was developed from August to October of 2019 and presented to the Board of Trustees on December 5, 2019.



University of Massachusetts

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Amherst

About UMass Amherst

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



Amherst: Revenue & Expenses

(\$ in Thousands)

AMHERST

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Gross Tuition & Fees	440,723	481,072	513,450	541,665	562,859	578,480	589,596	614,842	641,666	671,657	699,029	726,295	18.1%	4.3%
Tuition Discounts	(99,261)	(114,881)	(139,441)	(150,824)	(151,628)	(161,062)	(164,630)	(171,782)	(179,025)	(186,232)	(193,639)	(200,714)	16.8%	4.0%
Discount Rate	22.5%	23.9%	27.2%	27.8%	26.9%	27.8%	27.9%	27.9%	27.9%	27.7%	27.7%	27.6%	-1.1%	0.0%
Net Tuition & Fees	341,462	366,191	374,009	390,841	411,231	417,418	424,966	443,061	462,641	485,425	505,390	525,582	18.6%	4.4%
Grants	137,136	145,217	148,554	153,007	163,645	161,034	169,243	174,316	179,542	184,925	190,469	196,179	12.5%	3.0%
Sales & Service, Educational	8,908	8,935	9,137	9,321	10,795	10,092	11,120	11,456	11,802	12,158	12,525	12,903	12.6%	3.0%
Auxiliary Enterprises	223,784	241,428	256,110	268,041	279,545	287,155	294,702	309,054	322,297	333,002	343,405	354,038	14.6%	3.5%
Other Operating	19,010	22,413	16,575	16,768	16,439	20,900	17,639	18,339	19,039	19,739	20,439	21,139	15.3%	3.6%
State appropriations	298,423	319,541	345,411	360,161	371,781	387,302	383,589	397,560	411,886	426,595	441,389	456,527	14.8%	3.5%
Other NonOperating	53,891	70,716	66,258	78,504	87,616	75,105	81,426	83,866	86,637	90,002	93,539	96,797	15.4%	3.7%
Total Revenues	1,082,614	1,174,441	1,216,054	1,276,643	1,341,052	1,359,006	1,382,685	1,437,651	1,493,843	1,551,845	1,607,156	1,663,164	15.7%	3.7%
% Growth	0.1%	8.5%	3.5%	5.0%	5.0%	1.3%	3.1%	5.8%	3.9%	3.9%	3.6%	3.5%		
Expenses	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Salaries & Fringe	621,583	676,474	712,315	744,102	780,545	807,327	814,046	848,766	878,432	910,301	943,552	975,921	15.0%	3.6%
Non-personnel	295,012	308,850	306,743	326,076	341,923	347,939	358,372	360,847	376,435	396,921	414,942	423,127	17.3%	4.1%
Scholarships and fellowships	20,215	14,452	17,378	18,216	16,581	19,907	20,348	21,255	22,175	23,052	23,953	24,807	16.7%	3.9%
Depreciation	89,442	96,614	100,409	109,965	117,086	120,638	121,502	127,206	131,300	134,355	139,112	142,319	11.9%	2.8%
Interest	29,820	32,417	36,250	43,131	40,706	45,047	43,547	51,108	52,544	50,851	49,063	59,711	16.8%	4.4%
Total Expenses	1,056,072	1,128,807	1,173,095	1,241,490	1,296,841	1,340,857	1,357,814	1,409,183	1,460,887	1,515,480	1,570,622	1,625,886	15.4%	3.6%
% Growth	4.5%	6.9%	3.9%	5.8%	4.5%	3.4%	4.7%	5.1%	3.7%	3.7%	3.6%	3.5%		
Operating Margin	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
UMass OM Calc Revenues	1,086,696	1,176,957	1,209,147	1,274,604	1,333,206	1,353,748	1,378,046	1,433,596	1,490,399	1,548,038	1,602,969	1,658,449	15.7%	3.7%
Total Expenses	1,056,072	1,128,807	1,173,095	1,241,490	1,296,841	1,340,857	1,357,814	1,409,183	1,460,887	1,515,480	1,570,622	1,625,886	15.4%	3.6%
Surplus / (Deficit)	30,624	48,150	36,052	33,114	36,365	12,892	20,232	24,413	29,512	32,558	32,347	32,563	33.4%	7.8%
UMass OM Calc	2.8%	4.1%	3.0%	2.6%	2.7%	1.0%	1.5%	1.7%	2.0%	2.1%	2.0%	2.0%		

Amherst Undergraduate Enrollment


As of Fall 2019, undergrad enrollment at Amherst stands at 24.2K, with gains of 3% and 6% over Fall 2018 and Fall 2015, respectively.

AMHERST UNDERGRADUATE ENROLLMENT: FALL 2019



24.2K

HEADCOUNT



3.0%

Δ VS FALL 2018



6.4%

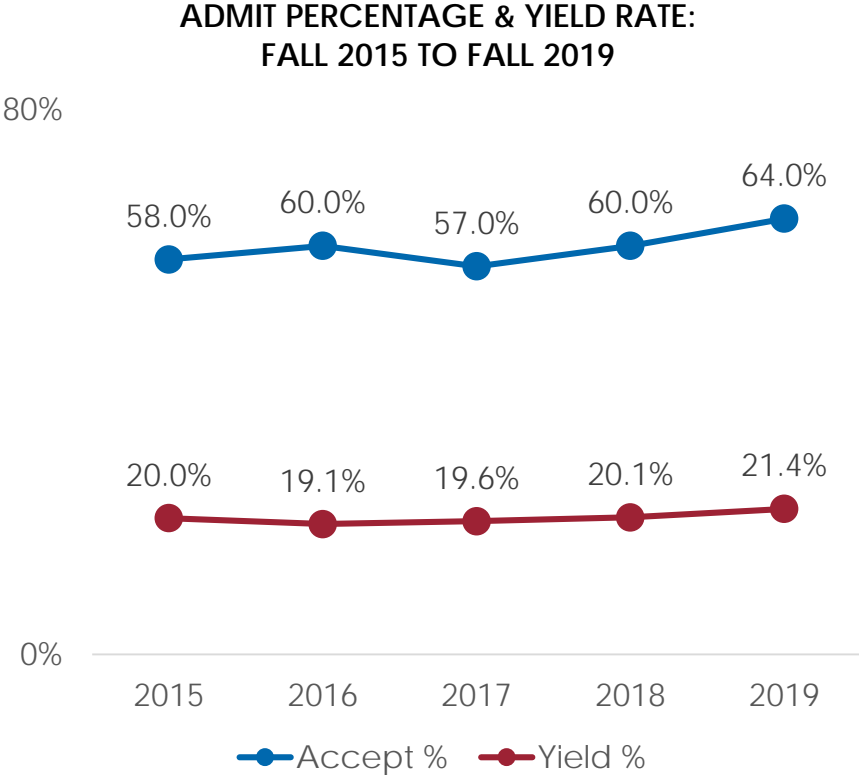
Δ VS FALL 2015

Amherst Undergraduate Admissions

Amherst continues to grow in all phases of its admissions funnel; while admits rates have climbed, so has yield. The academic quality of the incoming enrolling class remains high.

AMHERST UNDERGRADUATE ADMISSIONS: FIRST-YEAR STUDENTS

FUNNEL	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
APPLICANTS	42.1K	▲ 1.1%	▲ 5.2%
ADMITS	26.8K	▲ 7.7%	▲ 15.1%
ENROLLS	5.7K	▲ 14.4%	▲ 23.0%
ENROLLS	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
AVG SAT	1292	▼ 4	▲ 24*
AVG HS GPA	3.90	● 0	▲ 0.07



*SAT scores are from 2017 after test was revised in 2016.

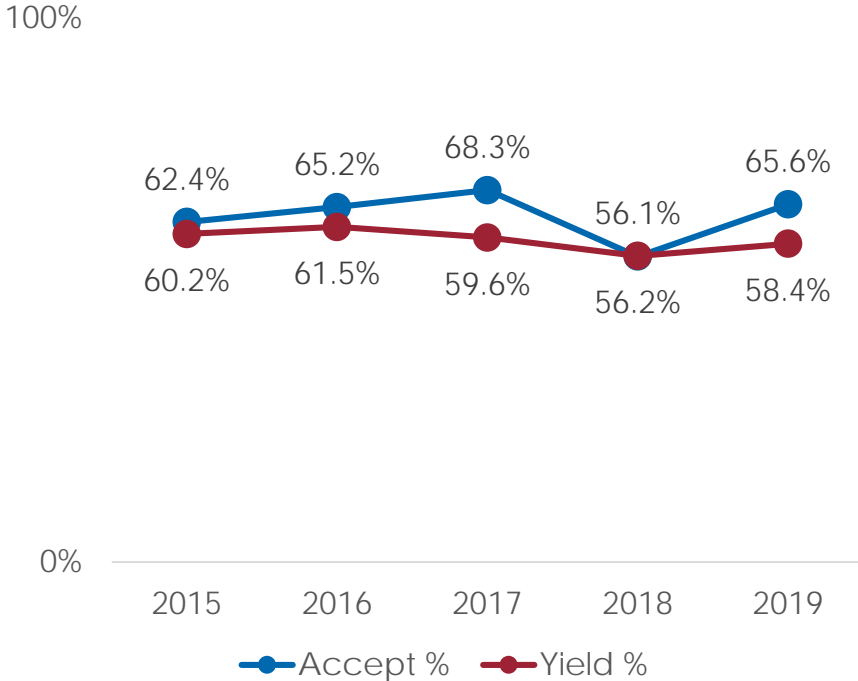
Amherst Transfer Enrollment

At Amherst, the transfer student funnel shows stability vs. 2015; despite 1-year drop in applications, new enrollment remains stable.

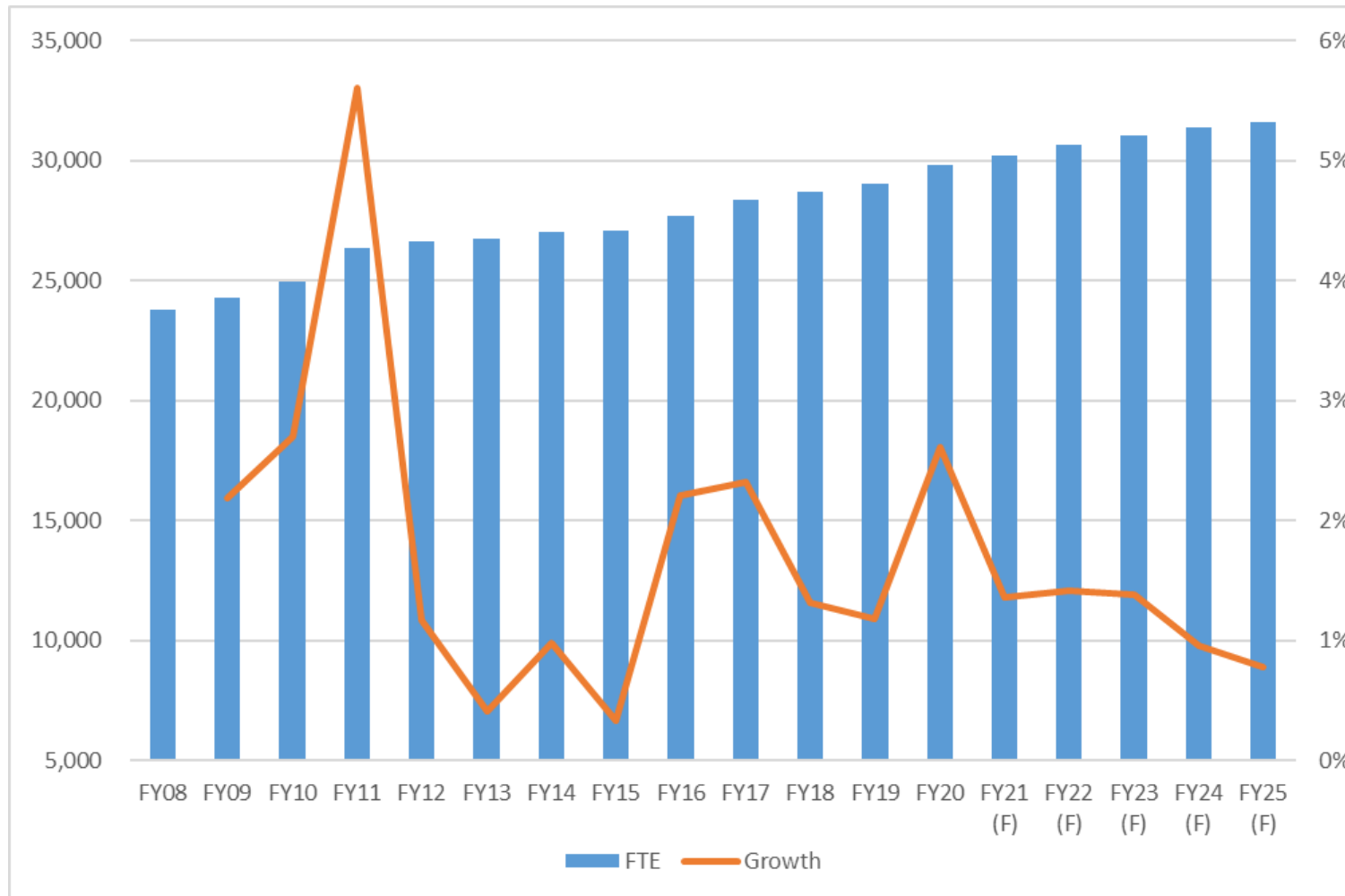
AMHERST UNDERGRADUATE ADMISSIONS: TRANSFER STUDENTS

FUNNEL	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
APPLICANTS	3.7K	▼ 17.3%	▼ 0.2%
ADMITS	2.4K	▼ 3.2%	▼ 4.8%
ENROLLS	1.4K	▲ 0.6%	▲ 1.8%

ADMIT PERCENTAGE & YIELD RATE:
FALL 2015 TO FALL 2019

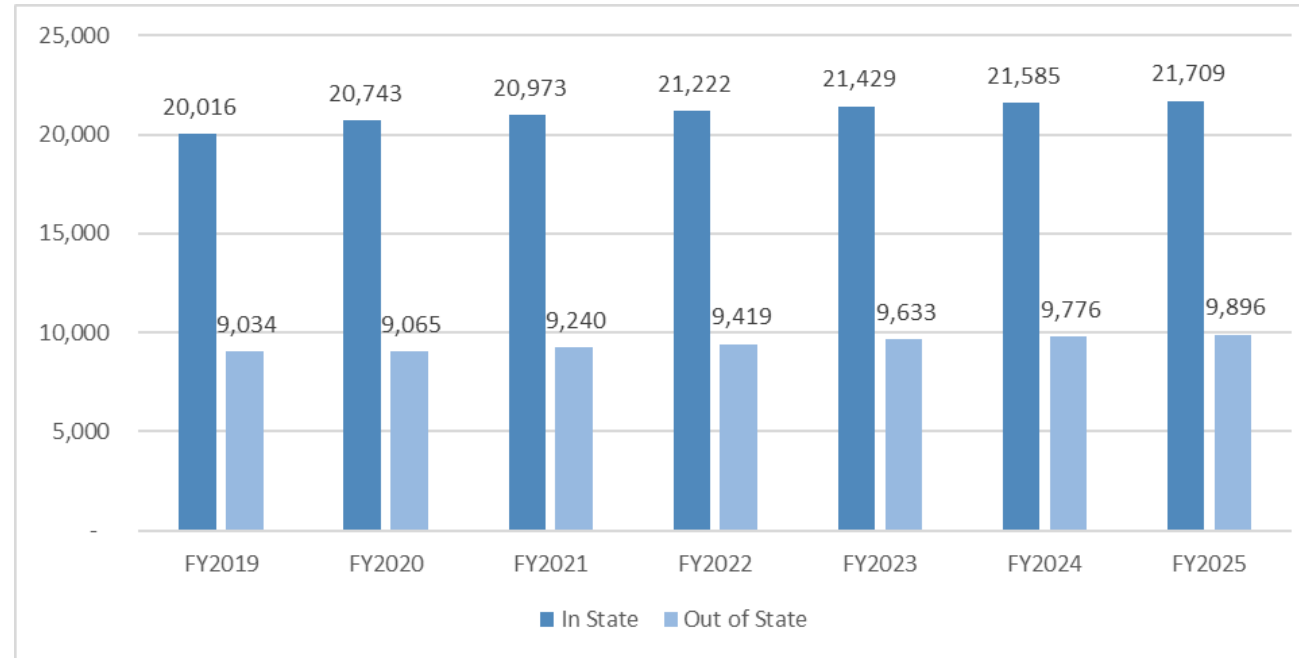


Amherst: Enrollment Trend



Source: Actuals from student profile.

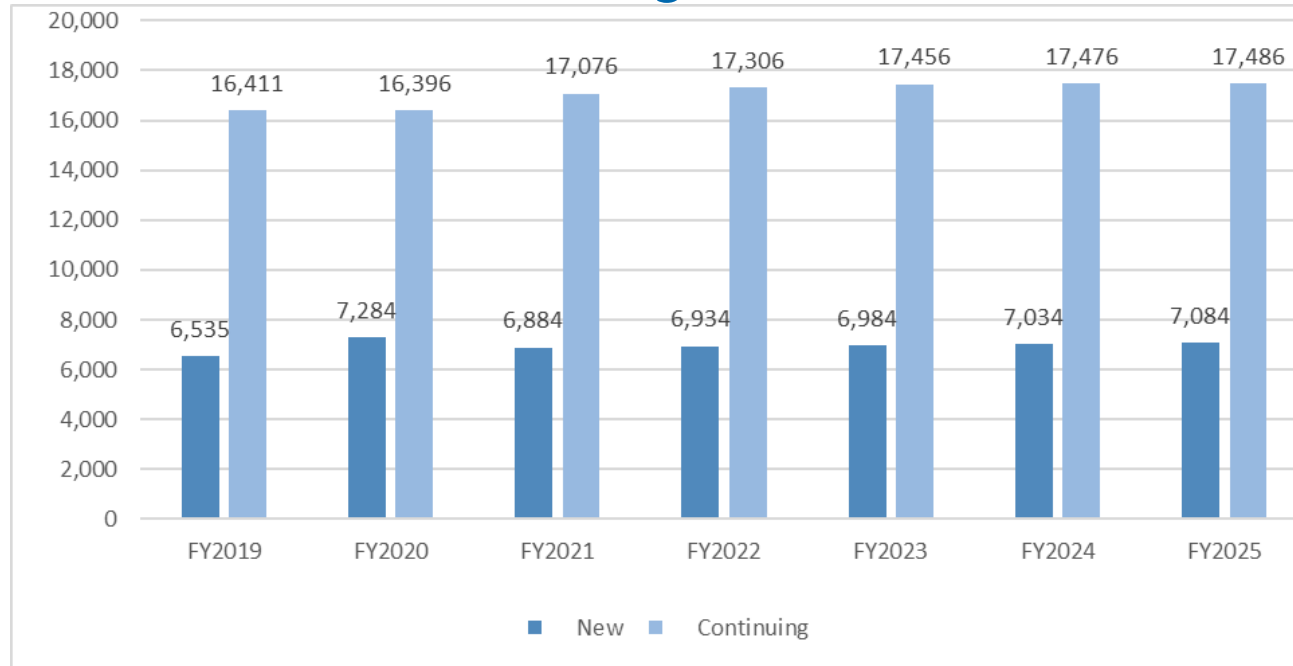
Amherst: Enrollment by Residency



Amherst Students (FTEs)	Actual		Forecast				
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
In State	20,016	20,743	20,973	21,222	21,429	21,585	21,709
% Change	1.0%	3.6%	1.1%	1.2%	1.0%	0.7%	0.6%
Out of State	9,034	9,065	9,240	9,419	9,633	9,776	9,896
% Change	1.7%	0.3%	1.9%	1.9%	2.3%	1.5%	1.2%
Total	29,051	29,808	30,213	30,641	31,063	31,361	31,605
% Change	1.2%	2.6%	1.4%	1.4%	1.4%	1.0%	0.8%

Source: Actuals from student profile.

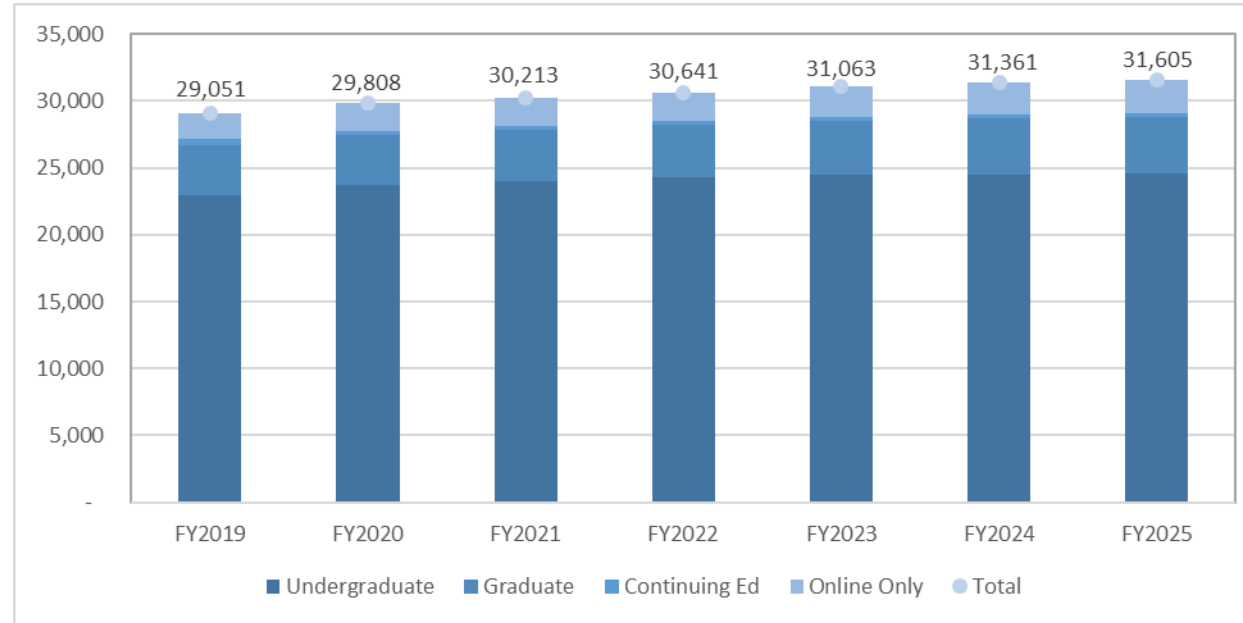
Amherst: Enrollment by New v Continuing



Amherst Undergraduate (FTEs)	Actual		Forecast				
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
New	6,535	7,284	6,884	6,934	6,984	7,034	7,084
% Change	5.7%	11.5%	-5.5%	0.7%	0.7%	0.7%	0.7%
Continuing	16,411	16,396	17,076	17,306	17,456	17,476	17,486
% Change	-0.3%	-0.1%	4.1%	1.3%	0.9%	0.1%	0.1%
Undergraduate Total	22,945	23,680	23,960	24,240	24,440	24,510	24,570
% Change	1.3%	3.2%	1.2%	1.2%	0.8%	0.3%	0.2%

Source: Actuals from student profile.

Amherst: Enrollment by Career



Amherst Students (FTEs)	Actual		Forecast				
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Undergraduate	22,945	23,680	23,960	24,240	24,440	24,510	24,570
% Change	1.3%	3.2%	1.2%	1.2%	0.8%	0.3%	0.2%
Graduate	3,772	3,736	3,861	3,961	4,061	4,161	4,211
% Change	1.7%	-0.9%	3.3%	2.6%	2.5%	2.5%	1.2%
Continuing Ed	417	313	313	313	313	313	313
Online Only	1,917	2,079	2,079	2,127	2,249	2,377	2,511
% Change	-1.1%	2.5%	0.0%	2.0%	5.0%	5.0%	5.0%
Total	29,051	29,808	30,213	30,641	31,063	31,361	31,605
% Change	1.2%	2.6%	1.4%	1.4%	1.4%	1.0%	0.8%

Source: Actuals from student profile.

Amherst: Staffing

Employee FTEs	AMHERST									
	Actual			Budget Actual		Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Restricted										
Faculty	64	49	44	50	42	42	42	42	42	42
Staff	317	374	396	375	382	382	382	382	382	382
Total Restricted	381	423	440	425	424	424	424	424	424	424
<i>FTE Change (#)</i>		42	17	(15)	(16)	(1)	-	-	-	-
Unrestricted General University Ops										
Faculty	1,486	1,509	1,508	1,578	1,620	1,643	1,660	1,688	1,720	1,744
Staff	2,611	2,692	2,773	2,742	2,762	2,778	2,784	2,793	2,801	2,803
Total General University Ops	4,097	4,201	4,281	4,320	4,382	4,421	4,444	4,481	4,521	4,547
<i>FTE Change (#)</i>		104	80	39	101	101	23	37	40	26
Unrestricted Aux./Independent Business										
Faculty	-	-	-	-	-	-	-	-	-	-
Staff	1,016	1,051	1,254	1,427	1,517	1,518	1,519	1,520	1,521	1,521
Total Aux./Independent Business	1,016	1,051	1,254	1,427	1,517	1,518	1,519	1,520	1,521	1,521
<i>FTE Change (#)</i>		35	203	173	263	91	1	1	1	-
Total Faculty & Staff	5,494	5,675	5,975	6,172	6,323	6,363	6,387	6,425	6,466	6,492
		3.3%	5.3%	3.3%	5.8%	3.1%	0.4%	0.6%	0.6%	0.4%

Amherst: Staffing Ratios

AMHERST

	Actual			Budget	Actual		Forecast			
	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
<i>Student - Faculty</i>										
Student (FTE)	28,339	28,711	29,051	29,326	29,808	30,213	30,641	31,063	31,361	31,605
Faculty (FTE)	1,550	1,558	1,552	1,628	1,662	1,685	1,702	1,730	1,762	1,786
Student-Faculty Ratio	18.3	18.4	18.7	18.0	17.9	17.9	18.0	18.0	17.8	17.7
<i>Staff - Faculty (All)</i>										
Staff (FTE)	3,944	4,117	4,423	4,544	4,661	4,678	4,685	4,695	4,704	4,706
Faculty (FTE)	1,550	1,558	1,552	1,628	1,662	1,685	1,702	1,730	1,762	1,786
Staff-Faculty Ratio	2.5	2.6	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.6
<i>Staff - Faculty (E&G)</i>										
Staff (FTE)	2,611	2,692	2,773	2,742	2,762	2,778	2,784	2,793	2,801	2,803
Faculty (FTE)	1,486	1,509	1,508	1,578	1,620	1,643	1,660	1,688	1,720	1,744
Staff-Faculty Ratio (E&G)	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.6	1.6

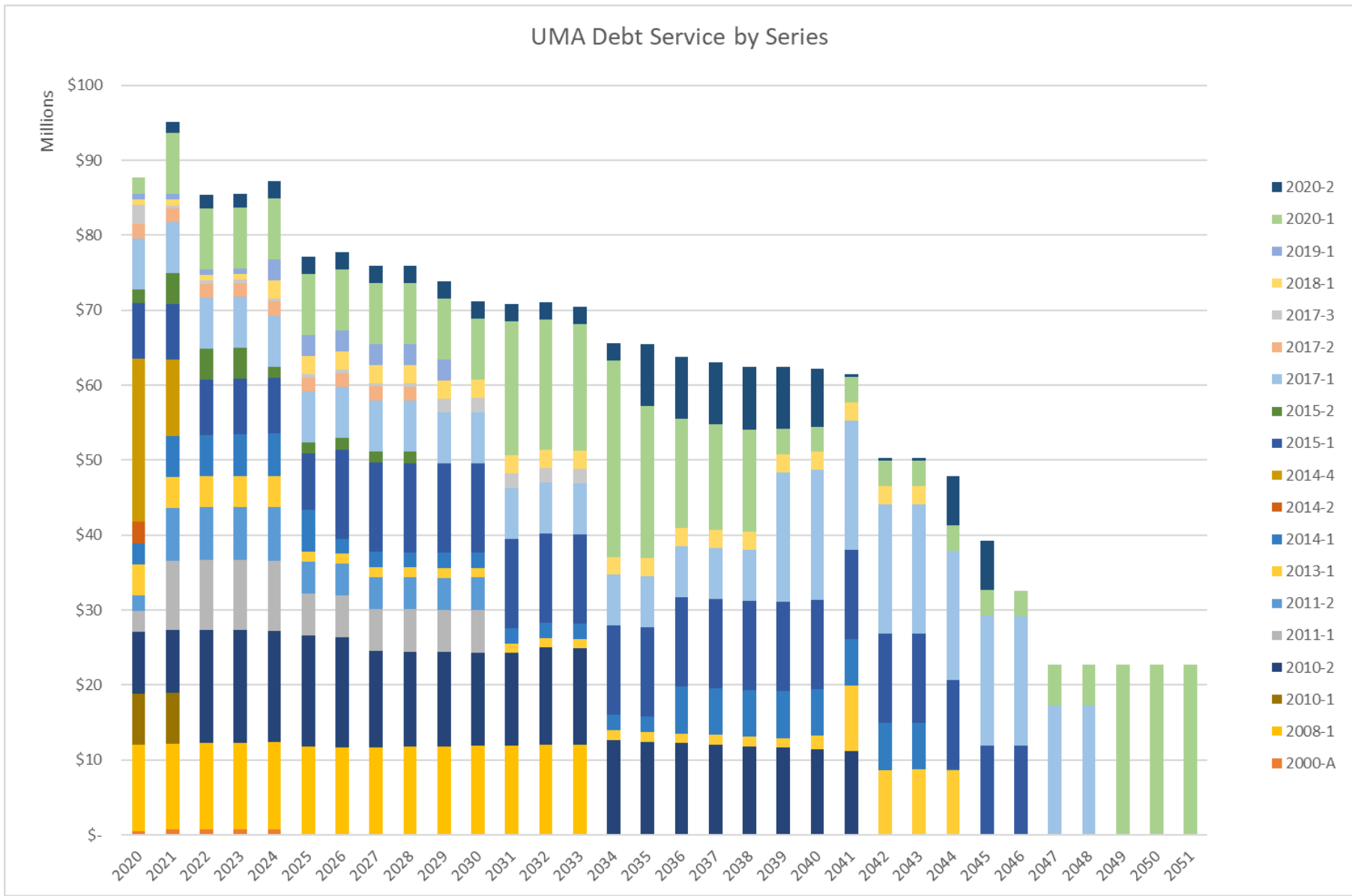
Amherst: Key Ratios

Key Ratio	AMHERST										
	Actual					Budget	Forecast				
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Operating Margin (%)	2.8%	4.1%	3.0%	2.6%	2.7%	1.0%	1.7%	2.0%	2.1%	2.0%	2.0%
Operating Margin (\$)	30,624	48,150	36,052	33,114	36,365	12,892	24,413	29,512	32,558	32,347	32,563
Operating Cash Flow Margin (%)	14.6%	15.6%	14.8%	14.8%	14.6%	13.8%	14.3%	14.5%	14.3%	14.1%	14.5%
Operating Cash Flow Margin (\$)	156,493	181,720	176,745	186,268	192,282	185,511	202,630	213,251	218,244	222,423	237,067
Debt Service Burden (%)	6.4%	6.4%	6.6%	6.8%	6.5%	6.8%	7.2%	6.5%	6.3%	6.3%	6.5%
Debt Service Coverage (x)	2.3	2.5	2.3	2.2	2.3	2.0	2.0	2.2	2.3	2.3	2.3
Financial Leverage (x)	0.48	0.50	0.50	0.54	0.54	0.38	0.53	0.57	0.62	0.54	0.58
Total Debt (\$ in thousands)	977,301	939,847	1,048,407	1,044,216	1,089,240	1,440,183	1,174,093	1,131,633	1,087,434	1,287,691	1,241,984
Spendable Cash & Investments to Op Expenses (x)	0.46	0.42	0.46	0.46	0.46	0.41	0.45	0.45	0.45	0.45	0.45
Enrollment	27,098	27,697	28,339	28,711	29,051	29,808	30,213	30,641	31,063	31,361	31,605
Enrollment (% Change)		2.2%	2.3%	1.3%	1.2%	2.6%	1.4%	1.4%	1.4%	1.0%	0.8%

Includes new borrowing in FY21 & FY24, total debt does not include P3 financing in FY21-FY25 pending decision on deal structure

FY15 – FY19 Capital Review: Amherst Projects

Campus	Project	Adjusted Cost	Phase
Amherst	Facility Demolitions	\$11,200,000	9A - Construction Complete
Amherst	ISOM architectural and MEP	\$2,000,000	9A - Construction Complete
Amherst	Lederle Graduate Research basic systems upgrades	\$10,305,000	9B - Financially Complete
Amherst	McGuirk Training Facility and Pressbox	\$36,800,000	9A - Construction Complete
Amherst	Morrill complex repairs and renovations	\$9,081,000	9A - Construction Complete
Amherst	Paige Lab Renovations	\$9,900,000	9B - Financially Complete
Amherst	University Drive Infrastructure	\$8,000,000	9A - Construction Complete
Amherst	Academic Classroom Building	\$93,250,000	9A - Construction Complete
Amherst	Central Campus Infrastructure	\$25,000,000	9A - Construction Complete
Amherst	Fine Arts Center fire protection and emergency generator	\$6,000,000	9B - Financially Complete
Amherst	Housing Repair & Renovation	\$25,000,000	9B - Financially Complete
Amherst	Lederle Graduate Research Center Window encapsulation/replacement	\$3,500,000	9B - Financially Complete
Amherst	New Substation and Electrical Upgrades	\$21,200,000	9A - Construction Complete
Amherst	Design Building	\$52,000,000	9A - Construction Complete
Amherst	Morrill Science Center Renovations	\$2,972,890	9A - Construction Complete
Amherst	Old Chapel Renovations	\$17,800,000	9A - Construction Complete
Amherst	Physical Plant deferred maintenance & renovations	\$5,812,706	9B - Financially Complete
Amherst	South College Academic Facility	\$63,632,734	9A - Construction Complete
Amherst	Champions Center	\$29,900,000	9B - Financially Complete
Amherst	DuBois Writing Program & Image Library	\$6,998,000	9A - Construction Complete
Amherst	Hampshire DC renovations	\$15,500,000	9B - Financially Complete
Amherst	Life Science Laboratories, OIT data center fitout	\$8,167,225	9A - Construction Complete
Amherst	Lincoln Campus Center Concourse Improvements, Phase II	\$19,512,972	9B - Financially Complete
Amherst	Marks Meadow/Furcolo Renovations	\$22,987,522	9B - Financially Complete
Amherst	MLSC Life Sciences Facility	\$95,000,000	9A - Construction Complete
Amherst	New Faculty Hire Renovations	\$14,000,000	9A - Construction Complete
Amherst	DuBois Library Electrical, Plumbing, Fire Suppression, Deferred Maintenance	\$25,000,000	9B - Financially Complete
Amherst	Expand and Upgrade Central Chilled Water Plants	\$27,580,832	9A - Construction Complete
Amherst	Isenberg Management School Expansion	\$63,900,000	9A - Construction Complete
	Total	\$732,000,881	



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

(\$ in Thousands)

BOSTON

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Gross Tuition & Fees	213,968	232,355	240,235	243,760	245,734	247,982	249,051	254,086	259,768	265,599	271,585	277,729	9.3%	2.2%
Tuition Discounts	(44,311)	(45,471)	(53,820)	(57,790)	(64,836)	(65,926)	(66,612)	(71,089)	(76,200)	(77,966)	(79,784)	(81,658)	14.9%	3.4%
<i>Discount Rate</i>	20.7%	19.6%	22.4%	23.7%	26.4%	26.6%	26.7%	28.0%	29.3%	29.4%	29.4%	29.4%	5.1%	1.2%
Net Tuition & Fees	169,657	186,884	186,415	185,970	180,898	182,056	182,438	182,997	183,567	187,634	191,801	196,071	7.1%	1.7%
Grants	48,561	53,927	58,201	56,212	53,536	56,211	56,211	56,211	56,211	56,211	56,211	56,211	0.0%	0.0%
Sales & Service, Educational	4,197	3,709	3,979	4,072	4,312	3,962	4,312	4,312	4,312	4,312	4,312	4,312	0.0%	0.0%
Auxiliary Enterprises	9,211	5,965	6,167	5,199	12,315	13,621	14,107	14,781	15,008	15,237	15,378	15,512	4.9%	1.2%
Other Operating	854	2,837	1,818	1,758	2,218	3,101	2,743	2,743	4,687	4,687	4,687	4,687	70.9%	10.4%
State appropriations	110,295	117,987	130,157	135,605	140,659	144,708	145,190	150,425	155,628	160,949	166,417	172,009	14.3%	3.3%
Other NonOperating	33,347	35,093	36,597	37,773	42,529	38,863	40,646	39,882	41,641	41,793	41,967	41,986	5.3%	1.3%
Total Revenues	376,122	406,402	423,334	426,589	436,467	442,523	445,647	451,352	461,054	470,823	480,771	490,787	8.7%	2.1%
% Growth	3.9%	8.1%	4.2%	0.8%	2.3%	1.4%	2.1%	2.0%	2.1%	2.1%	2.1%	2.1%		
Expenses	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Salaries & Fringe	244,755	266,100	275,330	269,465	269,723	268,359	272,711	273,615	279,620	283,720	291,285	299,991	9.6%	2.3%
Non-personnel	95,721	101,713	98,250	98,972	98,428	101,938	101,053	99,591	99,071	100,192	101,354	102,384	2.8%	0.7%
Scholarships and fellowships	12,254	16,047	16,161	17,180	17,983	17,180	17,983	17,983	17,983	17,983	17,983	17,983	0.0%	0.0%
Depreciation	16,572	18,988	22,246	24,433	28,010	33,578	33,238	35,029	38,081	40,696	42,231	42,705	21.9%	4.8%
Interest	8,133	9,064	12,476	14,152	16,823	21,468	20,662	20,620	19,379	18,815	18,303	17,908	-13.2%	-3.6%
Total Expenses	377,435	411,912	424,463	424,202	430,967	442,523	445,647	446,838	454,134	461,406	471,156	480,972	7.6%	1.8%
% Growth	8.6%	9.1%	3.0%	-0.1%	1.6%	2.7%	3.4%	1.0%	1.6%	1.6%	2.1%	2.1%		
Operating Margin	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
UMass OM Calc Revenues	379,257	406,543	421,462	426,589	434,863	442,523	445,647	451,352	461,054	470,823	480,771	490,787	8.7%	2.1%
Total Expenses	377,435	411,912	424,463	424,202	430,967	442,523	445,647	446,838	454,134	461,406	471,156	480,972	7.6%	1.8%
Surplus / (Deficit)	1,822	(5,369)	(3,001)	2,387	3,896	0	0	4,514	6,919	9,416	9,615	9,816	117.5%	16.3%
UMass OM Calc	0.5%	-1.3%	-0.7%	0.6%	0.9%	0.0%	0.0%	1.0%	1.5%	2.0%	2.0%	2.0%		

Boston Undergraduate Enrollment

As of Fall 2019, undergrad enrollment at Boston totals 12.6K, a slight drop versus Fall 2018 and Fall 2015 (1% and 3% respectively).

BOSTON UNDERGRADUATE ENROLLMENT: FALL 2019



12.6K

HEADCOUNT



▼ 0.9%

Δ VS FALL 2018



▼ 2.7%

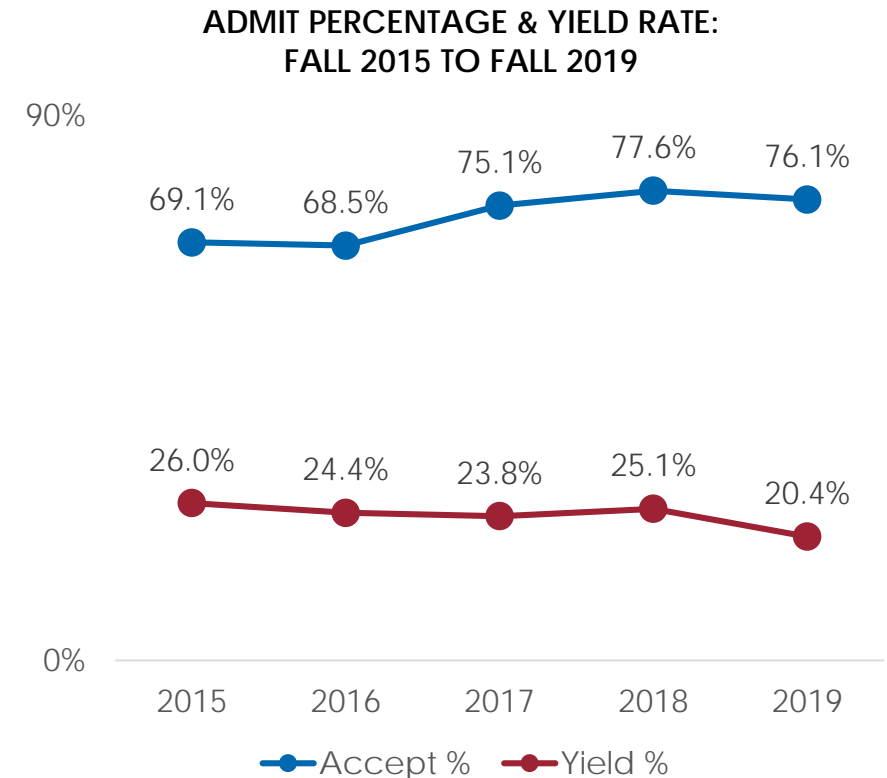
Δ VS FALL 2015

Boston Undergraduate Admissions

Boston reports a decrease in enrollment due to a sharp decline in yield vs. 2018; this may be partly in due to the increased academic quality of the incoming class.

BOSTON UNDERGRADUATE ADMISSIONS: FIRST-YEAR STUDENTS

FUNNEL	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
APPLICANTS	9.4K	▲ 14.6%	▲ 45.7%
ADMITS	6.5K	▲ 12.5%	▲ 60.7%
ENROLLS	1.7K	▼ 8.3%	▲ 26.4%
ENROLLS	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
AVG SAT	1131	▲ 17	▲ 33*
AVG HS GPA	3.38	▲ 0.04	▲ 0.15



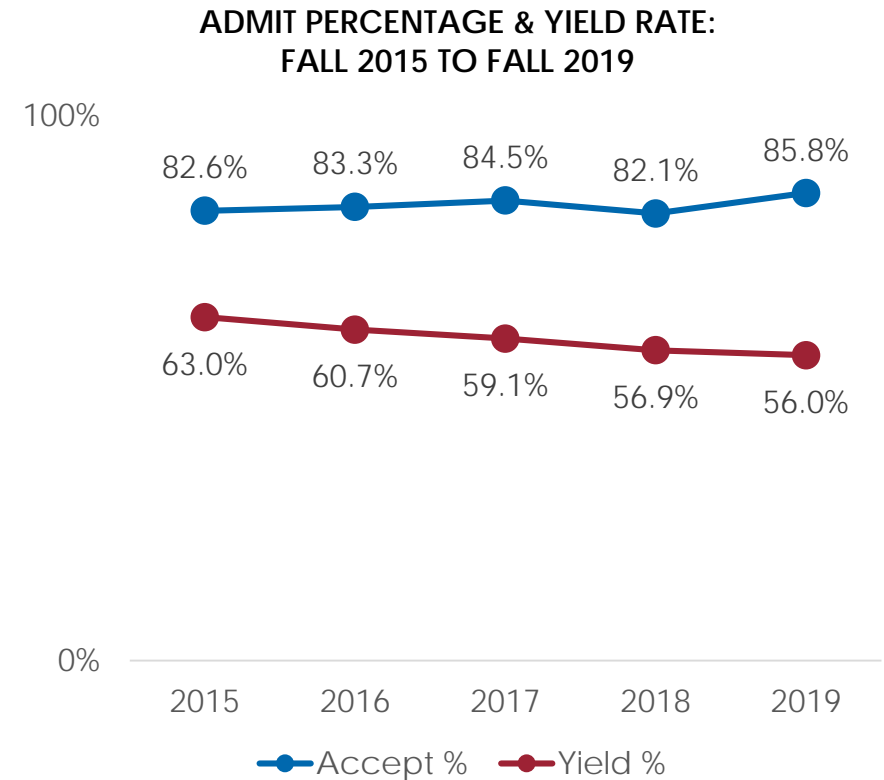
*SAT scores are from 2017 after test was revised in 2016.

Boston Transfer Enrollment

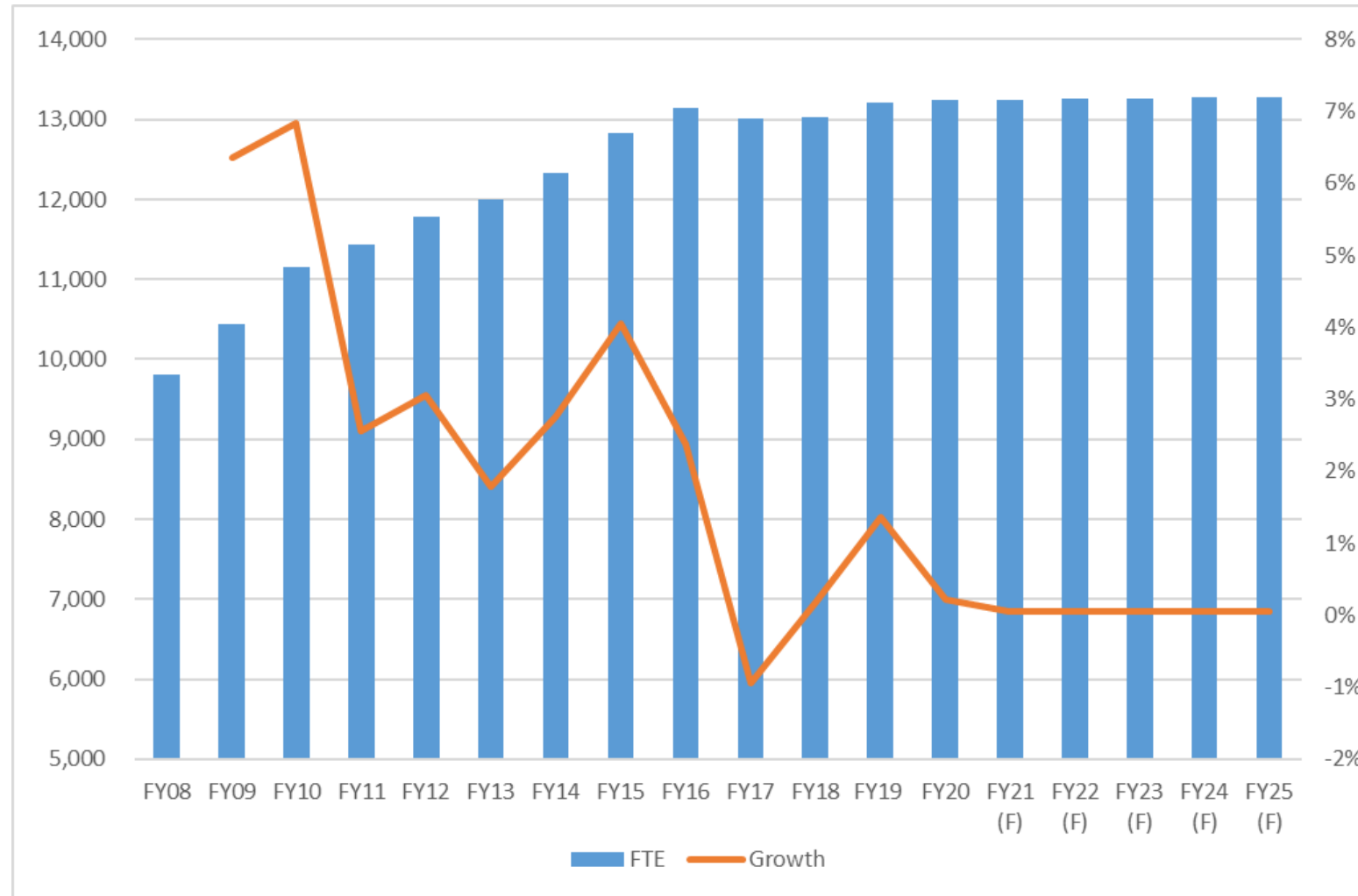
At Boston, the transfer student funnel has shrunk vs. 2015 levels; enrollment shows slight increase over last year, though yields continue to decline.

BOSTON UNDERGRADUATE ADMISSIONS: TRANSFER STUDENTS

FUNNEL	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
APPLICANTS	2.8K	▼ 1.6%	▼ 17.4%
ADMITS	2.4K	▲ 2.8%	▼ 13.0%
ENROLLS	1.3K	▲ 1.2%	▼ 27.1%

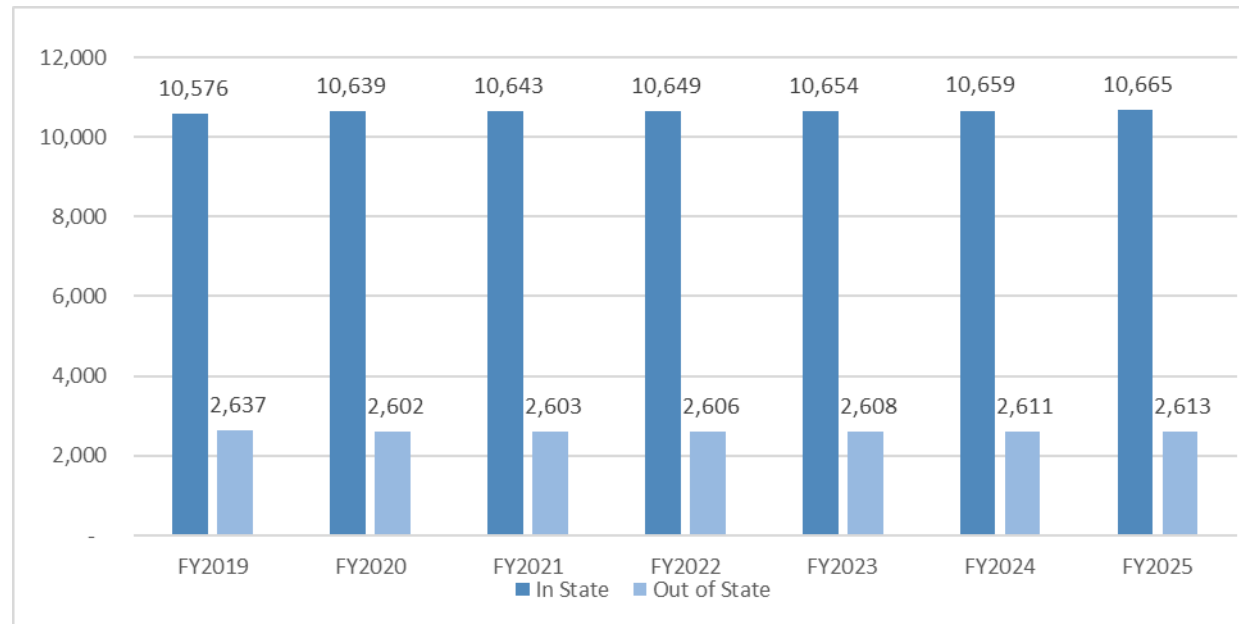


Boston: Enrollment Trend



Source: Actuals from student profile.

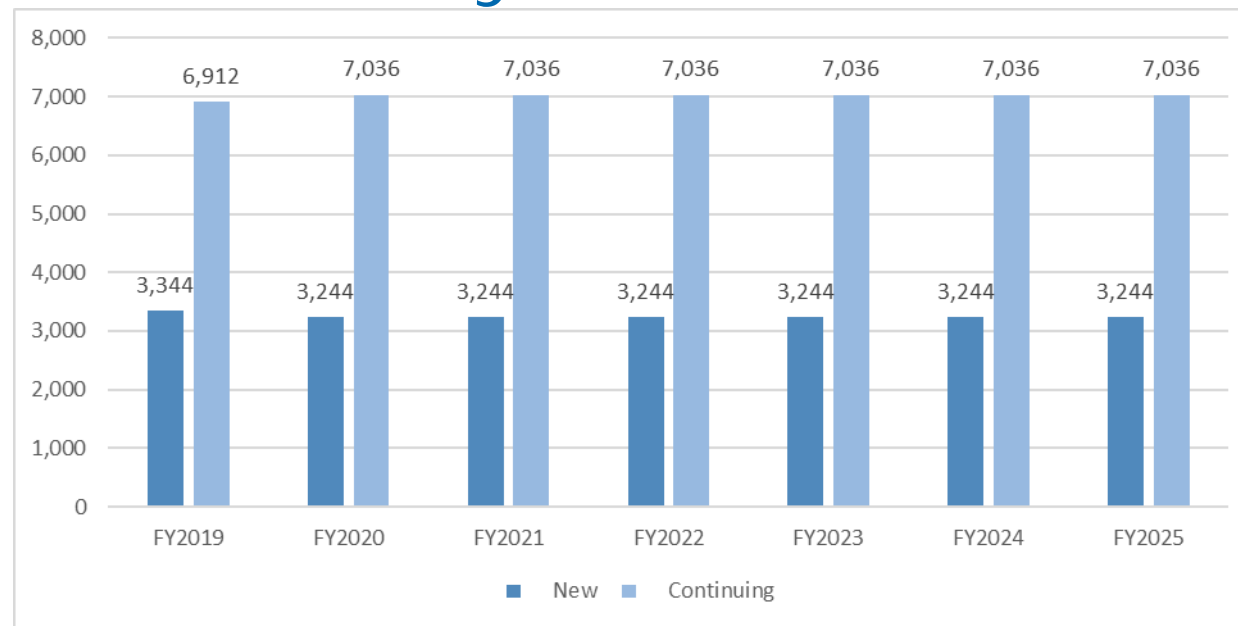
Boston: Enrollment by Residency



Boston Students (FTEs)	Actual		Forecast				
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
In State	10,576	10,639	10,643	10,649	10,654	10,659	10,665
% Change	3.2%	0.6%	0.0%	0.0%	0.1%	0.1%	0.1%
Out of State	2,637	2,602	2,603	2,606	2,608	2,611	2,613
% Change	-5.4%	-1.3%	0.1%	0.1%	0.1%	0.1%	0.1%
Total	13,213	13,241	13,247	13,254	13,262	13,270	13,278
% Change	1.4%	0.2%	0.0%	0.1%	0.1%	0.1%	0.1%

Source: Actuals from student profile.

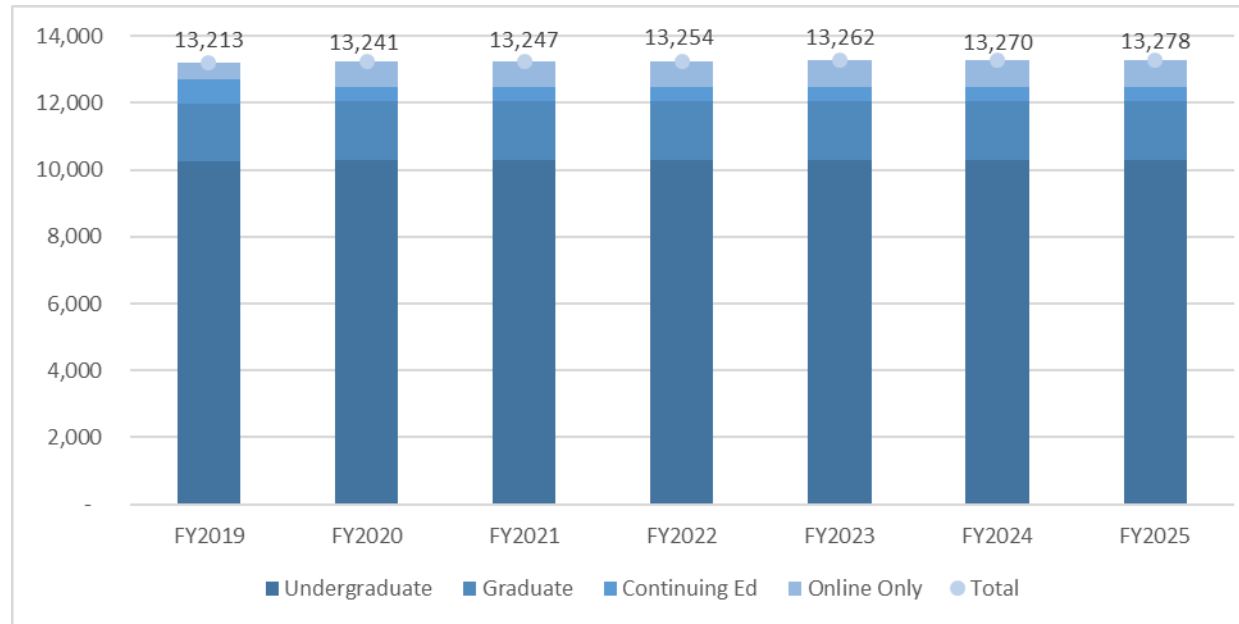
Boston: Enrollment by New v Continuing



Boston Undergraduate (FTEs)	Actual			Forecast			
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
New	3,344	3,244	3,244	3,244	3,244	3,244	3,244
% Change	11.6%	-3.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Continuing	6,912	7,036	7,036	7,036	7,036	7,036	7,036
% Change	1.1%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Undergraduate Total	10,256	10,280	10,280	10,280	10,280	10,280	10,280
% Change	4.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: Actuals from student profile.

Boston: Enrollment by Career



Boston Students (FTEs)	Actual		Forecast				
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Undergraduate	10,256	10,280	10,280	10,280	10,280	10,280	10,280
% Change	4.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Graduate	1,714	1,771	1,771	1,771	1,771	1,771	1,771
% Change	-4.9%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Continuing Ed	715	419	419	419	419	419	419
Online Only	528	769	777	784	792	800	808
% Change	-11.2%	-4.4%	0.6%	0.6%	0.7%	0.7%	0.7%
Total	13,213	13,241	13,247	13,254	13,262	13,270	13,278
% Change	1.4%	0.2%	0.0%	0.1%	0.1%	0.1%	0.1%

Source: Actuals from student profile.

Boston: Staffing

Employee FTEs	BOSTON									
	Actual			Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Restricted										
Faculty	22	15	14	13	10	12	12	12	12	12
Staff	160	150	131	150	132	144	144	144	144	144
Total Restricted	182	165	145	163	142	156	156	156	156	156
<i>FTE Change (#)</i>		(17)	(20)	18	(3)	(7)	0	0	0	0
Unrestricted General University Ops										
Faculty	861	840	849	784	864	833	828	821	820	820
Staff	1,024	929	960	866	941	914	908	887	886	886
Total General University Ops	1,885	1,769	1,809	1,651	1,805	1,747	1,736	1,708	1,706	1,706
<i>FTE Change (#)</i>		(116)	40	(159)	(4)	97	(11)	(28)	(2)	0
Unrestricted Aux./Independent Business										
Faculty	-	-	-	-	-	-	-	-	-	-
Staff	61	43	27	30	27	27	27	27	27	27
Total Aux./Independent Business	61	43	27	30	27	27	27	27	27	27
<i>FTE Change (#)</i>		(18)	(16)	3	0	(3)	0	0	0	0
Total Faculty & Staff	2,128	1,977	1,981	1,844	1,974	1,930	1,919	1,891	1,889	1,889
		-7.1%	0.2%	-7.0%	-0.4%	4.7%	-0.6%	-1.5%	-0.1%	0.0%

Boston: Staffing Ratios

BOSTON

	Actual			Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
<i>Student - Faculty</i>										
Student (FTE)	13,101	13,036	13,213	13,134	13,241	13,247	13,254	13,262	13,270	13,278
Faculty (FTE)	883	855	863	797	874	845	840	833	832	832
Student-Faculty Ratio	14.8	15.2	15.3	16.5	15.2	15.7	15.8	15.9	15.9	16.0
<i>Staff - Faculty (All)</i>										
Staff (FTE)	1,245	1,122	1,119	1,046	1,101	1,085	1,079	1,058	1,057	1,057
Faculty (FTE)	883	855	863	797	874	845	840	833	832	832
Staff-Faculty Ratio	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
<i>Staff - Faculty (E&G)</i>										
Staff (FTE)	1,024	929	960	866	941	914	908	887	886	886
Faculty (FTE)	861	840	849	784	864	833	828	821	820	820
Staff-Faculty Ratio (E&G)	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1

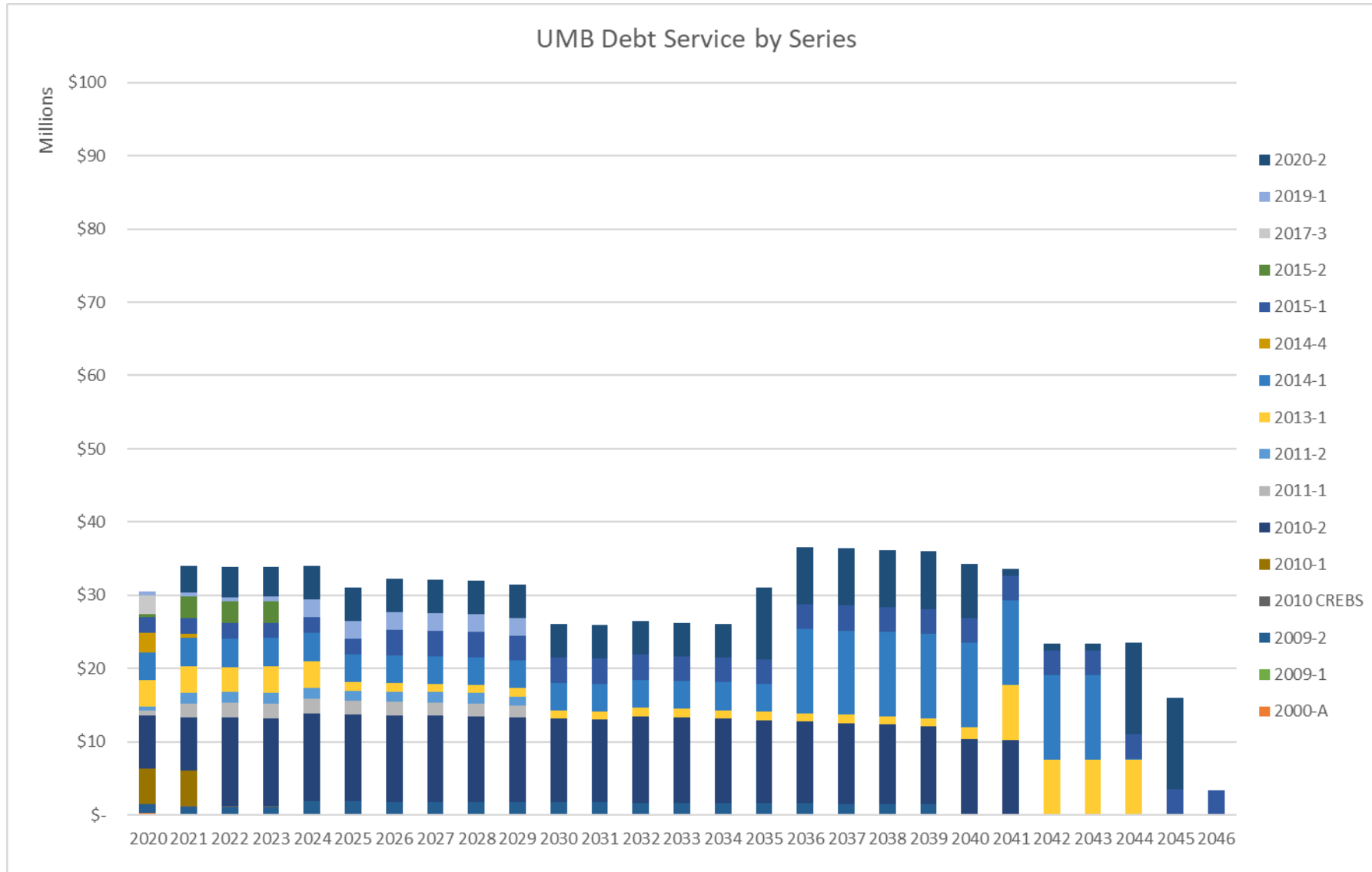
Boston: Key Ratios

Key Ratio	BOSTON										
	Actual					Budget	Forecast				
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Operating Margin (%)	0.5%	-1.3%	-0.7%	0.6%	0.9%	0.0%	1.0%	1.5%	2.0%	2.0%	2.0%
Operating Margin (\$)	1,822	(5,369)	(3,001)	2,387	3,896		4,514	6,919	9,416	9,615	9,816
Operating Cash Flow Margin (%)	6.4%	5.4%	7.1%	9.0%	11.2%	12.6%	13.7%	14.1%	15.1%	15.5%	15.6%
Operating Cash Flow Margin (\$)	23,220	21,192	28,684	36,282	46,650	53,552	59,249	61,964	68,537	71,811	74,341
Debt Service Burden (%)	5.2%	4.9%	5.9%	6.3%	6.9%	7.9%	7.8%	7.4%	7.2%	6.6%	5.9%
Debt Service Coverage (x)	1.2	1.0	1.1	1.4	1.6	1.5	1.7	1.9	2.1	2.3	2.6
Financial Leverage (x)	0.23	0.16	0.12	0.12	0.16	0.12	0.18	0.43	0.42	0.48	0.52
Total Debt (\$ in thousands)	516,180	505,552	622,941	611,819	616,667	621,140	587,291	556,027	541,204	527,887	516,915
Spendable Cash & Investments to Op Expenses (x)	0.33	0.20	0.19	0.19	0.24	0.17	0.25	0.55	0.51	0.56	0.58
Enrollment	12,833	13,195	13,101	13,036	13,213	13,134	13,247	13,254	13,262	13,270	13,278
Enrollment (% Change)	4.1%	2.8%	-0.7%	-0.5%	1.4%	-0.6%	0.0%	0.1%	0.1%	0.1%	0.1%

*FY20 Debt Burden excludes Bayside principal pre-payment.

FY15 – FY19 Capital Review: Boston Projects

Campus	Project	Adjusted Cost	Phase
Boston	Demolish UMass Bayside Buildings and Improve Parking Lot (Master Plan Phase I)	\$7,318,927	9A - Construction Complete
Boston	Fox Point Dock: Upgrades and ADA Accessibility	\$2,808,489	9A - Construction Complete
Boston	Grounds: Sea Wall and Harborwalk Construction on North-Facing Shore	\$2,818,938	9A - Construction Complete
Boston	Healey Building: Roof Replacement and Building Envelope Repairs	\$8,340,000	9A - Construction Complete
Boston	Center for Personalized Cancer Therapy (Life Sciences Bond Bill Earmark) (Master Plan Phase I)	\$10,000,000	9A - Construction Complete
Boston	Construct New General Academic Building 1, University Hall (Master Plan Phase I)	\$136,800,000	9A - Construction Complete
Boston	Construct New Integrated Sciences Complex (Master Plan Phase I)	\$176,875,765	9A - Construction Complete
Total		\$344,722,119	



Dartmouth

About UMass Dartmouth

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



Dartmouth: Revenue & Expenses

(\$ in Thousands)

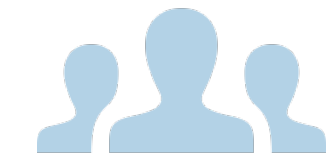
DARTMOUTH

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Gross Tuition & Fees	108,033	112,467	115,421	116,766	121,340	123,551	117,578	120,970	124,093	127,550	131,217	135,120	11.7%	2.8%
Tuition Discounts	(35,764)	(35,987)	(38,179)	(38,795)	(42,762)	(43,226)	(42,681)	(42,339)	(43,432)	(44,643)	(45,926)	(47,292)	11.7%	2.8%
Discount Rate	33.1%	32.0%	33.1%	33.2%	35.2%	35.0%	36.3%	35.0%	35.0%	35.0%	35.0%	35.0%	0.0%	0.0%
Net Tuition & Fees	72,269	76,480	77,242	77,971	78,578	80,325	74,897	78,631	80,661	82,907	85,291	87,828	11.7%	2.8%
Grants	17,761	18,511	19,534	18,925	18,918	18,951	18,196	19,000	19,000	19,000	19,000	19,000	0.0%	0.0%
Sales & Service, Educational	40	71	45	96	164	-	119	-	-	-	-	-	-	-
Auxiliary Enterprises	47,374	48,835	48,349	47,666	49,451	52,413	46,361	41,584	43,277	45,050	46,909	48,836	17.4%	4.1%
Other Operating	6,447	5,016	6,237	4,438	2,955	2,958	2,958	3,795	3,859	3,924	3,981	4,045	6.6%	1.6%
State appropriations	70,006	75,971	80,436	83,740	86,385	89,352	89,363	92,230	95,240	98,330	101,480	104,710	13.5%	3.2%
Other NonOperating	17,795	16,397	16,542	17,792	20,141	19,486	19,942	17,700	18,102	18,492	18,965	19,098	7.9%	1.9%
Total Revenues	231,692	241,281	248,385	250,628	256,592	263,485	251,836	252,940	260,139	267,703	275,626	283,517	12.1%	2.9%
% Growth	1.8%	4.1%	2.9%	0.9%	2.4%	2.7%	-1.9%	-4.0%	2.8%	2.9%	3.0%	2.9%		
Expenses	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Salaries & Fringe	138,028	142,174	142,247	150,061	151,746	156,795	151,190	158,132	162,951	167,905	172,999	178,289	12.7%	3.0%
Non-personnel	54,923	63,166	64,262	65,795	66,939	71,711	68,244	58,000	60,000	59,750	61,500	64,750	11.6%	2.8%
Scholarships and fellowships	7,442	5,001	4,821	5,023	5,302	5,018	5,562	5,400	5,508	5,618	5,731	5,845	8.2%	2.0%
Depreciation	16,663	17,904	18,647	20,481	21,665	21,741	21,939	21,619	22,016	22,954	24,051	23,654	9.4%	2.3%
Interest	8,252	7,968	8,786	8,910	9,466	8,622	9,290	10,578	10,270	9,966	9,621	9,254	-12.5%	-3.3%
Total Expenses	225,308	236,213	238,763	250,270	255,118	263,887	256,226	253,729	260,745	266,193	273,902	281,792	11.1%	2.7%
% Growth	-2.5%	4.8%	1.1%	4.8%	1.9%	3.4%	0.4%	-3.8%	2.8%	2.1%	2.9%	2.9%		
Operating Margin	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
UMass OM Calc Revenues	231,792	243,647	247,205	253,071	258,776	265,733	254,286	256,840	264,039	271,603	279,526	287,417	11.9%	2.9%
Total Expenses	225,308	236,213	238,763	250,270	255,118	263,887	256,226	253,729	260,745	266,193	273,902	281,792	11.1%	2.7%
Surplus / (Deficit)	6,484	7,434	8,442	2,801	3,658	1,846	(1,940)	3,111	3,294	5,410	5,624	5,625	80.8%	18.5%
UMass OM Calc	2.8%	3.1%	3.4%	1.1%	1.4%	0.7%	-0.8%	1.2%	1.2%	2.0%	2.0%	2.0%		

Dartmouth Undergraduate Enrollment

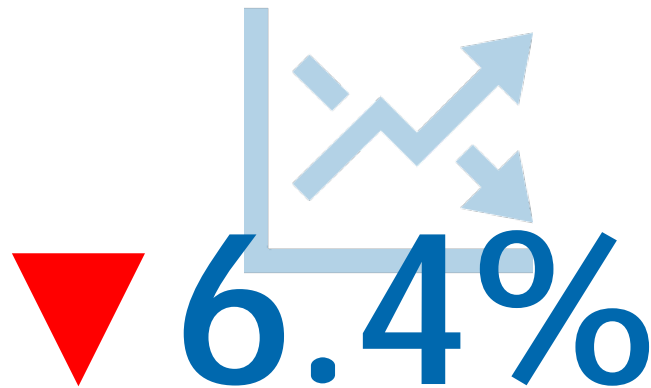
For Fall 2019, Dartmouth's undergrad headcount totals 6.4K, showing declines of 6% and 12% versus Fall 2018 and Fall 2015, respectively.

DARTMOUTH UNDERGRADUATE ENROLLMENT: FALL 2019



6.4K

HEADCOUNT



Δ VS FALL 2018



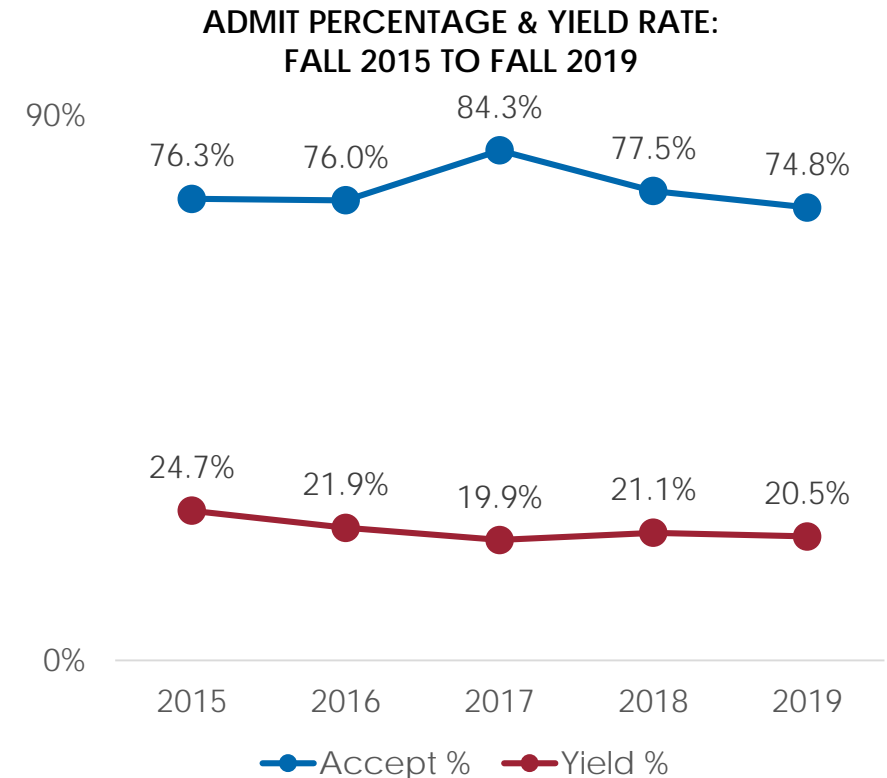
Δ VS FALL 2015

Dartmouth Undergraduate Admissions

Although Dartmouth shows increases in Applicants and Admits vs 2015, it reports slight decreases vs 2018; yields are holding steady, and academic quality shows slight increases.

DARTMOUTH UNDERGRADUATE ADMISSIONS: FIRST-YEAR STUDENTS

FUNNEL	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
APPLICANTS	8.6K	▼ 0.9%	▲ 13.6%
ADMITS	6.5K	▼ 4.3%	▲ 11.4%
ENROLLS	1.3K	▼ 7.1%	▼ 7.8%
ACAD. QUAL.	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
AVG SAT	1091	▲ 7	▼ 4*
AVG HS GPA	3.28	▲ 0.07	▲ 0.08



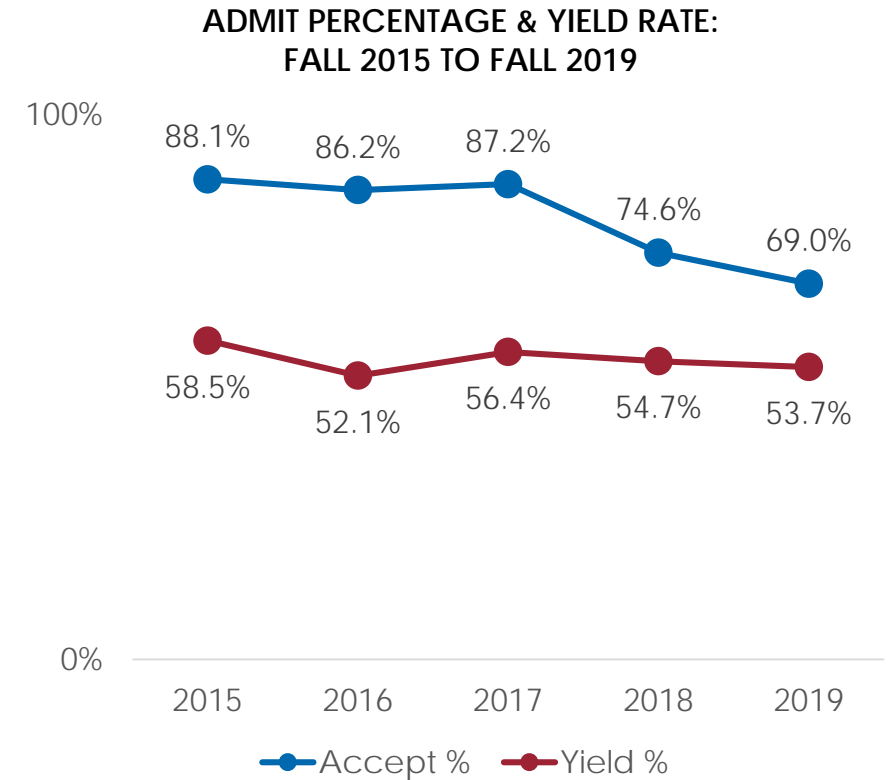
*SAT scores are from 2017 after test was revised in 2016.

Dartmouth Transfer Admissions

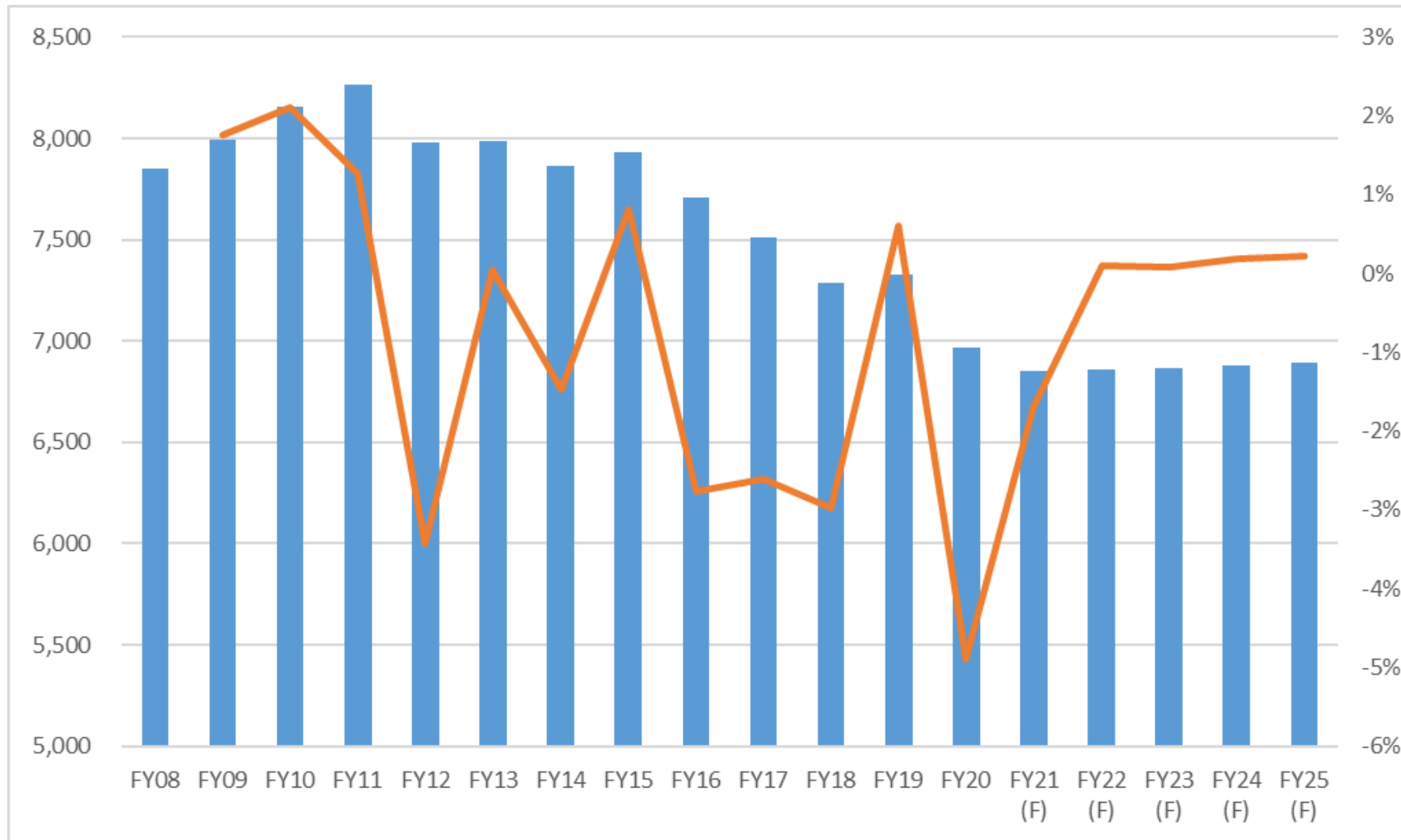
Last year, Mt. Ida's closure resulted in a one-time bonus of transfer students to Dartmouth. This year, transfer apps returned to typical levels, but admits and enrolls are the lowest in the last 5 fall classes.

DARTMOUTH UNDERGRADUATE ADMISSIONS: TRANSFER STUDENTS

FUNNEL	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
APPLICANTS	1.3K	▼ 29.7%	▲ 16.0%
ADMITS	0.9K	▼ 35.1%	▼ 7.3%
ENROLLS	0.5K	▼ 36.3%	▼ 17.7%

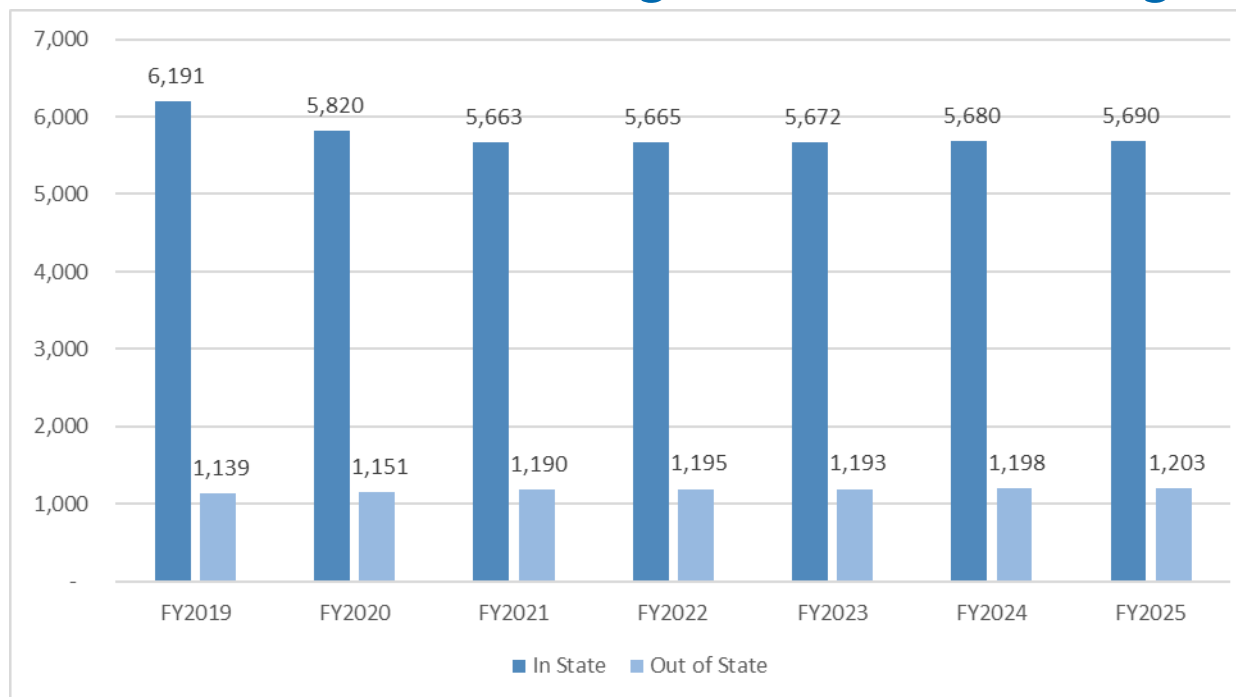


Dartmouth: Enrollment Trend



Source: Actuals from student profile.

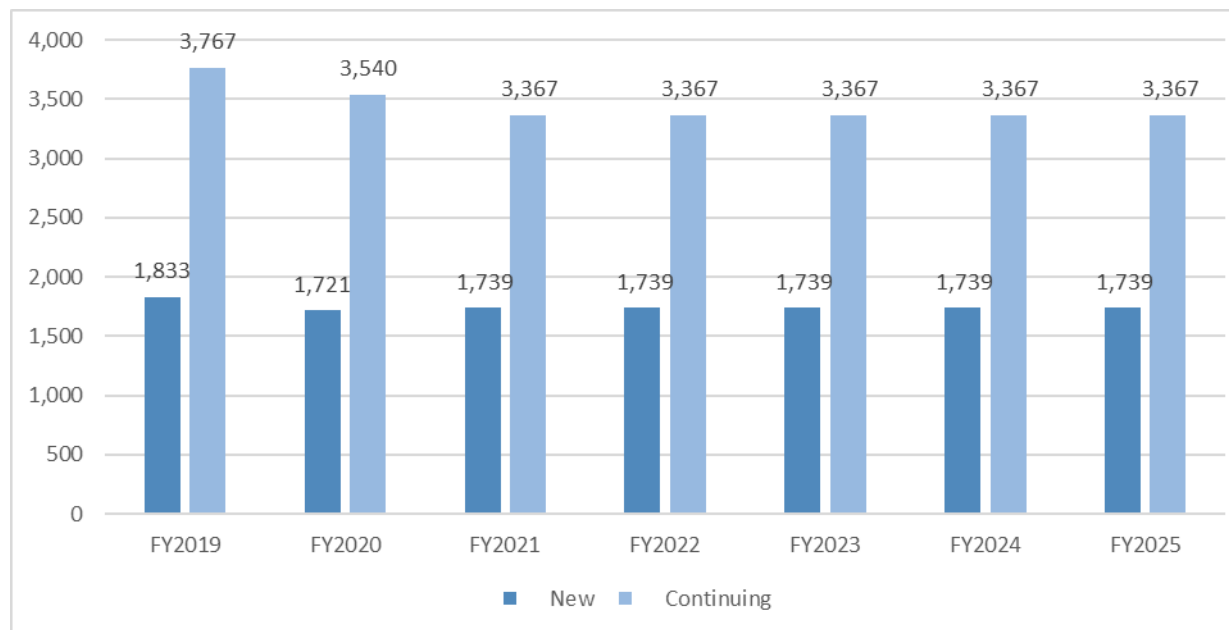
Dartmouth: Enrollment by Residency



Dartmouth Students (FTEs)	Actual		Forecast				
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
In State	6,191	5,820	5,663	5,665	5,672	5,680	5,690
% Change	-0.3%	-6.0%	-2.7%	0.0%	0.1%	0.1%	0.2%
Out of State	1,139	1,151	1,190	1,195	1,193	1,198	1,203
% Change	5.9%	1.1%	3.4%	0.4%	-0.2%	0.4%	0.4%
Total	7,330	6,971	6,853	6,860	6,865	6,878	6,893
% Change	0.6%	-4.9%	-1.7%	0.1%	0.1%	0.2%	0.2%

Source: Actuals from student profile.

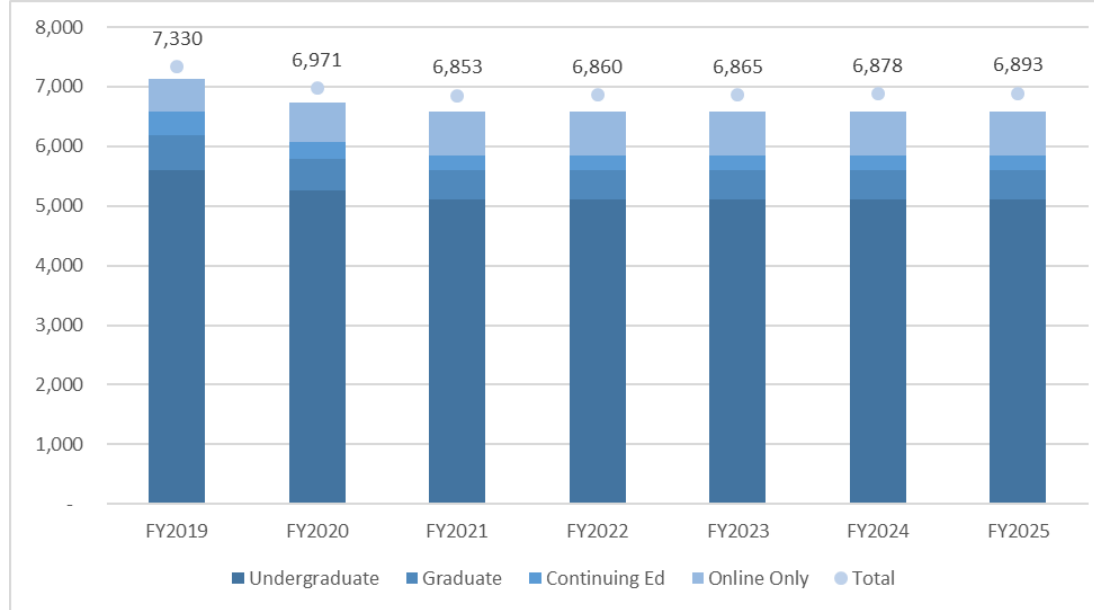
Dartmouth: Enrollment by New v Continuing



Dartmouth	Actual		Forecast				
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Undergraduate (FTEs)							
New	1,833	1,721	1,739	1,739	1,739	1,739	1,739
% Change	11.3%	-6.1%	1.1%	0.0%	0.0%	0.0%	0.0%
Continuing	3,767	3,540	3,367	3,367	3,367	3,367	3,367
% Change	-4.3%	-6.0%	-4.9%	0.0%	0.0%	0.0%	0.0%
Undergraduate Total	5,600	5,261	5,106	5,106	5,106	5,106	5,106
% Change	0.3%	-6.1%	-2.9%	0.0%	0.0%	0.0%	0.0%

Source: Actuals from student profile.

Dartmouth: Enrollment by Career



Dartmouth Students (FTEs)	Actual		Forecast				
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Undergraduate	5,600	5,261	5,105	5,105	5,105	5,105	5,105
% Change	0.3%	-6.1%	-3.0%	0.0%	0.0%	0.0%	0.0%
Graduate	594	536	490	490	490	490	490
% Change	-14.9%	-9.8%	-8.6%	0.0%	0.0%	0.0%	0.0%
Continuing Ed	391	279	255	255	255	255	255
Online Only	546	649	727	727	727	727	727
% Change	13.9%	-1.0%	5.8%	0.0%	0.0%	0.0%	0.0%
Law School	199	246	276	283	288	301	316
% Change	8.4%	23.6%	12.2%	2.5%	1.8%	4.5%	5.0%
Total	7,330	6,971	6,853	6,860	6,865	6,878	6,893
% Change	0.6%	-4.9%	-1.7%	0.1%	0.1%	0.2%	0.2%

Source: Actuals from student profile.

Dartmouth: Staffing

Employee FTEs	DARTMOUTH									
	Actual			Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Restricted										
Faculty	4	4	4	5	5	3	3	3	3	3
Staff	18	32	35	35	30	30	30	30	30	30
Total Restricted	22	36	39	40	36	33	33	33	33	33
<i>FTE Change (#)</i>		14	3	1	(3)	(7)	-	-	-	-
Unrestricted General University Ops										
Faculty	419	452	405	457	456	429	424	420	420	420
Staff	571	593	582	578	578	563	560	560	560	560
Total General University Ops	990	1,045	987	1,035	1,034	992	984	980	980	980
<i>FTE Change (#)</i>		55	(58)	48	47	(43)	(8)	(4)	-	-
Unrestricted Aux./Independent Business										
Faculty	-	-	-	-	-	-	-	-	-	-
Staff	107	106	99	102	91	90	90	90	90	90
Total Aux./Independent Business	107	106	99	102	91	90	90	90	90	90
<i>FTE Change (#)</i>		(1)	(7)	3	(8)	(12)	0	0	0	-
Total Faculty & Staff	1,119	1,187	1,125	1,177	1,161	1,115	1,107	1,103	1,103	1,103
		6.1%	-5.2%	4.6%	3.2%	-5.3%	-0.7%	-0.4%	0.0%	0.0%

Dartmouth: Staffing Ratios

DARTMOUTH

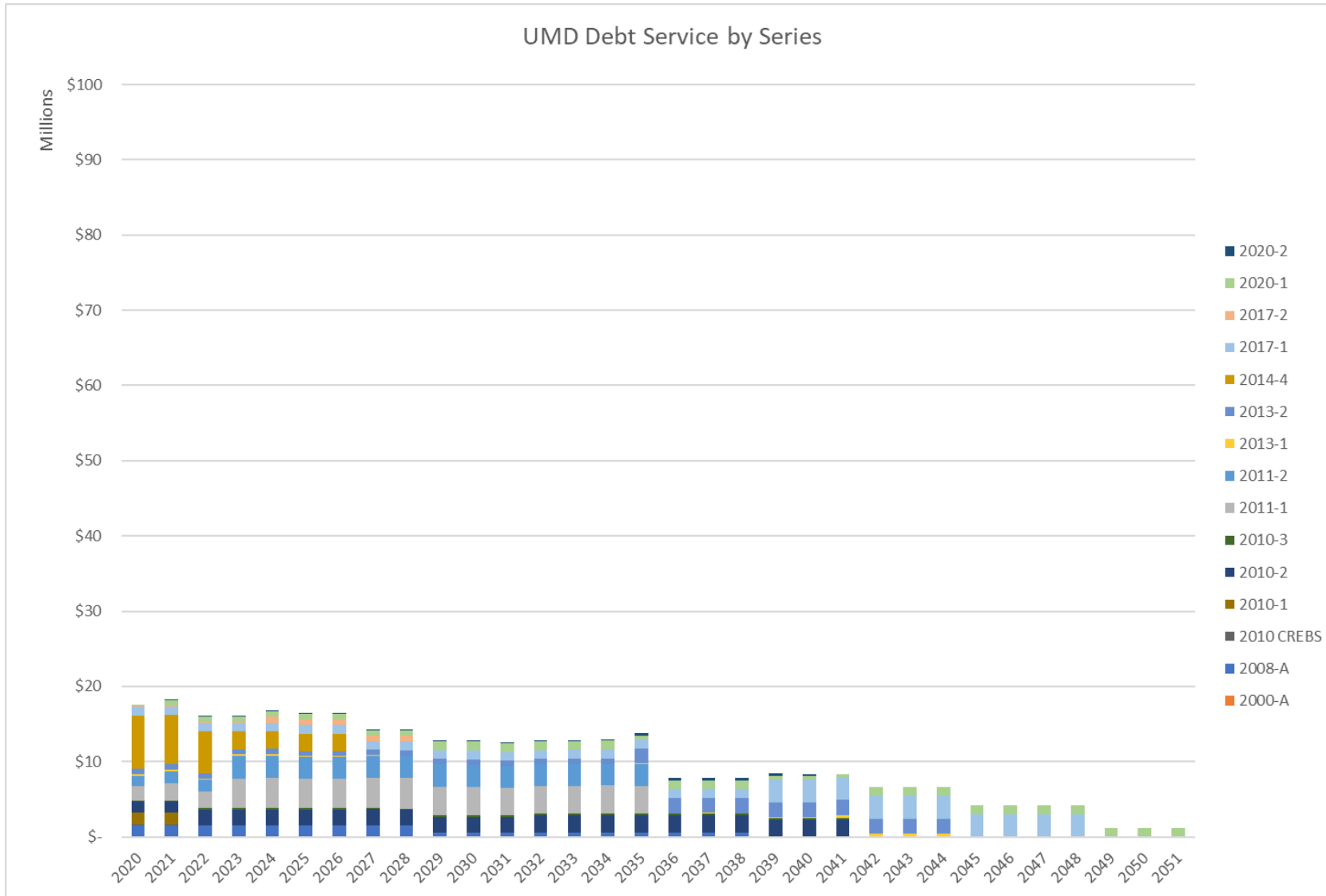
	Actual			Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
<i>Student - Faculty</i>										
Student (FTE)	7,558	7,286	7,330	6,963	6,971	6,853	6,860	6,865	6,878	6,893
Faculty (FTE)	423	456	409	462	462	432	427	423	423	423
Student-Faculty Ratio	17.9	16.0	17.9	15.1	15.1	15.9	16.1	16.2	16.3	16.3
<i>Staff - Faculty (All)</i>										
Staff (FTE)	696	731	716	715	699	683	680	680	680	680
Faculty (FTE)	423	456	409	462	462	432	427	423	423	423
Staff-Faculty Ratio	1.6	1.6	1.8	1.5	1.5	1.6	1.6	1.6	1.6	1.6
<i>Staff - Faculty (E&G)</i>										
Staff (FTE)	571	593	582	578	578	563	560	560	560	560
Faculty (FTE)	419	452	405	457	456	429	424	420	420	420
Staff-Faculty Ratio (E&G)	1.4	1.3	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3

Dartmouth: Key Ratios

Key Ratio	DARTMOUTH										
	Actual					Budget		Forecast			
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Operating Margin (%)	2.8%	3.1%	3.4%	1.1%	1.4%	0.7%	1.2%	1.2%	2.0%	2.0%	2.0%
<i>Operating Margin (\$)</i>	6,484	7,434	8,442	2,801	3,658	1,846	3,111	3,294	5,410	5,624	5,625
Operating Cash Flow Margin (%)	12.5%	12.1%	13.9%	10.6%	12.8%	12.2%	12.9%	12.7%	13.4%	13.5%	12.9%
<i>Operating Cash Flow Margin (\$)</i>	27,482	28,208	33,475	25,525	32,192	31,656	32,153	32,518	35,206	36,553	36,045
Debt Service Burden (%)	9.3%	8.4%	7.8%	7.6%	7.8%	7.0%	8.4%	7.4%	7.2%	7.3%	7.0%
Debt Service Coverage (x)	1.3	1.4	1.8	1.3	1.6	1.7	1.5	1.7	1.8	1.8	1.8
Financial Leverage (x)	0.16	0.20	0.21	0.28	0.19	0.14	0.16	0.17	0.19	0.22	0.24
Total Debt (\$ in thousands)	217,036	201,118	215,530	205,513	351,884 -	334,020 -	347,375	337,710	327,489	315,980	304,092
Spendable Cash & Investments to Op Expenses (x)	0.16	0.17	0.20	0.24	0.27	0.18	0.23	0.23	0.24	0.26	0.27
Enrollment	7,930	7,766	7,558	7,286	7,330	7,291	6,853	6,860	6,865	6,878	6,893
<i>Enrollment (% Change)</i>	0.8%	-2.1%	-2.7%	-3.6%	0.6%	-0.5%	-1.7%	0.1%	0.1%	0.2%	0.2%

FY15 – FY19 Capital Review: Dartmouth Projects

Campus	Project	Adjusted Cost	Phase
Dartmouth	ATMC Acquisition	\$11,400,000	9B - Financially Complete
Dartmouth	Massachusetts Accelerator for Biomanufacturing - MAB, Fall River	\$30,577,590	9A - Construction Complete
Dartmouth	Energy / Water Savings Project	\$35,007,581	9A - Construction Complete
Dartmouth	Fitness Center Expansion	\$7,750,000	9A - Construction Complete
Dartmouth	Charlton College of Business, Phase II	\$14,537,469	9A - Construction Complete
Total		\$99,272,640	



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

(\$ in Thousands)

LOWELL

Revenues	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Gross Tuition & Fees	205,731	224,065	243,228	256,002	259,130	274,927	269,475	279,465	289,369	300,670	312,538	324,879	16.3%	3.7%
Tuition Discounts	(40,768)	(45,417)	(54,517)	(61,218)	(65,369)	(67,770)	(68,461)	(70,853)	(72,427)	(74,079)	(76,136)	(78,459)	10.7%	2.5%
<i>Discount Rate</i>	19.8%	20.3%	22.4%	23.9%	25.2%	24.7%	25.4%	25.4%	25.0%	24.6%	24.4%	24.2%	-4.7%	-1.2%
Net Tuition & Fees	164,963	178,648	188,711	194,784	193,761	207,157	201,014	208,612	216,942	226,591	236,402	246,420	18.1%	4.1%
Grants	44,186	41,346	42,190	44,875	53,613	54,308	56,539	60,243	64,124	68,200	72,475	76,959	27.7%	5.9%
Sales & Service, Educational	66	89	767	925	1,436	979	1,470	1,514	1,559	1,606	1,654	1,704	12.5%	2.9%
Auxiliary Enterprises	52,725	57,782	60,570	65,030	68,923	69,681	70,460	72,237	74,060	75,930	77,847	79,813	10.5%	2.5%
Other Operating	8,205	7,984	7,008	7,438	8,129	8,070	8,373	8,625	8,883	9,149	9,424	9,706	12.5%	2.9%
State appropriations	96,633	104,725	111,859	117,668	122,802	127,702	127,381	131,767	136,263	140,883	144,885	149,449	13.4%	3.1%
Other NonOperating	23,378	27,826	28,738	28,322	36,106	30,692	32,337	33,904	35,009	36,240	36,839	37,256	9.9%	2.3%
Total Revenues	390,156	418,400	439,843	459,042	484,770	498,589	497,574	516,902	536,840	558,599	579,526	601,307	16.3%	3.7%
% Growth	7.8%	7.2%	5.1%	4.4%	5.6%	2.9%	2.6%	3.7%	3.9%	4.1%	3.7%	3.8%		
Expenses	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Salaries & Fringe	219,200	239,536	249,312	262,133	274,695	286,589	287,526	298,554	310,754	326,064	341,299	353,947	18.6%	4.2%
Non-personnel	111,693	114,923	116,761	121,734	128,938	133,023	130,210	132,289	135,224	138,278	140,682	145,678	10.1%	2.4%
Scholarships and fellowships	9,383	9,134	9,316	9,983	9,641	10,891	10,097	10,450	10,682	10,926	11,229	11,572	10.7%	2.5%
Depreciation	28,666	32,985	34,127	37,806	42,147	42,514	44,169	45,591	47,624	48,447	51,254	55,658	22.1%	4.8%
Interest	18,371	21,272	18,790	19,896	21,231	22,796	22,796	25,091	24,471	23,824	23,224	22,503	-10.3%	-2.8%
Total Expenses	387,313	417,850	428,306	451,552	476,652	495,813	494,798	511,975	528,755	547,539	567,688	589,358	15.1%	3.5%
% Growth	10.1%	7.9%	2.5%	5.4%	5.6%	4.0%	3.8%	3.3%	3.3%	3.6%	3.7%	3.8%		
Operating Margin	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
UMass OM Calc Revenues	390,241	418,546	437,730	458,337	482,786	498,589	497,574	516,902	536,840	558,599	579,526	601,307	16.3%	3.7%
Total Expenses	387,313	417,850	428,306	451,552	476,652	495,813	494,798	511,975	528,755	547,539	567,688	589,358	15.1%	3.5%
Surplus / (Deficit)	2,928	696	9,424	6,785	6,134	2,776	2,776	4,927	8,085	11,060	11,838	11,949	142.5%	18.4%
UMass OM Calc	0.8%	0.2%	2.2%	1.5%	1.3%	0.6%	0.6%	1.0%	1.5%	2.0%	2.0%	2.0%		

Lowell Undergraduate Enrollment


As of Fall 2019, undergrad enrollment at Lowell stands at 24.2K, with gains of 1% and 7% over Fall 2018 and Fall 2015, respectively.

LOWELL UNDERGRADUATE HEADCOUNT: FALL 2019



14.1K

HEADCOUNT



1.0%

Δ VS FALL 2018



6.7%

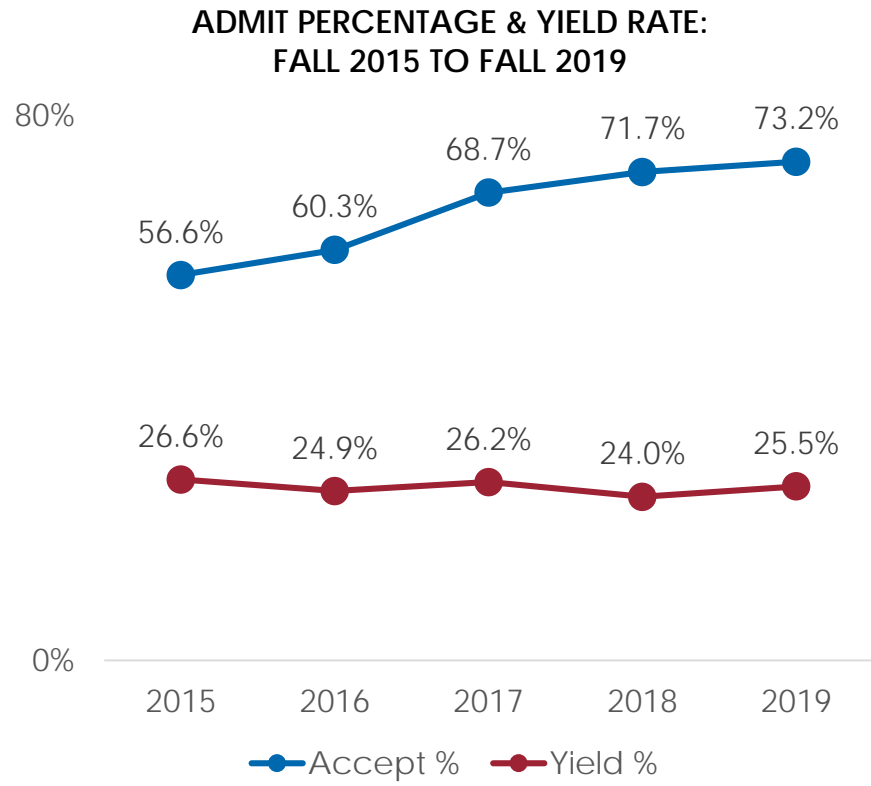
Δ VS FALL 2015

Lowell Undergraduate Admissions

Lowell continues to grow in all phases of its admissions funnel; while admits rates have climbed, yields remain stable. The academic quality of the incoming enrolling class remains high.

LOWELL UNDERGRADUATE ADMISSIONS: FIRST-YEAR STUDENTS

FUNNEL	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
APPLICANTS	12.6K	▲ 3.8%	▲ 18.3%
ADMITS	9.2K	▲ 6.0%	▲ 53.1%
ENROLLS	2.4K	▲ 12.6%	▲ 47.3%
ACAD. QUAL.	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
AVG SAT	1232	▼ 1	▲ 7*
AVG HS GPA	3.60	● 0	▲ 0.06



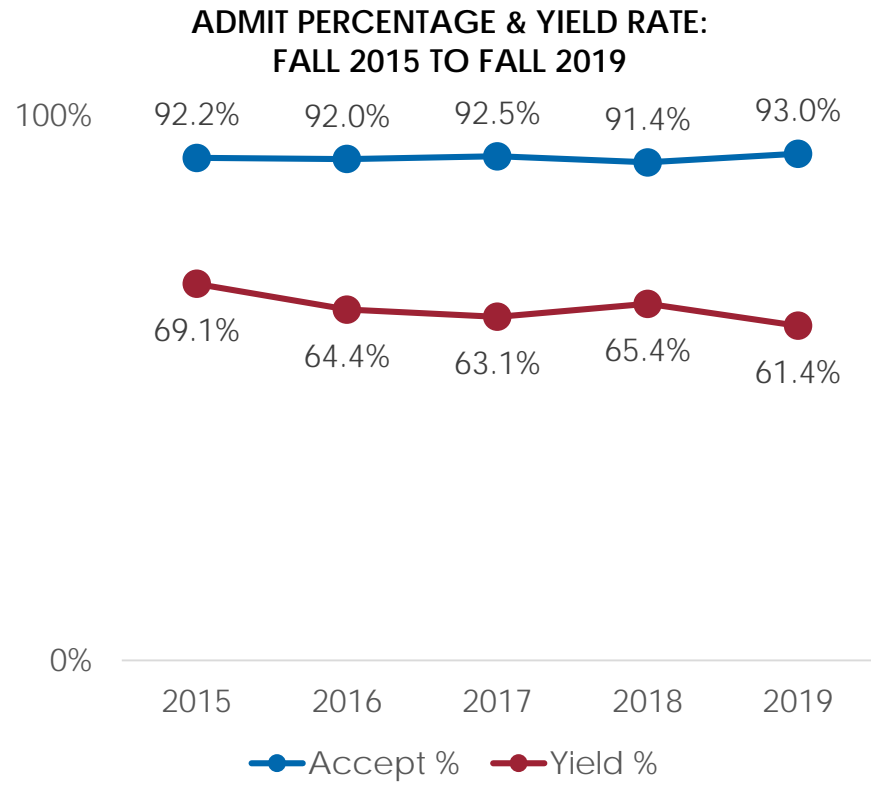
*SAT scores are from 2017 after test was revised in 2016.

Lowell Transfer Admissions

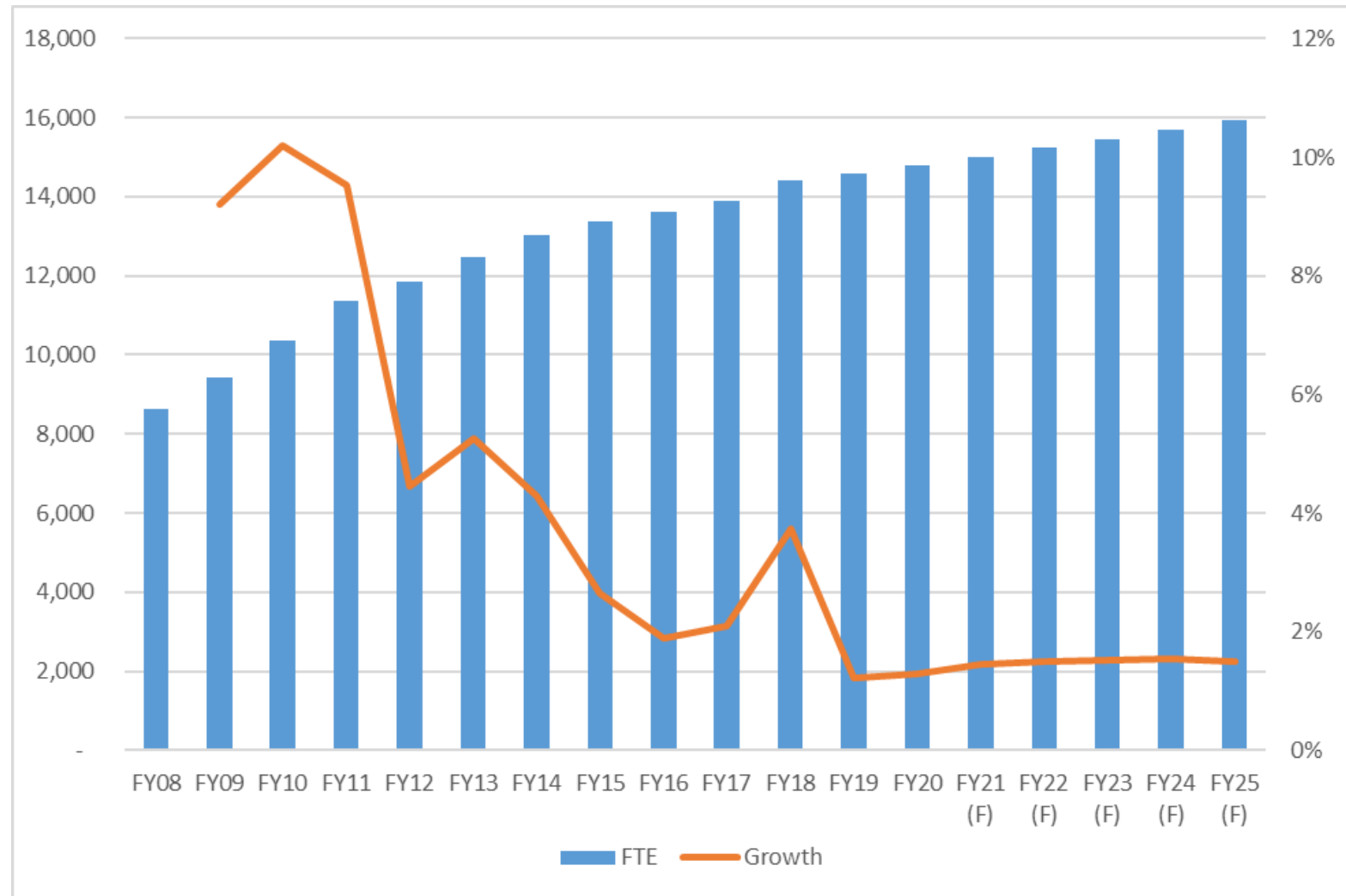
Lowell's transfer funnel reports declines in applications, admits, and enrolling students. This has been a consistent trend over the last five fall terms.

LOWELL UNDERGRADUATE ADMISSIONS: TRANSFER STUDENTS

FUNNEL	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
APPLICANTS	1.7K	▼ 5.7%	▼ 14.9%
ADMITS	1.5K	▼ 4.1%	▼ 14.0%
ENROLLS	0.9K	▼ 10.0%	▼ 28.3%

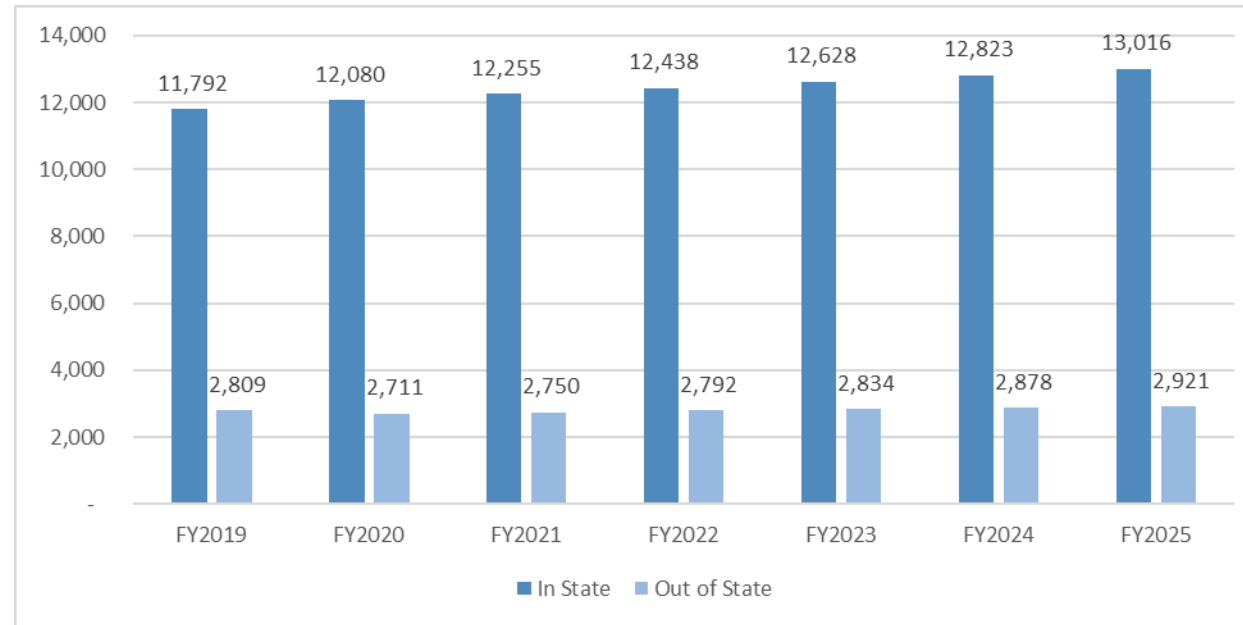


Lowell: Enrollment Trend



Source: Actuals from student profile.

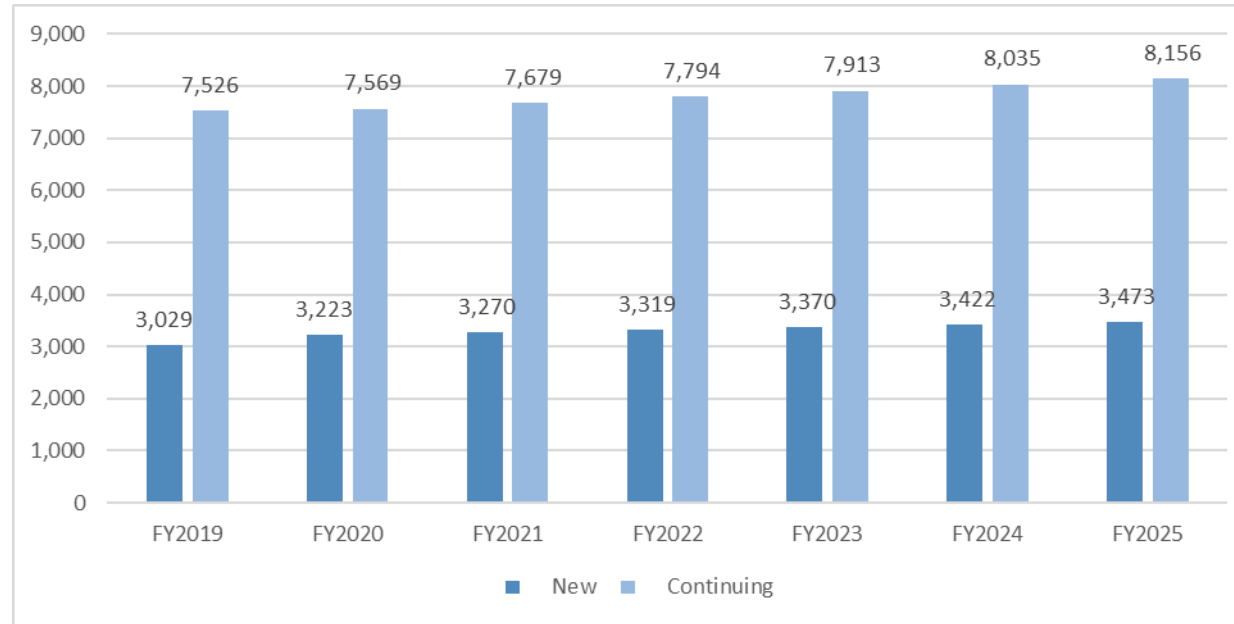
Lowell: Enrollment by Residency



Lowell Students (FTEs)	Actual				Forecast		
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
In State	11,792	12,080	12,255	12,438	12,628	12,823	13,016
% Change	2.9%	2.4%	1.5%	1.5%	1.5%	1.5%	1.5%
Out of State	2,809	2,711	2,750	2,792	2,834	2,878	2,921
% Change	-5.0%	-3.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Total	14,601	14,790	15,005	15,230	15,462	15,701	15,937
% Change	1.2%	1.3%	1.5%	1.5%	1.5%	1.5%	1.5%

Source: Actuals from student profile.

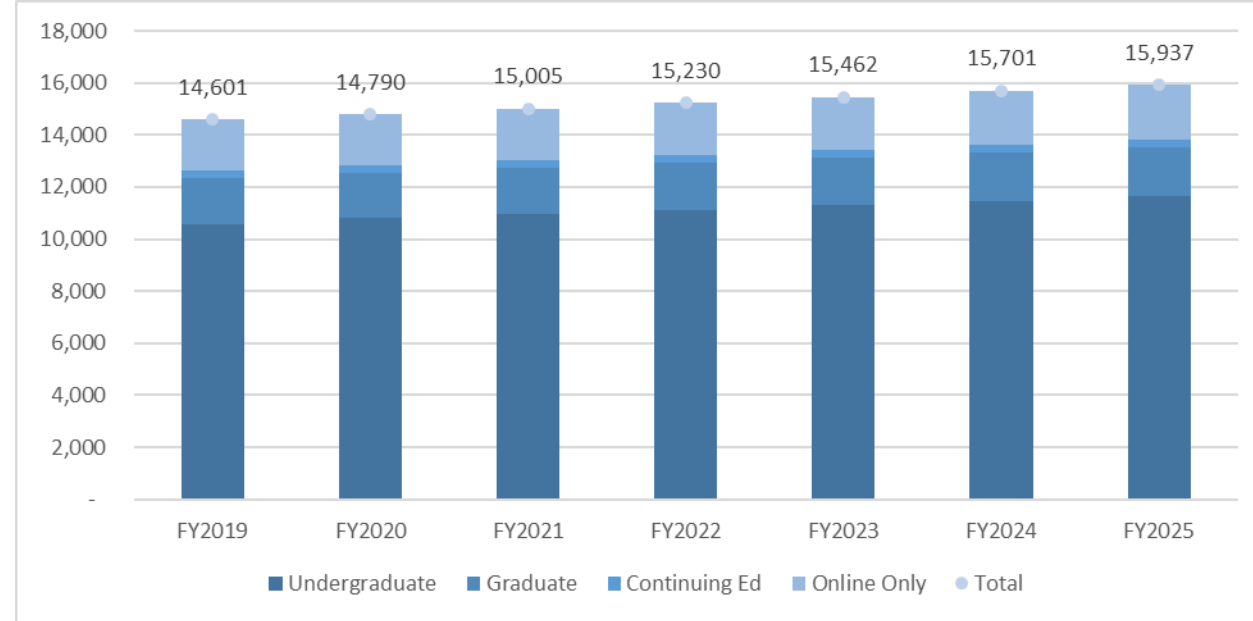
Lowell: Enrollment by New v Continuing



LOWELL	Actual				Forecast		
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Undergraduate (FTEs)							
New	3,029	3,223	3,270	3,319	3,370	3,422	3,473
% Change	5.0%	6.4%	1.5%	1.5%	1.5%	1.5%	1.5%
Continuing	7,526	7,569	7,679	7,794	7,913	8,035	8,156
% Change	2.3%	0.6%	1.5%	1.5%	1.5%	1.5%	1.5%
Undergraduate Total	10,555	10,792	10,949	11,113	11,282	11,457	11,629
% Change	3.1%	2.2%	1.5%	1.5%	1.5%	1.5%	1.5%

Source: Actuals from student profile.

Lowell: Enrollment by Career



Lowell Students (FTEs)	Actual				Forecast		
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Undergraduate	10,555	10,792	10,949	11,113	11,282	11,457	11,629
% Change	3.1%	2.2%	1.5%	1.5%	1.5%	1.5%	1.5%
Graduate	1,804	1,761	1,787	1,814	1,841	1,870	1,898
% Change	0.6%	-2.4%	1.4%	1.5%	1.5%	1.5%	1.5%
Continuing Ed	285	274	278	282	286	291	295
Online Only	1,957	1,963	1,991	2,021	2,052	2,084	2,115
% Change	-6.2%	-0.2%	1.4%	1.5%	1.5%	1.5%	1.5%
Total	14,601	14,790	15,005	15,230	15,462	15,701	15,937
% Change	1.2%	1.3%	1.5%	1.5%	1.5%	1.5%	1.5%

Source: Actuals from student profile.

Lowell: Staffing

LOWELL

Employee FTEs	Actual		Budget	Actual	Forecast					
	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Restricted										
Faculty	8	10	11	9	15	10	11	12	13	14
Staff	78	82	95	98	87	100	101	103	104	106
Total Restricted	86	92	106	107	102	110	112	115	117	120
<i>FTE Change (#)</i>		6	14	1	(4)	3	2	3	2	3
Unrestricted General University Ops										
Faculty	775	797	805	849	838	853	853	853	867	870
Staff	966	985	974	1,032	988	1,033	1,033	1,033	1,038	1,039
Total General University Ops	1,741	1,782	1,779	1,881	1,826	1,886	1,886	1,886	1,905	1,909
<i>FTE Change (#)</i>		42	(3)	102	47	5	-	-	19	4
Unrestricted Aux./Independent Business										
Faculty	-	-	-	-	-	-	-	-	-	-
Staff	38	38	75	76	71	76	76	76	76	76
Total Aux./Independent Business	38	38	75	76	71	76	76	76	76	76
<i>FTE Change (#)</i>		-	37	1	(4)	-	-	-	-	-
Total Faculty & Staff	1,865	1,912	1,960	2,064	1,999	2,072	2,074	2,077	2,098	2,105
		2.5%	2.5%	5.3%	2.0%	0.4%	0.1%	0.1%	1.0%	0.3%

Lowell: Staffing Ratios

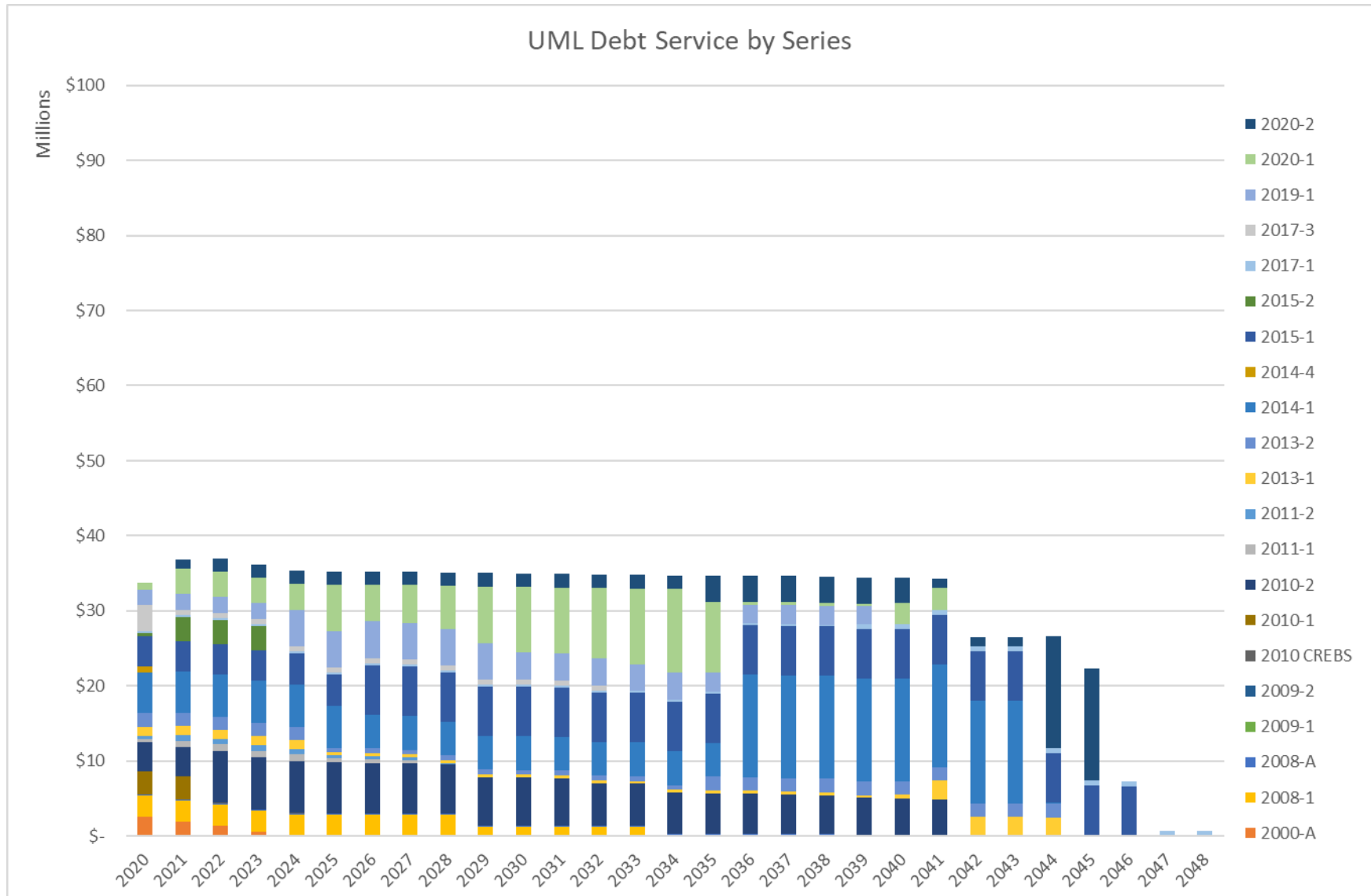
	LOWELL									
	Actual			Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
<i>Student - Faculty</i>										
Student (FTE)	13,910	14,423	14,601	14,862	14,790	15,005	15,230	15,462	15,701	15,937
Faculty (FTE)	783	807	816	858	853	863	864	865	880	884
Student-Faculty Ratio	17.8	17.9	17.9	17.3	17.3	17.4	17.6	17.9	17.8	18.0
<i>Staff - Faculty (All)</i>										
Staff (FTE)	1,082	1,105	1,144	1,206	1,146	1,209	1,210	1,212	1,218	1,221
Faculty (FTE)	783	807	816	858	853	863	864	865	880	884
Staff-Faculty Ratio	1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.4	1.4
<i>Staff - Faculty (E&G)</i>										
Staff (FTE)	966	985	974	1,032	988	1,033	1,033	1,033	1,038	1,039
Faculty (FTE)	775	797	805	849	838	853	853	853	867	870
Staff-Faculty Ratio (E&G)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

Lowell: Key Ratios

Key Ratio	LOWELL										
	Actual					Budget	Forecast				
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Operating Margin (%)	0.8%	0.2%	2.2%	1.5%	1.3%	0.6%	1.0%	1.5%	2.0%	2.0%	2.0%
<i>Operating Margin (\$)</i>	2,928	696	9,424	6,785	6,134	2,776	4,927	8,085	11,060	11,838	11,949
Operating Cash Flow Margin (%)	13.3%	12.8%	14.6%	14.3%	14.7%	13.7%	14.7%	15.0%	15.0%	15.0%	15.1%
<i>Operating Cash Flow Margin (\$)</i>	50,613	51,839	62,350	64,009	69,460	66,816	74,503	78,886	81,771	84,723	88,616
Debt Service Burden (%)	7.6%	7.5%	7.3%	7.4%	7.3%	7.5%	8.2%	7.8%	7.4%	7.1%	6.4%
Debt Service Coverage (x)	1.7	1.7	2.0	1.9	2.0	1.8	1.8	1.9	2.0	2.1	2.4
Financial Leverage (x)	0.26	0.28	0.26	0.25	0.24	0.25	0.27	0.30	0.32	0.34	0.38
Total Debt (\$ in thousands)	496,624	491,078	487,253	500,656	556,087	526,339	509,547	492,534	475,694	458,742	443,807
Spendable Cash & Investments to Op Expenses (x)	0.34	0.34	0.31	0.29	0.29	0.27	0.28	0.29	0.28	0.28	0.29
Enrollment	13,369	13,620	13,910	14,423	14,601	14,862	15,005	15,230	15,462	15,701	15,937
<i>Enrollment (% Change)</i>	2.6%	1.9%	2.1%	3.7%	1.2%	1.8%	1.5%	1.5%	1.5%	1.5%	1.5%

FY15 – FY19 Capital Review: Lowell Projects

Campus	Project	Adjusted Cost	Phase
Lowell	University Crossing - Student Life, Student Services & Admin Serv. Includes Salem St	\$97,000,000	9A - Construction Complete
Lowell	Athletic & Recreational Facility Improvements - incl. Division 1	\$5,000,000	9B - Financially Complete
Lowell	ETIC	\$84,000,000	9A - Construction Complete
Lowell	Wannalancit	\$7,100,000	9A - Construction Complete
Lowell	McGauvran Dining Conversion	\$33,664,336	9A - Construction Complete
Lowell	Leitch & Bourgeois Residence Hall Renovations	\$33,351,563	9B - Financially Complete
Lowell	Dandeneau Hall	\$16,438,124	9A - Construction Complete
Lowell	Fox Hall Elevators	\$15,812,973	9A - Construction Complete
Lowell	North Campus Quad Renewal Pod Project, Phase 1	\$18,700,000	9A - Construction Complete
Lowell	Olsen Hall	\$10,100,000	9A - Construction Complete
Lowell	Perry Hall	\$42,200,000	9A - Construction Complete
	Total	\$363,366,996	



Medical School

About UMass Medical School

- The mission of the University of Massachusetts Medical School is to advance the health and well-being of the people of the commonwealth and the world through pioneering advances in education, research and health care delivery.
- 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.



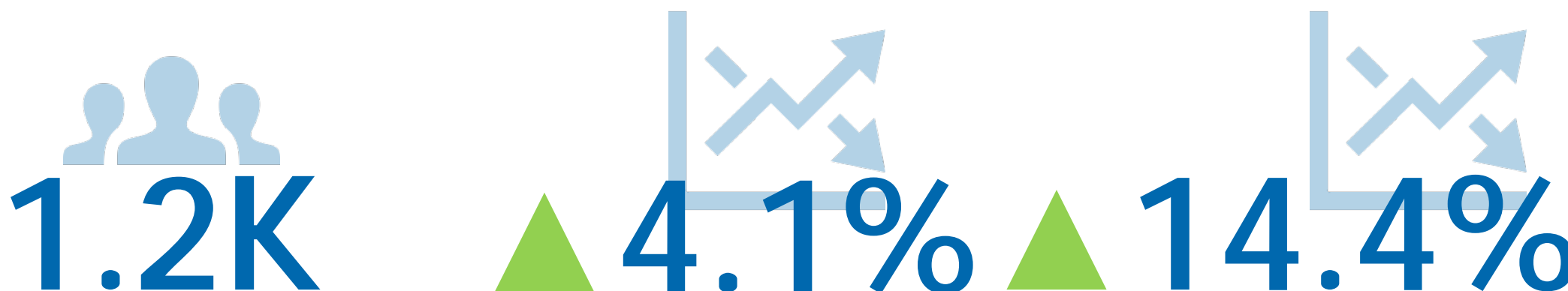
Medical School: Revenue & Expenses

(\$ in Thousands)

Revenues	MEDICAL SCHOOL													
	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Gross Tuition & Fees	18,929	20,881	24,206	28,609	34,681	36,971	36,971	38,012	39,115	40,744	43,408	46,515	22.4%	5.2%
Tuition Discounts	(2,060)	(2,269)	(2,751)	(3,320)	(4,235)	(4,764)	(4,764)	(4,898)	(4,986)	(4,989)	(5,063)	(5,139)	4.9%	1.2%
<i>Discount Rate</i>	10.9%	10.9%	11.4%	11.6%	12.2%	12.9%	12.9%	12.9%	12.7%	12.2%	11.7%	11.0%	-14.3%	-3.8%
Net Tuition & Fees	16,869	18,612	21,455	25,289	30,446	32,207	32,207	33,114	34,128	35,756	38,345	41,376	25.0%	5.7%
Grants	254,296	258,499	275,662	269,721	286,603	267,487	267,487	281,593	295,424	311,320	327,474	343,896	22.1%	5.1%
Sales & Service, Educational	10,261	12,443	12,790	14,023	15,023	12,454	12,454	12,828	13,149	13,477	13,814	14,160	10.4%	2.5%
Auxiliary Enterprises	29,099	29,271	29,626	30,797	31,561	33,826	33,826	34,151	35,005	35,880	36,777	37,696	10.4%	2.5%
Other Operating	91,425	258,246	190,611	268,909	183,269	181,547	181,547	182,279	195,251	210,332	225,477	221,578	21.6%	5.1%
State appropriations	45,843	50,634	52,250	54,560	57,959	56,086	56,086	57,677	58,810	59,966	61,144	62,346	8.1%	2.0%
Other NonOperating	14,224	5,699	37,945	27,800	32,008	26,608	26,608	30,872	31,435	31,845	33,235	33,955	10.0%	2.4%
Independent Business Lines	312,077	330,259	371,618	274,555	266,509	301,131	301,131	297,454	303,877	310,498	318,321	326,854	9.9%	2.4%
Total Revenues	774,094	963,663	991,957	965,654	903,378	911,346	911,346	929,968	967,079	1,009,073	1,054,586	1,081,861	16.3%	3.9%
% Growth	-17.4%	24.5%	2.9%	-2.7%	-6.4%	0.9%	0.9%	2.0%	4.0%	4.3%	4.5%	2.6%		
Expenses	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
Salaries & Fringe	383,248	407,159	407,304	416,112	433,752	423,153	423,153	454,383	473,947	494,202	512,538	528,360	16.3%	3.8%
Non-personnel	331,473	484,916	439,960	435,266	343,729	383,441	383,441	369,347	384,735	399,085	415,708	427,410	15.7%	3.7%
Scholarships and fellowships	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depreciation	63,166	65,133	64,801	65,013	64,722	63,889	63,889	63,520	64,688	69,438	73,022	73,022	15.0%	3.6%
Interest	34,009	30,658	30,067	26,753	24,830	19,420	19,420	19,434	21,246	24,397	30,646	29,660	52.6%	11.6%
Total Expenses	811,896	987,866	942,132	943,144	867,033	889,903	889,903	906,684	944,616	987,123	1,031,914	1,058,451	16.7%	3.9%
% Growth	-14.5%	21.7%	-4.6%	0.1%	-8.1%	2.6%	2.6%	1.9%	4.2%	4.5%	4.5%	2.6%		
Operating Margin	Actual					Budget	Q1 Projection	Forecast					% Change FY21-25	
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Cumulative	Avg. Annual
UMass OM Calc Revenues	779,282	977,267	972,803	964,299	898,882	907,996	907,996	928,008	965,082	1,007,043	1,052,502	1,079,736	16.3%	3.9%
Total Expenses	811,896	987,866	942,132	943,144	867,033	889,903	889,903	906,684	944,616	987,123	1,031,914	1,058,451	16.7%	3.9%
Surplus / (Deficit)	(32,614)	(10,599)	30,671	21,155	31,849	18,093	18,093	21,324	20,466	19,920	20,588	21,285	-0.2%	0.0%
UMass OM Calc	-4.2%	-1.1%	3.2%	2.2%	3.5%	2.0%	2.0%	2.3%	2.1%	2.0%	2.0%	2.0%		

Medical School Enrollment

MEDICAL SCHOOL GRADUATE ENROLLMENT: FALL 2019



HEADCOUNT

Δ VS FALL 2018

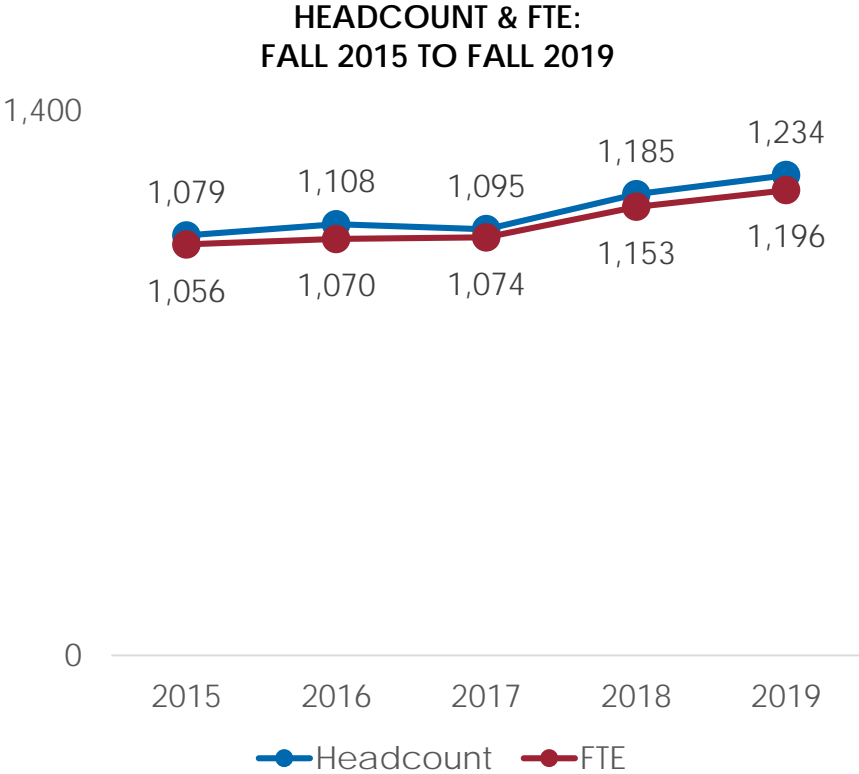
Δ VS FALL 2015

Medical School Enrollment

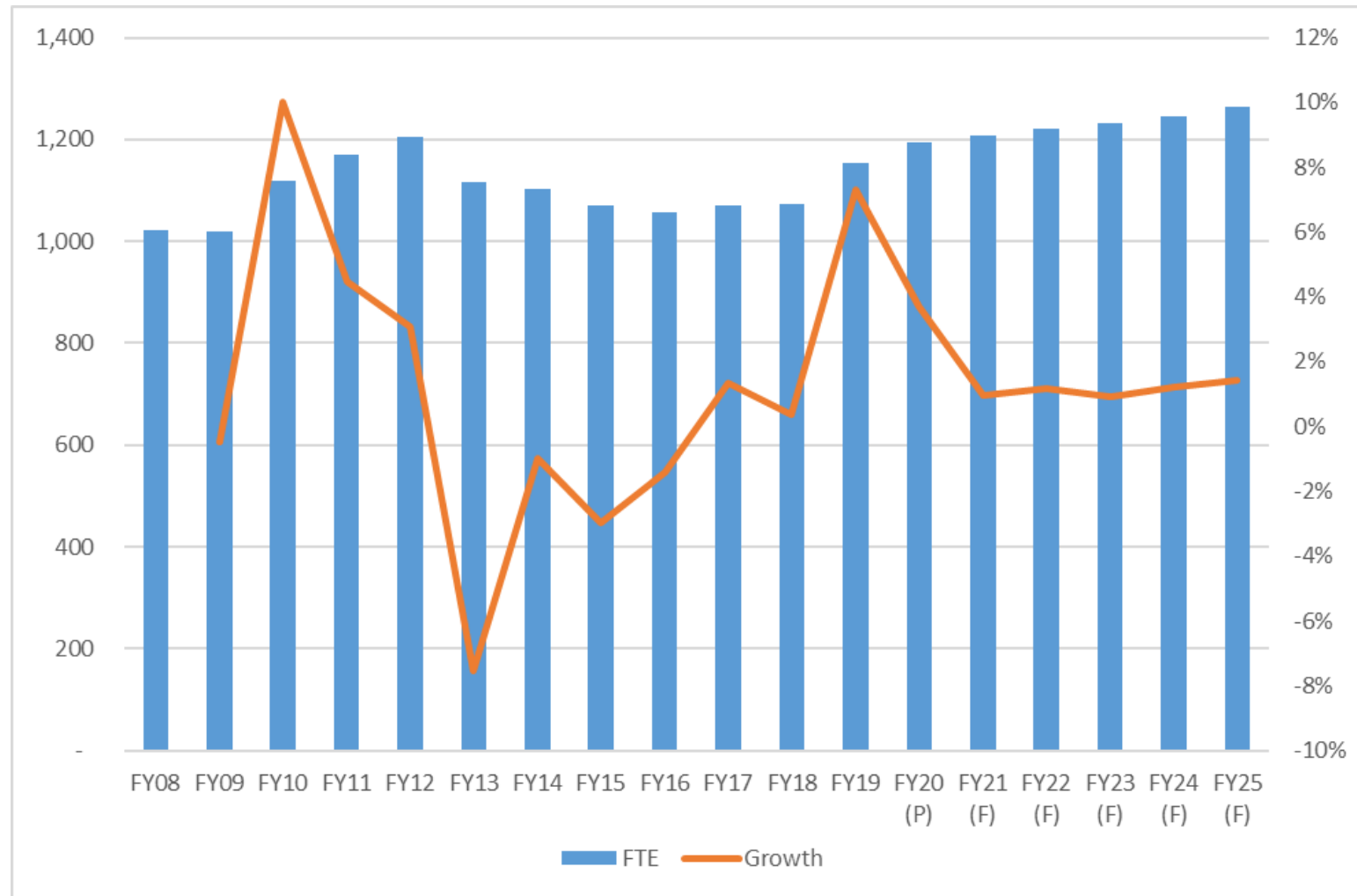
The Medical School shows steady growth in both headcount and enrollment.

MEDICAL SCHOOL GRADUATE ENROLLMENT (ALL PROGRAMS)

COUNTS	FALL 2019	Δ VS FALL 2018	Δ VS FALL 2015
HEADCOUNT	1.2K	▲ 4.1%	▲ 12.6%
FTE	1.2K	▲ 3.7%	▲ 11.7%

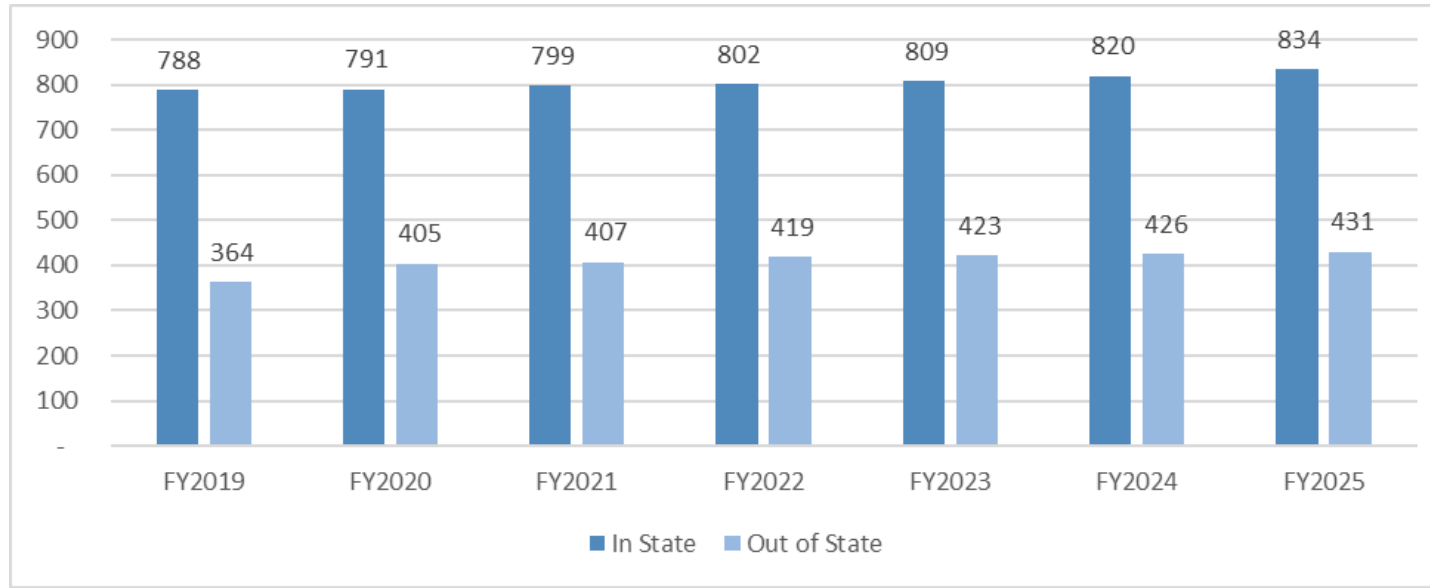


Medical School: Enrollment Trend



Source: Actuals from student profile.

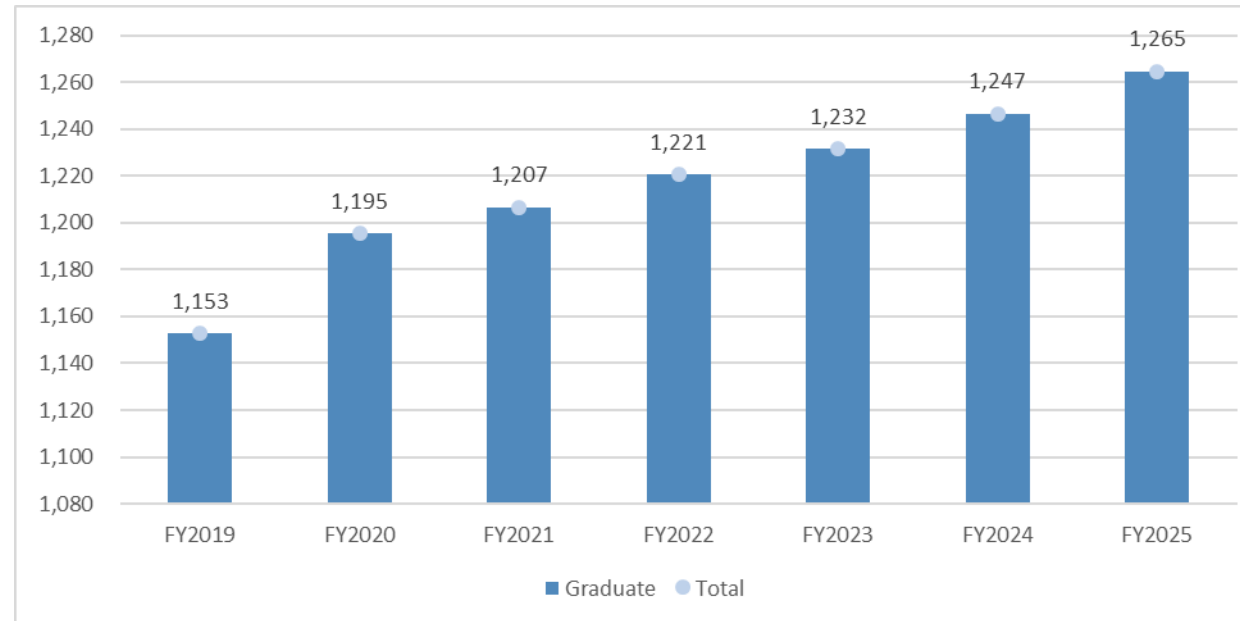
Medical School: Enrollment by Residency



Medical Students (FTEs)	Actual				Forecast		
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
In State	788	791	799	802	809	820	834
% Change	2.6%	0.3%	1.1%	0.3%	0.9%	1.4%	1.7%
Out of State	364	405	407	419	423	426	431
% Change	19.1%	11.0%	0.7%	2.9%	0.9%	0.9%	1.0%
Total	1,153	1,195	1,207	1,221	1,232	1,247	1,265
% Change	7.3%	3.7%	0.9%	1.2%	0.9%	1.2%	1.4%

Source: Actuals from student profile.

Medical School: Enrollment by Career



Medical Students (FTEs)	Actual				Forecast		
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Graduate	1,153	1,195	1,207	1,221	1,232	1,247	1,265
% Change	7.3%	3.7%	0.9%	1.2%	0.9%	1.2%	1.4%
Total	1,153	1,195	1,207	1,221	1,232	1,247	1,265
% Change	7.3%	3.7%	0.9%	1.2%	0.9%	1.2%	1.4%

Source: Actuals from student profile.

Medical School: Staffing

Employee FTEs	MEDICAL SCHOOL									
	Actual			Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Restricted										
Faculty	174	242	246	242	242	246	252	260	268	275
Staff	687	890	879	890	890	904	928	957	985	1,012
Total Restricted	861	1,132	1,125	1,132	1,132	1,150	1,180	1,217	1,253	1,287
<i>FTE Change (#)</i>		270	(7)	7	7	18	30	37	36	34
Unrestricted General University Ops										
Faculty	218	215	209	225	225	227	234	240	246	252
Staff	1,020	1,017	1,021	1,028	1,028	1,038	1,069	1,096	1,125	1,153
Total General University Ops	1,238	1,232	1,231	1,253	1,253	1,265	1,303	1,336	1,371	1,405
<i>FTE Change (#)</i>		(6)	(1)	22	22	12	38	33	35	34
Unrestricted Aux./Independent Business										
Faculty	18	13	11	13	13	13	13	13	13	13
Staff	1,327	1,278	1,310	1,278	1,278	1,279	1,280	1,282	1,283	1,284
Total Aux./Independent Business	1,345	1,291	1,321	1,291	1,291	1,292	1,293	1,295	1,296	1,297
<i>FTE Change (#)</i>		(54)	30	(30)	(30)	1	1	2	1	1
Total Faculty & Staff	3,444	3,655	3,676	3,975	3,676	4,009	4,084	4,162	4,240	4,314
		6.1%	0.6%	8.1%	0.0%	0.9%	1.9%	1.9%	1.9%	1.7%

Medical School: Staffing Ratios

MEDICAL SCHOOL

	Actual			Budget	Actual	Forecast				
	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
<i>Student - Faculty</i>										
Student (FTE)	1,070	1,074	1,153	1,203	1,195	1,207	1,221	1,232	1,247	1,265
Faculty (FTE)	410	470	466	480	480	486	499	513	527	540
Student-Faculty Ratio	2.6	2.3	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.3
<i>Staff - Faculty (All)</i>										
Staff (FTE)	3,034	3,185	3,210	3,196	3,196	3,221	3,277	3,335	3,393	3,449
Faculty (FTE)	410	470	466	480	480	486	499	513	527	540
Staff-Faculty Ratio	7.4	6.8	6.9	6.7	6.7	6.6	6.6	6.5	6.4	6.4
<i>Staff - Faculty (E&G)</i>										
Staff (FTE)	1,020	1,017	1,021	1,028	1,028	1,038	1,069	1,096	1,125	1,153
Faculty (FTE)	218	215	209	225	225	227	234	240	246	252
Staff-Faculty Ratio (E&G)	4.7	4.7	4.9	4.6	4.6	4.6	4.6	4.6	4.6	4.6

Medical School: Key Ratios

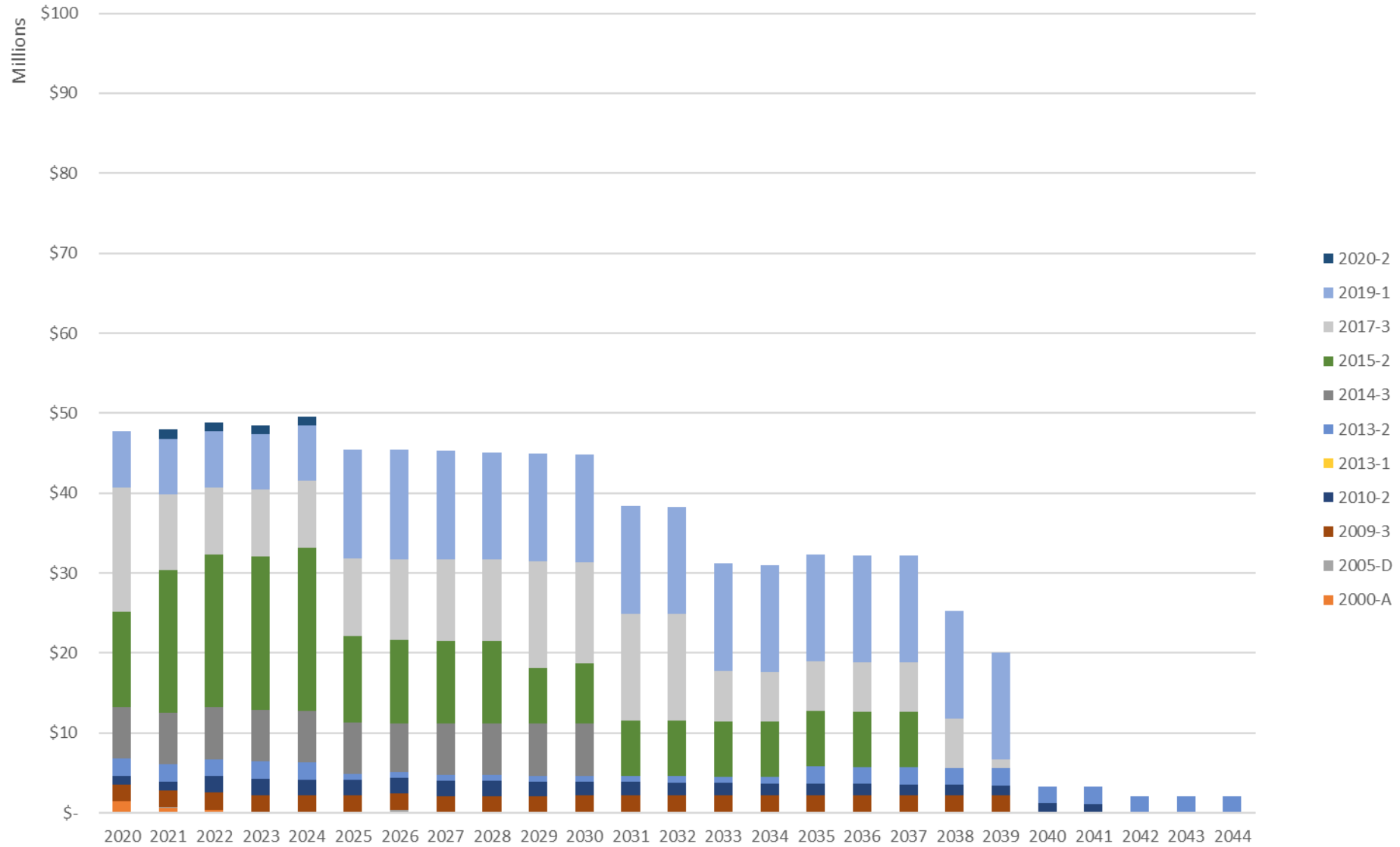
Key Ratio	MEDICAL SCHOOL										
	Actual					Budget	Forecast				
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Operating Margin (%)	-4.2%	-1.1%	3.2%	2.2%	3.5%	2.0%	2.3%	2.1%	2.0%	2.0%	2.0%
<i>Operating Margin (\$)</i>	<i>(32,614)</i>	<i>(10,599)</i>	<i>30,671</i>	<i>21,155</i>	<i>31,849</i>	<i>18,093</i>	<i>21,324</i>	<i>20,466</i>	<i>19,920</i>	<i>20,588</i>	<i>21,285</i>
Operating Cash Flow Margin (%)	8.4%	8.7%	12.8%	11.5%	13.7%	11.6%	11.6%	11.4%	11.6%	12.1%	11.8%
<i>Operating Cash Flow Margin (\$)</i>	<i>65,287</i>	<i>85,444</i>	<i>124,814</i>	<i>110,201</i>	<i>123,144</i>	<i>105,727</i>	<i>107,821</i>	<i>110,060</i>	<i>117,722</i>	<i>127,905</i>	<i>127,574</i>
Debt Service Burden (%)	6.2%	5.2%	6.0%	5.1%	5.5%	5.6%	4.7%	4.9%	5.2%	6.2%	5.7%
Annual Debt Service Coverage (x)	1.3	1.7	2.2	2.3	2.6	2.1	2.5	2.4	2.3	2.0	2.1
Financial Leverage (x)	0.38	0.34	0.42	0.64	0.72	0.74	0.79	0.75	0.64	0.68	0.73
Total Debt (\$ in thousands)	706,615	684,484	661,505	636,468	607,744	608,483	561,240	603,272	727,294	694,308	664,144
Spendable Cash & Investments to Op Expenses (x)	0.33	0.23	0.30	0.43	0.50	0.50	0.49	0.48	0.47	0.46	0.46
Enrollment	1,071	1,056	1,070	1,074	1,153	1,203	1,207	1,221	1,232	1,247	1,265
<i>Enrollment (% Change)</i>	<i>-3.0%</i>	<i>-1.4%</i>	<i>1.3%</i>	<i>0.4%</i>	<i>7.3%</i>	<i>4.4%</i>	<i>0.9%</i>	<i>1.2%</i>	<i>0.9%</i>	<i>1.2%</i>	<i>1.4%</i>

Includes new borrowing in FY22 & FY23

FY15 – FY19 Capital Review: Medical School Projects

Campus	Project	Adjusted Cost	Phase
Medical School	MBL South Coast GMP Renovations - Fall River	\$4,670,623	9A - Construction Complete
Medical School	Renovate and Expand BL3 Suite, 7th Fl	\$6,400,000	9A - Construction Complete
Medical School	REN - 4 Basic Research and Student Lab Wing Improvements Floors 1 - 4	\$16,000,000	9A - Construction Complete
Total		\$27,070,623	

UMMS Debt Service by Series



University

University: Revenue & Expenses

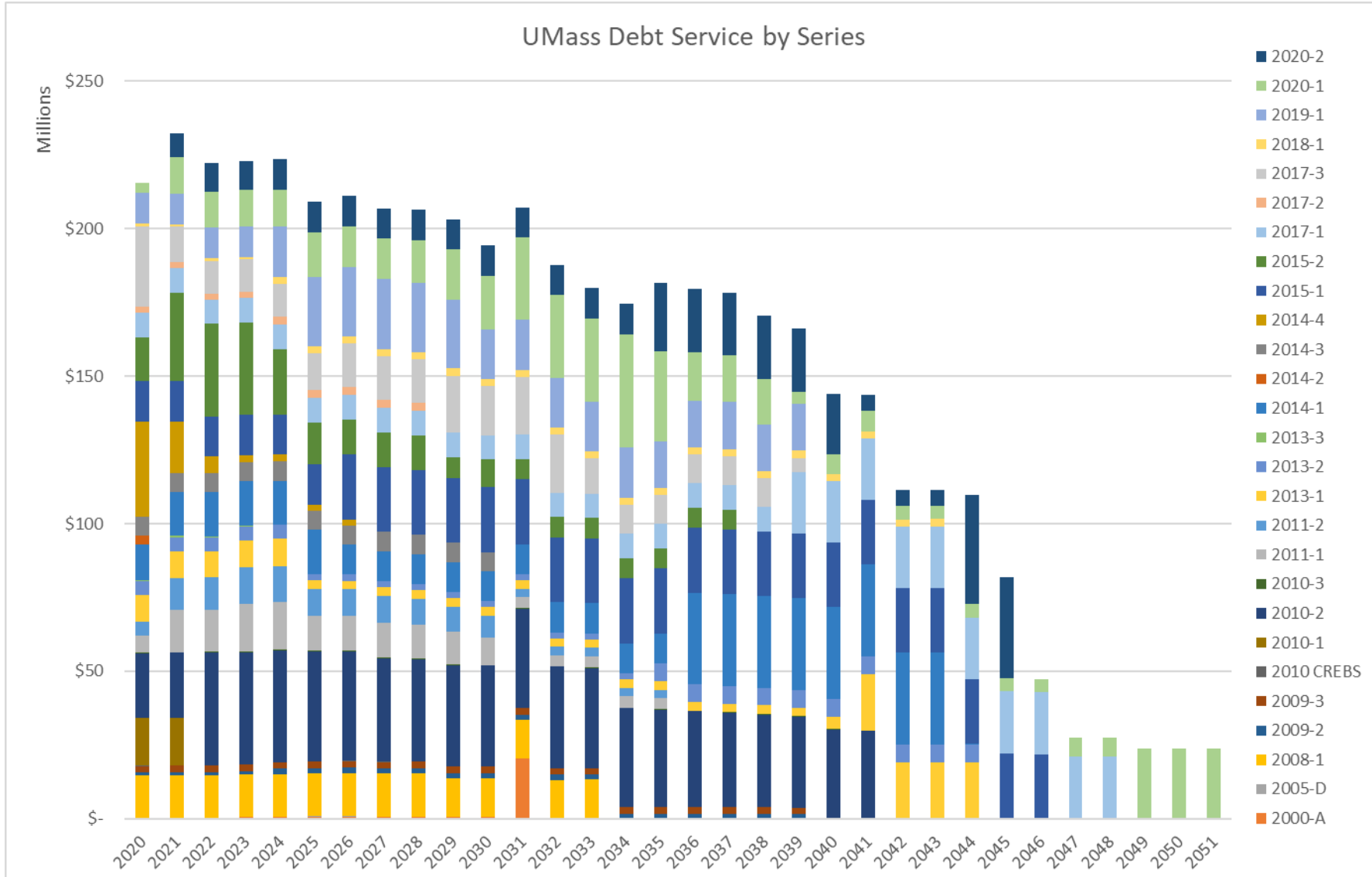
(\$ in Thousands)

UNIVERSITY

Revenues													% Change FY21-25	
	Actual					Budget	Q1 Projection	Forecast					Cumulative	Avg. Annual
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020 (B)	FY2020 (P)	FY2021	FY2022	FY2023	FY2024	FY2025		
Gross Tuition & Fees	987,384	1,070,841	1,136,540	1,185,826	1,223,734	1,263,315	1,262,676	1,307,381	1,361,103	1,413,455	1,465,157	1,518,067	16.1%	3.8%
Tuition Discounts	(222,164)	(244,025)	(288,708)	(311,947)	(328,830)	(342,748)	(347,148)	(360,961)	(376,071)	(387,908)	(400,549)	(413,262)	14.5%	3.4%
Discount Rate	22.5%	22.8%	25.4%	26.3%	26.9%	27.1%	27.5%	27.6%	27.6%	27.4%	27.3%	27.2%	-1.4%	-0.4%
Net Tuition & Fees	765,220	826,816	847,832	874,825	894,904	920,567	915,528	946,420	977,945	1,018,318	1,057,235	1,097,284	15.9%	3.8%
Grants	510,741	528,352	560,081	560,990	593,086	579,454	589,007	613,084	636,421	662,182	688,569	715,608	16.7%	3.9%
Sales & Service, Educational	25,601	27,500	28,910	30,591	34,984	29,350	30,278	30,912	31,624	32,356	33,107	33,881	9.6%	2.3%
Auxiliary Enterprises	362,193	383,281	400,822	416,733	441,795	456,696	459,456	471,807	489,646	505,098	520,315	535,895	13.6%	3.2%
Other Operating	136,954	307,286	233,717	311,119	222,076	236,776	233,070	238,197	254,518	271,021	287,598	285,151	19.7%	4.7%
State appropriations	621,200	669,748	720,817	751,894	780,222	805,515	801,974	829,659	857,827	886,723	915,316	945,042	13.9%	3.3%
Other NonOperating	147,801	162,741	195,089	197,142	231,504	199,096	211,578	217,880	224,548	230,165	236,408	241,025	10.6%	2.6%
Independent Business	312,077	330,259	371,618	274,555	266,509	301,131	301,131	297,454	303,877	310,498	318,321	326,854	9.9%	2.4%
Total Revenues	2,881,786	3,235,982	3,358,886	3,417,849	3,465,080	3,528,585	3,542,022	3,645,415	3,776,406	3,916,361	4,056,869	4,180,740	14.7%	3.5%
% Growth	-3.8%	12.3%	3.8%	1.8%	1.4%	1.8%	2.2%	3.3%	3.6%	3.7%	3.6%	3.1%		
Expenses													% Change FY21-25	
	Actual					Budget	Q1 Projection	Forecast					Cumulative	Avg. Annual
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025		
Salaries & Fringe	1,659,054	1,788,018	1,847,346	1,901,896	1,970,869	2,011,769	2,018,601	2,109,281	2,184,193	2,263,414	2,345,706	2,423,434	14.9%	3.5%
Non-personnel	852,900	1,067,226	1,018,600	1,088,019	943,685	1,013,968	1,015,870	990,945	1,024,201	1,061,045	1,099,025	1,126,143	13.6%	3.3%
Scholarships and fellowships	49,300	44,645	47,706	50,402	49,507	52,996	53,990	55,088	56,348	57,579	58,896	60,207	9.3%	2.2%
Depreciation	221,043	240,864	249,669	261,417	276,638	286,093	287,345	295,573	306,317	318,498	332,277	339,966	15.0%	3.6%
Interest	100,332	105,276	110,069	115,851	116,217	119,112	118,876	129,992	131,071	131,014	134,017	142,197	9.4%	2.3%
Removing GASB	57	(34,466)	(36,040)	(81,325)	-	-	-	-	-	-	-	-	0.0%	-
Total Expenses	2,882,686	3,211,563	3,237,351	3,336,260	3,356,916	3,483,937	3,494,682	3,580,879	3,702,131	3,831,550	3,969,922	4,091,946	14.3%	3.4%
% Growth	-0.6%	11.4%	0.8%	3.1%	0.6%	3.8%	4.1%	2.8%	3.4%	3.5%	3.6%	3.1%		
Operating Margin													% Change FY21-25	
	Actual					Budget	Q1 Projection	Forecast					Cumulative	Avg. Annual
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025		
UMass OM Calc Revenues	2,885,171	3,252,580	3,326,336	3,416,188	3,449,697	3,522,225	3,536,483	3,641,663	3,773,228	3,912,787	4,052,860	4,176,162	14.7%	3.5%
Total Expenses	2,882,686	3,211,563	3,237,351	3,336,260	3,356,916	3,483,937	3,494,682	3,580,879	3,702,131	3,831,550	3,969,922	4,091,946	14.3%	3.4%
Surplus / (Deficit)	2,485	41,017	88,985	79,928	92,781	38,288	41,801	60,783	71,097	81,237	82,938	84,216	38.6%	8.7%
UMass OM Calc	0.1%	1.3%	2.7%	2.3%	2.7%	1.1%	1.2%	1.7%	1.9%	2.1%	2.0%	2.0%		

University: Key Ratios

Key Ratio	UNIVERSITY										
	Actual					Budget		Forecast			
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Operating Margin (%)	0.1%	1.3%	2.7%	2.3%	2.7%	1.1%	1.7%	1.9%	2.1%	2.0%	2.0%
Operating Margin (\$)	2,485	41,017	88,985	79,928	92,781	38,288	60,783	71,097	81,237	82,938	84,216
Operating Cash Flow Margin (%)	11.8%	12.0%	13.7%	13.3%	14.0%	14.8%	15.3%	15.4%	15.5%	15.5%	15.6%
Operating Cash Flow Margin (\$)	336,418	385,596	447,796	444,352	475,586	526,078	560,354	582,963	609,392	633,383	655,307
Debt Service Burden (%)	6.6%	6.2%	6.6%	6.5%	6.6%	6.8%	6.9%	6.5%	6.4%	6.5%	6.2%
Debt Service Coverage (x)	1.8	1.9	2.1	2.1	2.1	2.2	2.3	2.4	2.5	2.5	2.6
Financial Leverage (x)	0.42	0.39	0.41	0.47	0.48	0.39	0.50	0.57	0.57	0.57	0.61
Total Debt (\$ in thousands)	2,954,159	2,860,910	3,055,930	3,065,672	3,308,237	3,743,451	3,254,351	3,193,751	3,229,350	3,354,333	3,238,527
Spendable Cash & Investments to Op Expenses (x)	0.43	0.35	0.40	0.44	0.48	0.42	0.46	0.50	0.49	0.49	0.49
Enrollment	62,302	63,334	63,978	64,530	65,348	65,816	66,524	67,206	67,884	68,457	68,978
Enrollment (% Change)	1.6%	1.7%	1.0%	0.9%	1.3%	0.7%	1.1%	1.0%	1.0%	0.8%	0.8%



#10. Appendices

- A. Legislative Requirement
- B. Tuition & Fees
- C. Annual Financial Report
- D. Credit Ratings
- E. UMass Accountability and Transparency



University of Massachusetts

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

Appendix A: Legislative Requirements

Legislative Requirement

Excerpt from line item 7100-0200 of Chapter 41 of the Acts of 2019:

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 January 15, 2020, 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 2020 through 2025, including anticipated cost savings initiatives and efforts to reduce student tuition and fees; and (ii) a comprehensive report on spending over the previous five 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...*

Table of Legislative Requirements

Requirement	Page Numbers
<i>(i)</i> 5-Year Financial Forecast	59-137
<i>(i)</i> Cost savings initiatives and efforts to reduce tuition and fees	139-178
<i>(ii, a)</i> Personnel costs, delineated by staff type and type of pay, including, but not limited to base pay and bonus pay	82-93
<i>(ii, b)</i> Number of full-time equivalent employees by staff type	92-93
<i>(ii, c)</i> Non-instructional administrative costs	80-81
<i>(ii, d)</i> Costs related to asset management and acquisition	101-120
<i>(ii, e)</i> Annual enrollment growth	31-44
<i>(ii, f)</i> Annual tuition and fee growth	Appendix B
<i>(ii, g)</i> Fee structure	Appendix B
<i>(ii, h)</i> Expenditures on direct student financial aid	94-100
<i>(ii, i)</i> Average financial aid award per financial aid recipient	94-100

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

Appendix B: Tuition & Fees

The data in this section comes from the University's FY20 Budget presentation to the Board and was presented to the Board of Trustees in on August 2nd

In-State Tuition Increases: New England Public Universities

	Fall 2018	Fall 2019	% Increase
University of Connecticut	15,730	17,226	9.5%
University of Rhode Island	14,138	14,566	3.0%
University of Vermont	18,276	18,802	2.9%
University of Maine	11,170	11,449	2.5%
University of Massachusetts	14,363	14,722	2.5%
University of New Hampshire	18,499	18,879	2.1%
<i>Average</i>			3.7%

In-State Tuition Increases: Massachusetts State Universities

	Fall 2018	Fall 2019*	% Increase
Westfield State	10,176	10,821	6.3%
Framingham State	10,520	11,100	5.5%
Bridgewater State	10,438	10,832	3.8%
Massachusetts College of Art & Design	13,200	13,688	3.7%
Salem State	10,885	11,285	3.7%
Massachusetts Maritime Academy	9,728	10,020	3.0%
Massachusetts College of Liberal Arts	10,560	10,824	2.5%
Fitchburg State	10,355	10,504	1.4%
Worcester State	10,161	10,162	0.0%
Average			3.3%

**Fall 2019 estimated based on internal research; official publication not available.*

State Universities: FY17 to FY18 weighted increase	6%
Community Colleges: FY17 to FY18 weighted increase	6%
<i>Source: DHE Data Center</i>	

In-State Tuition Increases: Sample Campus Peers

	Fall 2018	Fall 2019	% Increase
Amherst Peers:			
University of Connecticut	15,730	17,226	9.5%
Boston College	56,001	58,485	4.4%
Syracuse University	51,853	53,849	3.8%
Boston University	53,948	55,892	3.6%
Stony Brook University	9,588	9,912	3.4%
Amherst	15,406	15,791	2.5%
Ohio State University	10,728	10,880	1.4%
University of Virginia	16,520	16,640	0.7%
Average			3.7%

	Fall 2018	Fall 2019	% Increase
Boston Peers:			
University of Illinois at Chicago	13,808	14,870	7.7%
University of Nevada-Reno	8,064	8,334	3.3%
Boston	13,841	14,187	2.5%
University of Maryland Baltimore County	11,778	12,028	2.1%
Average			3.9%

	Fall 2018	Fall 2019	% Increase
Dartmouth Peers:			
University of North Dakota	8,695	9,367	7.7%
University of South Dakota	9,060	9,331	3.0%
SUNY University at Binghamton	9,808	10,096	2.9%
Dartmouth	13,496	13,833	2.5%
Average			4.0%

	Fall 2018	Fall 2019	% Increase
Lowell Peers:			
University of Rhode Island	12,248	12,590	2.8%
University of New Hampshire	15,140	15,520	2.5%
Lowell	14,710	15,078	2.5%
University of Maryland Baltimore County	11,778	12,028	2.1%
Average			2.5%

Tuition & Fee Increases

UMass tuition and fees, on average, increase at a similar rate to other universities.

	Higher Education Price Index (HEPI)	Consumer Price Index (CPI)	Tuition	\$ Impact
FY14	3.0%	1.7%	0.0%	-
FY15	2.1%	-0.1%	0.0%	-
FY16	1.8%	1.1%	5.0%	563
FY17	3.3%	2.2%	6.0%	756
FY18	2.8%	2.5%	3.0%	416
FY19	N/A	N/A	2.5%	360
FY20	N/A	N/A	2.5%	360
Average	2.6%	1.5%	2.7%	351

(1) FY14-16 includes Tuition & Curriculum Fee;

FY17-20 includes Tuition.

Tuition: Undergraduate

Undergraduate Tuition: In State

	FY19	FY20	\$ Change	% Change
Amherst	\$15,406	\$15,791	\$385	2.5%
Boston	\$13,840	\$14,187	\$347	2.5%
Dartmouth	\$13,496	\$13,833	\$337	2.5%
Lowell	\$14,710	\$15,078	\$368	2.5%

Undergraduate Tuition: Out of State

	FY19	FY20	\$ Change	% Change
Amherst	\$34,089	\$35,112	\$1,023	3.0%
Boston	\$33,640	\$34,649	\$1,009	3.0%
Dartmouth	\$28,716	\$29,578	\$861	3.0%
Lowell	\$32,357	\$33,004	\$647	2.0%

Mandatory Fees: Undergraduate

Mandatory Fees

		FY19	FY20	\$ Change	% Change
Amherst	Technology Fee	\$250	\$350	\$100	40.0%
	Student Activities Fee	\$231	\$248	\$17	7.4%
	Total Mandatory Fees	\$481	\$598	\$117	24.3%
Boston	Technology Fee	\$250	\$350	\$100	40.0%
	Student Activities Fee	\$76	\$116	\$40	52.6%
	Total Mandatory Fees	\$326	\$466	\$140	42.9%
Dartmouth	Technology Fee	\$250	\$350	\$100	40.0%
	Student Activities Fee	\$175	\$175	\$0	0.0%
	Total Mandatory Fees	\$425	\$525	\$100	23.5%
Lowell	Technology Fee	\$250	\$350	\$100	40.0%
	Student Activities Fee	\$220	\$220	\$0	0.0%
	Total Mandatory Fees	\$470	\$570	\$100	21.3%

- Technology Fee:
 - Increase to improve wireless connectivity, classroom technologies, expanded online storage, library subscriptions, eBooks and materials, software related to eLearning and other technology initiatives.

- Student Activity Fee:
 - Amherst - Student Activities Fee increase as voted on by the Student Government Association.
 - Boston - Student Activities Fee increase to further reduce T passes from an 11% discount to a 50% discount; voted by the students.

Mandatory Technology Fee: Background

- The proposal in the FY20 budget will be the first increase in 4 years.
- With tuition retention implemented in FY17, the technology was left as a stand-alone mandatory fee in anticipation of increases that may vary from the traditional tuition increases.
- The fee was implemented consistently at each campus.
- Revenue generated supplements other general fund resources invested in IT; the fee alone does not cover IT related costs.

Tuition: Graduate

Graduate Tuition: In State

	FY19	FY20	\$ Change	% Change
Amherst	\$14,348	\$14,778	\$430	3.0%
Boston	\$17,896	\$18,433	\$537	3.0%
Dartmouth	\$15,912	\$16,390	\$477	3.0%
Lowell	\$14,590	\$14,590	\$0	0.0%

Graduate Tuition: Out of State

	FY19	FY20	\$ Change	% Change
Amherst	\$31,449	\$32,392	\$943	3.0%
Boston	\$34,932	\$35,980	\$1,048	3.0%
Dartmouth	\$28,716	\$29,578	\$861	3.0%
Lowell	\$26,370	\$26,370	\$0	0.0%

Room & Board

	FY19	FY20	\$Change	% Change
Amherst	\$12,626	\$13,004	\$378	3.0%
Dartmouth	\$13,299	\$13,870	\$571	4.3%
Lowell	\$12,748	\$13,060	\$312	2.4%

Room rates based on standard shared room

- Amherst: Across the board increases to housing and dining rates
- Dartmouth: Average housing rate increase of 5%; average dining rate increase of 3%
- Lowell: Average housing and dining increase of 2.4%

	FY19	FY20	\$Change	% Change
Boston - Room	\$9,468	\$9,720	\$252	2.7%
Boston - Dining	\$5,390	\$5,550	\$160	3.0%

Room rates based on standard shared room

- 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.

UNIVERSITY OF MASSACHUSETTS, AMHERST

STUDENT TUITION & FEE SCHEDULES

FY 2020 TUITION & MANDATORY FEES

FY 2020 NON-MANDATORY FEES

FY2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY2020 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

FY 2020 TUITION & MANDATORY FEES

SUMMARY TABLE

	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY19-FY20	% Change FY19-FY20
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (resident)	\$15,030	\$15,406	\$15,791	\$385	2.5%
Undergraduate (regional)	\$26,159	\$27,152	\$28,175	\$1,023	3.8%
Undergraduate (non-resident)	\$33,096	\$34,089	\$35,112	\$1,023	3.0%
MANDATORY FEES					
Shared Infrastructure Technology Fee	\$250	\$250	\$350	\$100	40.0%
Student Activities	\$131	\$231	\$248	\$17	7.4%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (resident)	\$15,411	\$15,887	\$16,389	\$502	3.2%
Undergraduate (regional)	\$26,540	\$27,633	\$28,773	\$1,140	4.1%
Undergraduate (non-resident)	\$33,477	\$34,570	\$35,710	\$1,140	3.3%
RESIDENTS ONLY					
Rent and Residential Telecommunications	\$6,862	\$7,068	\$7,280	\$212	3.0%
Board	<u>\$5,396</u>	<u>\$5,558</u>	<u>\$5,724</u>	<u>\$166</u>	<u>3.0%</u>
TOTAL RENT, TELCOM, BOARD	\$12,258	\$12,626	\$13,004	\$378	3.0%
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (resident)	\$27,669	\$28,513	\$29,393	\$880	3.1%
Undergraduate (regional)	\$38,798	\$40,259	\$41,777	\$1,518	3.8%
Undergraduate (non-resident)	\$45,735	\$47,196	\$48,714	\$1,518	3.2%
<u>GRADUATE</u>					
TUITION					
Graduate (resident)	\$13,930	\$14,348	\$14,778	\$430	3.0%
Graduate (regional)	\$25,216	\$26,132	\$27,075	\$943	3.6%
Graduate (non-resident)	\$30,533	\$31,449	\$32,392	\$943	3.0%
MANDATORY FEES					
Graduate Service Fee	\$1,270	\$1,270	\$1,270	\$0	0.0%
Graduate Health Fee	\$749	\$768	\$787	\$19	2.5%
Graduate Student Senate Fee	\$138	\$138	\$138	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Graduate (resident)	\$16,087	\$16,524	\$16,973	\$449	2.7%
Graduate (regional)	\$27,373	\$28,308	\$29,270	\$962	3.4%
Graduate (non-resident)	\$32,690	\$33,625	\$34,587	\$962	2.9%

FY2015 - FY2020 NON-MANDATORY STUDENT FEES

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY19-FY20	% Change FY19-FY20
Commonwealth College Welcome Weekend Orientation (in AIA Fund)	\$90.00	\$90.00	\$90.00	\$90.00	\$90.00	\$90.00	\$0.00	0.0%
Campus Fee Fund :								
Continuing Ed Campus Fee / per credit	\$196.00	\$208.00	\$216.00	\$221.00	\$221.00	\$226.00	\$5.00	2.3%
Undergraduate Entering (moved to New Student Enrollment Fee in FY17)	\$185.00	\$185.00	\$0.00	\$0.00	\$0.00		0.0%	#DIV/0!
Stockbridge Entering (moved to New Student Enrollment Fee in FY17)	\$77.00	\$77.00	\$0.00	\$0.00	\$0.00		0.0%	#DIV/0!
Graduate Entering	\$357.00	\$357.00	\$357.00	\$357.00	\$507.00	\$507.00	\$0.00	0.0%
Undergraduate Senior Status	\$110.00	\$110.00	\$110.00	\$110.00	\$110.00	\$110.00	\$0.00	0.0%
Commonwealth College Fee (annual)	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$600.00	\$0.00	0.0%
New Student Enrollment Fee:								
Undergraduate	N/A	N/A	\$485.00	\$485.00	\$485.00	\$485.00	0.0%	0.0%
Undergraduate - Stockbridge	N/A	N/A	\$377.00	\$377.00	\$377.00	\$377.00	0.0%	0.0%
Undergraduate - Transfer	N/A	N/A	\$385.00	\$385.00	\$385.00	\$385.00	0.0%	0.0%
Career Services:								
Credentials Packet (Undergraduate)	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$0.00	0.0%
Credentials Packet (Graduate)	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$0.00	0.0%
Communication Network Services (formerly Telecommunications):								
Family Housing Tenants (per month)	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$0.00	0.0%
Summer Telephone Fee (per month)	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$0.00	0.0%
Summer CE Telephone Fee (per session)	\$40.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$0.00	0.0%
Computer Science Computing Facility:								
Computer Account for CE Courses (per semester)	\$45.00	\$45.00	\$45.00	\$45.00	\$45.00	\$45.00	\$0.00	0.0%
Domestic Exchange:								
Outgoing Application	\$230.00	\$230.00	\$230.00	\$230.00	\$230.00	\$230.00	\$0.00	0.0%
Incoming Orientation	\$110.00	\$110.00	\$110.00	\$150.00	\$150.00	\$150.00	\$0.00	0.0%
Post Conference Application	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00	\$0.00	0.0%
Engineering Fee (annual)								
Undergraduate:								
12+ Credits	\$320.00	\$830.00	\$830.00	\$830.00	\$830.00	\$830.00	\$0.00	0.0%
6-11 credits	\$220.00	\$570.00	\$570.00	\$570.00	\$570.00	\$570.00	\$0.00	0.0%
1-5 Credits	\$120.00	\$310.00	\$310.00	\$310.00	\$310.00	\$310.00	\$0.00	0.0%
Graduate:								
5+ Credits	\$320.00	\$830.00	\$830.00	\$830.00	\$830.00	\$830.00	\$0.00	0.0%
1-4 Credits	\$170.00	\$440.00	\$440.00	\$440.00	\$440.00	\$440.00	\$0.00	0.0%
Graduate Registrar Fees:								
Continuous Enrollment Fee (was Program Fee)	\$275.00	\$275.00	\$275.00	\$275.00	\$275.00	\$275.00	\$0.00	0.0%
Readmission Fee	\$125.00	\$125.00	\$125.00	\$125.00	\$125.00	\$125.00	\$0.00	0.0%
Doctoral Hoods	\$65.00	\$65.00	\$65.00	\$65.00	\$65.00	\$65.00	\$0.00	0.0%
Graduate Student Senate								
Graduate Student Senate Fee (Continuous Enrollment Students)	\$60.00	\$60.00	\$64.50	\$69.00	\$69.00	\$69.00	\$0.00	0.0%
Horseback Riding Program (per semester)	\$800.00	\$800.00	\$880.00	\$880.00	\$880.00	Program Eliminated	N/A	N/A

FY2015 - FY2020 NON-MANDATORY STUDENT FEES

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY19-FY20	% Change FY19-FY20
Humanities & Fine Arts Course Fees								
Art Studio Course Fee (PER COURSE)		\$0.00	\$0.00	\$0 - \$170	\$0 - \$170	Fee Eliminated	N/A	N/A
Music Studio Lessons Course Fee: Majors (PER COURSE)		\$0.00	\$0.00	\$425.00	\$425.00	\$425.00	\$0.00	0.0%
Music Studio Lessons Course Fee: Non-Majors (PER COURSE)		\$0.00	\$0.00	\$325.00	\$325.00	Fee Eliminated	N/A	N/A
International Programs:								
Registration Fee (UMass & Non-UMass programs) / semester	\$750.00	\$750.00	\$750.00	\$850.00	\$860.00	\$875.00	\$15.00	1.7%
Application Fee	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$0.00	0.0%
Range of Exchanges (annual)	\$100-\$32,000	\$100-\$32,000	\$100-\$32,000	\$100-\$32,000	\$100-\$32,000	\$100-\$32,000	\$0.00	0.0%
American Culture & Language Program Fee	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$95.00	\$20.00	26.7%
American Culture & Language Program Fee (incl. TOEFL Test)	\$150.00	\$150.00	\$150.00	\$150.00	\$150.00	\$95.00	(\$55.00)	-36.7%
Trip & Excursion Fee for International Students	\$5 - \$100	\$5 - \$100	\$5 - \$100	\$5 - \$100	\$5 - \$100	\$5 - \$100	\$0.00	0.0%
Student Orientation Fee - Fall	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$0.00	0.0%
Student Orientation Fee - Spring	N/A	\$50.00	\$50.00	\$50.00	\$50.00	\$50.00	\$0.00	0.0%
Student Orientation Fee with Optional Room & Board	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$0.00	0.0%
Special Programs Fee	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$0.00	0.0%
Summer Registration Fee	\$250.00	\$250.00	\$250.00	\$350.00	\$355.00	\$365.00	\$10.00	2.8%
Student Services Fee (per semester) *	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$200.00	\$100.00	100.0%
Isenberg School of Management Fee (annual)								
Undergraduate								
12+ Credits	N/A	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$0.00	0.0%
6-11 credits	N/A	\$690.00	\$690.00	\$690.00	\$690.00	\$690.00	\$0.00	0.0%
1-5 Credits	N/A	\$375.00	\$375.00	\$375.00	\$375.00	\$375.00	\$0.00	0.0%
College of Information and Computer Science Fee (annual)								
Undergraduate								
12+ Credits						\$850.00	New Fee	N/A
6-11 credits						\$580.00	New Fee	N/A
1-5 Credits						\$320.00	New Fee	N/A
Lab Fees								
Undergraduate Course Lab Fee	N/A	\$95.00	\$95.00	\$95.00	\$95.00	\$95.00	\$0.00	0.0%
New Student Orientation								
Freshmen (moved to New Student Enrollment Fee in FY17)	\$300.00	\$300.00	\$0.00	\$0.00	\$0.00		N/A	N/A
Transfers (moved to New Student Enrollment Fee in FY17)	\$200.00	\$200.00	\$0.00	\$0.00	\$0.00		N/A	N/A
Registrar Services								
Credit by Exam Fee				\$5.00	\$5.00	\$100.00	\$95.00	1900.0%
Readmission Fee	\$35.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$0.00	0.0%
College of Nursing Undergraduate Course Fee (per credit)	N/A	N/A	\$75.00	\$75.00	\$75.00	\$75.00	\$0.00	0.0%
Student Health								
BASICS I (first offense)	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$0.00	0.0%
BASICS II (second offense)	\$175.00	\$175.00	\$175.00	\$175.00	\$175.00	\$175.00	\$0.00	0.0%
Student Health Benefit Plan								
Undergraduate Student Per Semester Plan (6 months)	\$1,110.00	\$1,055.00	\$705.00	\$772.50	\$772.50	TBD	\$0.00	
Graduate Student Per Semester Plan (6 months)	\$1,377.50	\$1,530.00	\$1,355.00	\$1,485.00	\$1,485.00	TBD	\$0.00	
Family Per Semester Plan (6 months)	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	\$3,000.00	TBD	\$0.00	

FY2015 - FY2020 NON-MANDATORY STUDENT FEES

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY19-FY20	% Change FY19-FY20
UCard								
U Card Replacement (Lost/Stolen)	\$25.00	\$25.00	\$25.00	\$30.00	\$30.00	\$30.00	\$0.00	0.0%
U Card Replacement (Damaged)	\$10.00	\$10.00	\$10.00	\$15.00	\$15.00	\$15.00	\$0.00	0.0%
UWW Advising/Assessment:								
Enrollment Fee	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$0.00	0.0%
Advising/semester	\$150.00	\$150.00	\$150.00	\$150.00	\$150.00	\$150.00	\$0.00	0.0%
Prior Learning (1-15 Credits)	\$800.00	\$800.00	\$800.00	\$800.00	\$800.00	\$800.00	\$0.00	0.0%
Prior Learning (16-18 Credits)	\$1,100.00	\$1,100.00	\$1,100.00	\$1,100.00	\$1,100.00	\$1,100.00	\$0.00	0.0%
Prior Learning (19-21 Credits)	\$1,400.00	\$1,400.00	\$1,400.00	\$1,400.00	\$1,400.00	\$1,400.00	\$0.00	0.0%
Prior Learning (22-25 Credits)	\$1,700.00	\$1,700.00	\$1,700.00	\$1,700.00	\$1,700.00	\$1,700.00	\$0.00	0.0%
Prior Learning (26-29 Credits)	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$2,000.00	\$0.00	0.0%
Prior Learning (30+ Credits)	\$2,200.00	\$2,200.00	\$2,200.00	\$2,200.00	\$2,200.00	\$2,200.00	\$0.00	0.0%
Special Transcript Fee	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$75.00	\$0.00	0.0%
Vet Tech Program Majors Fee (annual)				\$0.00	\$500.00	\$500.00	\$0.00	0.0%
Vet Tech Senior Seminar Registration Fee				\$0.00	\$0.00	\$51.00	New Fee	N/A
OTHER FEES								
Shared Infrastructure Technology Fee							N/A	
Student Activities (Undergraduate Students)							\$125	
Graduate Student Senate (Graduate Students)							\$120	

*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

FY2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY19-FY20	% Change FY19-FY20
Auxiliary Services								
Basic Plan (224 meals per semester/annual)	\$4,820.00	\$5,061.00	\$5,238.00	\$5,396.00	\$5,558.00	\$5,724.00	\$166.00	3.0%
DC Unlimited Plan, no Dining \$, no Guest (annual rate)				\$0.00	\$0.00	\$5,824.00	New Fee	N/A
Unlimited 250 Plan (annual rate)	\$5,320.00	\$5,586.00	\$5,782.00	\$5,956.00	\$6,134.00	\$6,318.00	\$184.00	3.0%
Platinum Plan (200 meals per semester)/annual	\$4,704.00	\$4,940.00	\$5,112.00	\$5,266.00	\$5,424.00	\$5,586.00	\$162.00	3.0%
Gold Plan (100 meals per semester) / annual	\$2,404.00	\$2,690.00	\$2,784.00	\$2,868.00	\$2,954.00	\$3,042.00	\$88.00	3.0%
Commuter Plan (65 meals per semester) / annual	\$1,484.00	\$1,560.00	\$1,614.00	\$1,662.00	\$1,712.00	\$1,764.00	\$52.00	3.0%
Commuter Plan (155 meals per semester) / annual	\$3,250.00	\$3,414.00	\$3,534.00	\$3,640.00	\$3,750.00	\$3,862.00	\$112.00	3.0%
Commuter On the Go (\$800 Dining \$ plus 5 Bonus DC meals per semester)/annual	\$1,600.00	\$1,600.00	\$1,600.00	\$1,600.00	\$1,600.00	\$1,600.00	\$0.00	0.0%
Unlimited 500 (unlimited DC access, \$500 dining dollars & 15 guest meals/semester)	\$5,670.00	\$5,954.00	\$6,162.00	\$6,348.00	\$6,538.00	\$6,734.00	\$196.00	3.0%
Summer/Winter YCMP (20 meals) *	\$210.00	\$215.00	\$218.00	\$220.00	\$220.00	\$220.00	\$0.00	0.0%
Kosher Surcharge	\$400.00	\$400.00	\$400.00	\$400.00	\$400.00	\$400.00	\$0.00	0.0%
Meal Plan Change Administrative Fee	\$250.00	\$250.00	\$250.00	\$250.00	\$250.00	\$250.00	\$0.00	0.0%
Early Arrival Meal Plan	\$52.50	\$53.00	\$55.00	\$55.00	\$55.00	\$55.00	\$0.00	0.0%
Continuing Education								
Recording Fee, CEU Credits	\$10.00	\$10.00	\$10.00	\$10.00	\$30.00	\$30.00	\$0.00	0.0%
Readmission Fee	\$35.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$0.00	0.0%
Credit/Recording Fee	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$0.00	0.0%
Registration (credit)	\$45.00	\$45.00	\$45.00	\$47.00	\$47.00	\$47.00	\$0.00	0.0%
Registration (non-credit)	\$6.00	\$6.00	\$6.00	\$6.00	\$25.00	\$25.00	\$0.00	0.0%
Entering Fee (CPE matriculated UG students)	\$135.00	\$135.00	\$135.00	\$135.00	\$135.00	\$135.00	\$0.00	0.0%
Matriculating Student On-Site (per credit)								
Undergraduate In-State	\$371.00	\$371.00	\$371.00	\$390.00	\$402.00	\$414.00	\$12.00	3.0%
Undergraduate Out-of-State	\$658.00	\$658.00	\$658.00	\$691.00	\$712.00	\$733.00	\$21.00	2.9%
Graduate In-State	\$438.00	\$438.00	\$438.00	\$460.00	\$474.00	\$488.00	\$14.00	3.0%
Graduate Out-of-State	\$750.00	\$750.00	\$750.00	\$788.00	\$812.00	\$836.00	\$24.00	3.0%
Non-Matriculating Student On-Site (per credit)								
Undergraduate	\$371.00	\$371.00	\$371.00	\$390.00	\$402.00	\$414.00	\$12.00	3.0%
Graduate	\$438.00	\$438.00	\$438.00	\$460.00	\$474.00	\$488.00	\$14.00	3.0%
On-Line (per credit)								
Undergraduate	\$371.00	\$371.00	\$371.00	\$390.00	\$402.00	\$414.00	\$12.00	3.0%
Graduate	\$438.00	\$438.00	\$438.00	\$460.00	\$474.00	\$488.00	\$14.00	3.0%
Off Campus Special Programs (per credit) **	\$220-\$900	\$100-\$900	\$100-\$900	\$100-\$1,500	\$100-\$1,900	\$100-\$1,900	\$0.00	0.0%
Non-Matriculated Students Transcript Fee ****	\$6.00	\$6.00	\$6.00	\$6.00	\$6.00	\$6.00	\$0.00	0.0%
CPE Nursing 2nd Bachelor Orientation Fee				\$100.00	\$500.00	\$500.00	\$0.00	0.0%
Thesis, Dissertation, Special Programs (per credit)	\$195.00	\$195.00	\$195.00	\$195.00	\$195.00	\$195.00	\$0.00	0.0%
Bad Check Charge	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$0.00	Fee Eliminated	N/A
Late Course Add Fee	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$0.00	0.0%

FY2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY19-FY20	% Change FY19-FY20
Weekly	\$40.00	\$48.00	\$55.00					
Monthly	\$140.00	\$160.00	\$180.00					
Metered Parking (per hour)	\$1.00	\$1.50	\$1.50					
Garage (per hour)	\$1.50	\$1.75	\$1.75					
Night Parking Permit Fee (annual)	N/A	\$36.00	\$36.00					
Night Parking Daily Fee	N/A	\$3.00	\$3.00					
Citation Late Fee	\$10.00	\$10.00	\$10.00					
Violation Fines	\$20 - \$100	\$20 - \$100	\$20 - \$150					
Parking Payment Administrative Fee	N/A	\$25.00	\$25.00					
Lost or Stolen Permit	\$5.00	\$10.00	\$10.00					
Mass RMV Hold	\$25.00	\$30.00	\$30.00					
Portable Permits	\$10.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$0.00	0.0%
Residence Halls & Family Housing:								
Family Housing (rents are per month)								
<u>North Village:</u>								
1 Bedroom	\$775.00	\$791.00	\$815.00	\$839.00	\$864.00	\$890.00	\$26.00	3.0%
1 Bedroom Handicapped	\$775.00	\$791.00	\$815.00	\$839.00	\$864.00	\$890.00	\$26.00	3.0%
1 Bedroom IPO (furnished)				\$869.00	\$895.00	\$920.00	\$25.00	2.8%
1 Bedroom Handicapped (tenant not handicapped)	\$795.00	\$811.00	\$835.00	\$859.00	\$885.00	\$910.00	\$25.00	2.8%
2 Bedroom	\$906.00	\$924.00	\$952.00	\$981.00	\$1,010.00	\$1,040.00	\$30.00	3.0%
2 Bedroom Handicapped	\$906.00	\$924.00	\$952.00	\$981.00	\$1,010.00	\$1,040.00	\$30.00	3.0%
2 Bedroom Handicapped (tenant not handicapped)	\$926.00	\$944.00	\$972.00	\$1,001.00	\$1,031.00	\$1,060.00	\$29.00	2.8%
<u>Residence Halls</u>								
Standard Shared Room (Room)	\$5,895.00	\$6,190.00	\$6,407.00	\$6,599.00	\$6,797.00	\$7,001.00	\$204.00	3.0%
Sylvan Suite Singles	\$7,127.00	\$7,484.00	\$7,745.00	\$7,978.00	\$8,220.00	\$8,465.00	\$245.00	3.0%
Sylvan Suites Shared	\$5,359.00	\$5,627.00	\$5,825.00	\$5,999.00	\$6,180.00	\$6,365.00	\$185.00	3.0%
North Apartments Single Room (9 months)	\$10,806.00	\$11,346.00	\$11,743.00	\$12,095.00	\$12,460.00	\$12,834.00	\$374.00	3.0%
Commonwealth Honors College Residential Complex								
Single Apartments	\$10,906.00	\$11,446.00	\$11,843.00	\$12,095.00	\$12,460.00	\$12,834.00	\$374.00	3.0%
Single Suites	\$9,503.00	\$9,934.00	\$10,252.00	\$10,532.00	\$10,850.00	\$11,173.00	\$323.00	3.0%
Shared Apartments	\$8,200.00	\$8,606.00	\$8,905.00	\$9,094.00	\$9,365.00	\$9,650.00	\$285.00	3.0%
Single Rooms	\$8,638.00	\$9,031.00	\$9,319.00	\$9,575.00	\$9,865.00	\$10,157.00	\$292.00	3.0%
Suite Shared	\$7,145.00	\$7,469.00	\$7,708.00	\$7,919.00	\$8,155.00	\$8,401.00	\$246.00	3.0%
Shared Rooms	\$6,495.00	\$6,790.00	\$7,007.00	\$7,199.00	\$7,415.00	\$7,637.00	\$222.00	3.0%
<u>Lincoln Apartments</u>								
Studio, Furnished (9 months)	\$8,539.00	\$8,966.00	\$9,280.00	\$9,558.00	\$9,845.00	\$10,140.00	\$295.00	3.0%
1 Bedroom, Furnished (9 months)	\$9,893.00	\$10,388.00	\$10,752.00	\$11,075.00	\$11,410.00	\$11,752.00	\$342.00	3.0%
2 Bedrooms, Furnished (9 months)	\$7,917.00	\$8,313.00	\$8,604.00	\$8,862.00	\$9,130.00	\$9,404.00	\$274.00	3.0%
Residential Telecommunications Fee	\$242.00	\$252.00	\$252.00	\$263.00	\$271.00	\$279.00	\$8.00	3.0%

FY2020 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY19-FY20	% Change FY19-FY20
Application Fee:								
Undergraduate	\$75	\$75	\$75	\$80	\$80	\$80	\$0	0.0%
Graduate Instate	\$75	\$75	\$75	\$75	\$80	\$80	\$0	0.0%
Graduate Out-of-State	\$75	\$75	\$75	\$75	\$80	\$80	\$0	0.0%
Graduate International	\$75	\$75	\$75	\$75	\$80	\$80	\$0	0.0%
Bursar Administrative Fees:								
Student Bill Late Payment Fee	\$50	\$50	\$50	\$50	to maximum of	5% of Balance to maximum of \$100	\$0	0.0%
Returned Check Fee	\$25	\$25	\$25	\$25	\$25	\$25	\$0	0.0%
Engineering Computer Services:								
Undergraduate & Graduate Computer Fee (Summer)	\$10	\$10	\$10	\$10	\$10	\$10	\$0	0.0%
Student Activities:								
Craft Center	\$7.00 - \$25.00	\$7.00 - \$25.00	\$7.00 - \$25.00	\$7.00 - \$25.00	\$7.00 - \$25.00	\$7.00 - \$25.00	\$0	0.0%
Union Video Center	\$5.00 - \$40.00	\$5.00 - \$40.00	\$5.00 - \$40.00	\$5.00 - \$40.00	\$5.00 - \$40.00	\$5.00 - \$40.00	\$0	0.0%
Student Legal Services Office:								
Stockbridge Student Pro-Rated Activities Fee	\$97.00	\$102.00	\$102.00	\$102	\$102	\$102	\$0	0.0%
Simple Wills & Trusts	\$50-\$200	\$50-\$200	\$50-\$200	\$50-\$200	\$50-\$200	\$50-\$200	\$0	0.0%
Contracts	\$25-\$200	\$25-\$200	\$25-\$200	\$25-\$200	\$25-\$200	\$25-\$200	\$0	0.0%
Settlement Demand Letters	\$25-\$200	\$25-\$200	\$25-\$200	\$25-\$200	\$25-\$200	\$25-\$200	\$0	0.0%
Durable Power of Attorney	\$25-\$50	\$25-\$50	\$25-\$50	\$25-\$50	\$25-\$50	\$25-\$50	\$0	0.0%
Health Care Proxy	\$25	\$25	\$25	\$25	\$25	\$25	\$0	0.0%
Power of Attorney	\$25-\$50	\$25-\$50	\$25-\$50	\$25-\$50	\$25-\$50	\$25-\$50	\$0	0.0%
Mediation & Arbitration (per hour)	\$25-\$50	\$25-\$50	\$25-\$50	\$25-\$50	\$25-\$50	\$25-\$50	\$0	0.0%
Referral Fee (\$150 min.)	15%-33.3%	15%-33.3%	15%-33.3%	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	\$100 - \$1,500	\$100 - \$1,500	\$100 - \$1,500	\$0	0.0%
Contingency Fee Litigation	25% - 33.3%	25% - 33.3%	25% - 33.3%	25% - 33.3%	25% - 33.3%	25% - 33.3%	\$0	0.0%
Pro Se Court Pleadings & Documents	\$50 - \$750	\$50 - \$750	\$50 - \$750	\$50 - \$750	\$50 - \$750	\$50 - \$750	\$0	0.0%
Separation Agreement	\$50 - \$750	\$50 - \$750	\$50 - \$750	\$50 - \$750	\$50 - \$750	\$50 - \$750	\$0	0.0%
Student Health:								
Summer Basic CE (6/1 - 7/31)	\$411	\$432	\$457	\$467	\$479	\$491	\$12	2.5%
Summer Basic CE - per Week	\$51	\$54	\$57	\$58	\$60	\$62	\$2	3.3%
Family Fall (8/1 - 1/31)	\$1,091	\$1,146	\$1,212	\$1,239	\$1,270	\$1,302	\$32	2.5%
Family Spring (2/1 - 7/31)	\$1,091	\$1,146	\$1,212	\$1,239	\$1,270	\$1,302	\$32	2.5%
Graduate < 5 Credits per semester	\$327	\$343.50	\$363.50	\$374.50	\$384.00	\$394.00	\$10	2.6%
GEO < 5 Credits per semester	\$327	\$343.50	\$363.50	\$374.50	\$384.00	\$394.00	\$10	2.6%
CE > 3 credits / UWW / Program Fee per semester	\$327	\$343.50	\$363.50	\$374.50	\$384.00	\$394.00	\$10	2.6%

UNIVERSITY OF MASSACHUSETTS, BOSTON

STUDENT TUITION & FEE SCHEDULES

FY 2020 TUITION & MANDATORY FEES

FY 2020 NON-MANDATORY FEES

FY 2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2020 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

**FY 2020 TUITION & MANDATORY FEES
SUMMARY TABLE**

	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY19-FY20	% Change FY19-FY20
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (resident)	\$13,503	\$13,841	\$14,187	\$346	2.5%
Undergraduate New England Regional	\$25,473	\$26,453	\$27,247	\$794	3.0%
Undergraduate (non-resident)	\$32,660	\$33,640	\$34,649	\$1,009	3.0%
MANDATORY FEES					
Student Activities (Undergraduate)	\$75	\$76	\$116	\$40	52.6%
Technology	\$250	\$250	\$350	\$100	40.0%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (resident)	\$13,828	\$14,167	\$14,653	\$486	3.4%
Undergraduate (NER)	\$25,798	\$26,779	\$27,713	\$934	3.5%
Undergraduate (non-resident)	\$32,985	\$33,966	\$35,115	\$1,149	3.4%
RESIDENTS ONLY					
Standard Room*	N/A	\$9,468	\$9,720	\$252	2.7%
Standard Board (meal plan)	N/A	\$5,390	\$5,550	\$160	3.0%
Subtotal	N/A	\$14,858	\$15,270		
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (resident)	N/A	\$29,025	\$29,923	\$898	3.1%
Undergraduate (NER)		\$41,637	\$42,983	\$1,346	3.2%
Undergraduate (non-resident)	N/A	\$48,824	\$50,385	\$1,561	3.2%
<u>GRADUATE</u>					
TUITION					
Graduate (resident)	\$17,375	\$17,896	\$18,433	\$537	3.0%
Graduate New England Regional	\$28,042	\$29,059	\$29,931	\$872	3.0%
Graduate (non-resident)	\$33,915	\$34,932	\$35,980	\$1,048	3.0%
MANDATORY FEES					
Student Activities (Graduate)	\$105	\$105	\$105	\$0	0.0%
Technology	\$250	\$250	\$350	\$100	40.0%
TOTAL MANDATORY FEES & TUITION					
Graduate (resident)	\$17,730	\$18,251	\$18,888	\$637	3.5%
Graduate (NER)	\$28,397	\$29,414	\$30,386	\$972	3.3%
Graduate (non-resident)	\$34,270	\$35,287	\$36,435	\$1,148	3.3%

FY 2020 NON-MANDATORY FEES

	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	\$ Change	% Change
	Actual	Actual	Actual	Actual	Actual	Proposed	FY19-FY20	FY19-FY20
Online Courses (per credit):								
Undergraduate Non-matriculated (Fall/Spring)				\$410	\$410	\$410	\$0	0%
Undergraduate Non-matriculated (Summer/Winter)				\$410	\$350	\$350	\$0	0%
Undergraduate Matriculated	\$351.00	\$365.00	\$380.00	\$410	\$410	\$410	\$0	0%
Graduate	\$490.00	\$505.00	\$520.00	\$575	\$575	\$575	\$0	0%
Program Fees								
Management								
Undergraduate per Semester (Fall / Spring)	\$400.00	\$412.00	\$425.00	\$446	\$468	\$468	\$0	0%
Undergraduate (Winter / Summer)	\$200.00	\$206.00	\$212.00	\$223	\$234	\$234	\$0	0%
Graduate per Semester (Fall / Spring)	\$800.00	\$840.00	\$860.00	\$905	\$950	\$950	\$0	0%
Graduate (Winter / Summer)	\$400.00	\$420.00	\$430.00	\$452	\$475	\$475	\$0	0%
Nursing								
Undergraduate Students (Fall / Spring)	\$400.00	\$500.00	\$500.00	\$500	\$500	\$500	\$0	0%
Undergraduate Program (Winter / Summer)	\$200.00	\$250.00	\$250.00	\$250	\$250	\$250	\$0	0%
Graduate Students (Fall / Spring)	\$700.00	\$700.00	\$700.00	\$700	\$700	\$700	\$0	0%
Graduate Program (Winter / Summer)	\$350.00	\$350.00	\$350.00	\$350	\$350	\$350	\$0	0%
E&HS								
Undergraduate Students (Fall / Spring)	\$300.00	\$400.00	\$400.00	\$400	\$400	\$400	\$0	0%
Undergraduate Program (Winter / Summer)	\$150.00	\$200.00	\$200.00	\$200	\$200	\$200	\$0	0%
Graduate Students (Fall / Spring)	\$700.00	\$700.00	\$700.00	\$700	\$700	\$700	\$0	0%
Graduate Program (Winter / Summer)	\$350.00	\$350.00	\$350.00	\$350	\$350	\$350	\$0	0%
CLA Infant Parent Mental Health Graduate Certificate								
Program fee	\$9,500.00	\$9,500.00	\$9,500.00	\$9,500	\$9,500	\$9,500	\$0	0%
Application fee	\$75.00	\$75.00	\$75.00	\$75	\$75	\$75	\$0	0%
International Applicant Fee						\$0	\$0	N/A
Laboratory Fees								
Anthropology	\$54.00	\$54.00	\$61.00	\$61	\$61	\$61	\$0	0%
Art	\$44.00 - \$125.00	\$0 - \$125.00	\$0 - \$128.00	\$112 - \$168	\$112 - \$168	\$112 - \$168	\$0	0%
Biology	\$81.00 - \$107.00	\$0 - \$107.00	\$0 - \$112.00	\$91 - \$135	\$100 - \$140	\$100 - \$140	\$0	4%
Chemistry	\$107.00	\$107.00	\$135.00	\$135	\$140	\$140	\$0	0%
Communications & Theatre Arts	\$17.00 - \$35.00	\$0 - \$35.00	\$0 - \$35.00	\$5 - \$35	\$5 - \$35	\$5 - \$35	\$0	0%
Computer Science	\$21.00 - \$55.00	\$0 - \$55.00	\$0 - \$55.00	\$22 - \$54	\$22 - \$55	\$22 - \$55	\$1	2%
School for the Environment	\$52.00 - \$170.00	\$0 - \$170.00	\$0 - \$170.00	\$50 - \$300	\$50 - \$300	\$50 - \$300	\$0	0%
Exercise & Health Sciences	\$50.00 - \$62.00	\$0 - \$62.00	\$0 - \$62.00	\$53 - \$65	\$55 - \$67	\$55 - \$67	\$2	0%
College of Ed & Human Development	\$18.00 - \$150.00	\$0 - \$124.00	\$0 - \$128.00	\$20 - \$132	\$21 - \$136	\$22 - \$140	\$1 - \$4	3%
Language Lab	\$26.00 - \$55.00	\$0 - \$55.00	\$0 - \$55.00	\$26 - \$55	\$26 - \$55	\$26 - \$55	\$0	0%
Mathematics	\$55.00	\$55.00	\$55.00	\$55	\$55	\$20 - \$55	\$0	0%
Nursing	\$34.00 - \$348.00	\$0 - \$348.00	\$0 - \$348.00	\$34 - \$348	\$34 - \$348	\$34 - \$348	\$0	0%
Physics	\$33.00 - \$82.00	\$0 - \$82.00	\$0 - \$90.00	\$33 - \$90	\$33 - \$90	\$33 - \$90	\$0	0%
Engineering	\$52.00 - \$103.00	\$0 - \$103.00	\$0 - \$113.00	\$60 - \$120	\$60 - \$120	\$60 - \$120	\$0	0%
Psychology	\$25.00 - \$64.00	\$0 - \$64.00	\$0 - \$72.00	\$25 - \$72	\$25 - \$72	\$25 - \$72	\$0	0%
Sociology	\$100.00	N/A	N/A					
Administrative Fees								
Admissions Processing - Undergraduate International	\$100.00	\$100.00	\$100.00	\$100	\$100	\$100	\$0	0%
Admissions Processing - Undergraduate Non-Resident	\$60.00	\$60.00	\$60.00	\$60	\$60	\$60	\$0	0%
Admissions Processing - Undergraduate Resident	\$60.00	\$60.00	\$60.00	\$60	\$60	\$60	\$0	0%
Admissions Processing - Undergrad Late Registration Fee	\$100.00	\$100.00	\$100.00	\$100	\$100	\$100	\$0	0%
Admissions Processing - Undergrad Deposit Fee	\$200.00	\$200.00	\$200.00	\$200	\$200	\$200	\$0	0%
Admissions Processing - Undergrad Non Degree	\$60.00	\$60.00	\$60.00	\$60	\$60	\$60	\$0	0%
Admissions Processing - Undergrad Summer I,II	\$100.00	\$100.00	\$100.00	\$100	\$100	\$100	\$0	0%
Admissions Processing - Graduate International	\$107.00	\$100.00	\$100.00	\$100	\$100	\$100	\$0	0%
Admissions Processing - Graduate Non-Resident	\$64.00	\$60.00	\$60.00	\$60	\$60	\$60	\$0	0%
Admissions Processing - Graduate Resident	\$64.00	\$60.00	\$60.00	\$60	\$60	\$60	\$0	0%
Admissions Processing - Graduate Deposit Fee	\$250.00	\$250.00	\$250.00	\$250	\$250	\$250	\$0	0%
Admissions Processing - Graduate Deferral Fee	\$25.00	\$25.00	\$25.00	\$25	\$25	\$25	\$0	0%
Graduate Studies Program Fee	\$432.00	\$450.00	\$450.00	\$450	\$450	\$450	\$0	0%
E-Portfolio Fee	\$124.00	\$128.00	\$132.00					
E-Portfolio Fee - CEHD				\$142	\$65	\$65	\$0	0%
E-Portfolio Fee - GISD				\$142	\$65	\$132	\$67	103%
Late Payment	\$107.00	\$113.00	\$116.00	\$100	\$50	\$50	\$0	0%
Payment Plan Fee (a)	\$39.00	\$40.00	\$41.00	\$45	\$47	\$47	\$0	0%
Returned Check Fee	\$26.00	\$27.00	\$28.00	\$28	\$28	\$28	\$0	0%
Commencement (b)	\$200.00	\$200.00	\$200.00	\$200	\$200	\$200	\$0	0%
Non-Matriculated Student Transcript Fee	\$10.00	\$10.00	\$10.00	\$10	\$10	\$10	\$0	0%
Reactivation Fee	\$60.00	\$60.00	\$60.00	\$60	\$60	\$60	\$0	0%
ID Card, First Year Fee (Matriculated, non-Credit, Online)	\$10.00	\$25.00	\$25.00	NA	\$75	\$75	\$0	0%
ID Card, Subsequent year's fee (Matriculated, non-Credit, Online)				NA	\$12	\$12	\$0	0%
ID Card, Replacement	\$20.00	\$25.00	\$25.00	\$25	\$25	\$25	\$0	0%
ID Card, Replacement (Matriculated, non-Credit, Online)				\$25	\$0	\$0	\$0	0%
ID Card, Online	\$20.00	\$25.00	\$25.00	\$25	\$0	\$0	\$0	0%
Replacement ISC (one card)	N/A	\$25.00	\$25.00	\$25	\$25	\$25	\$0	0%
Mass Media	\$17.00	\$17.00	\$17.00	\$17	\$17	\$17	\$0	0%
New Student Fee	\$643.00	\$643.00	\$643.00	\$643	\$643	\$533	-\$110	11%
Orientation Fee					\$0	\$178	\$178	11%
Student Renewable Energy Fee	\$7.00	\$7.00	\$7.00	\$7	\$7	\$7	\$0	0%
Replacement Diploma Fees								
University Diploma electronic copy				\$15	\$15	\$15		
University Diploma standard order (6-8 weeks delivery)				\$40	\$40	\$40		

FY 2020 NON-MANDATORY FEES

	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	\$ Change	% Change
	Actual	Actual	Actual	Actual	Actual	Proposed	FY19-FY20	FY19-FY20
University Diploma rush order (10-14 business days)				\$60	\$60	\$60		
International Fees								
Study Abroad Fee	\$100.00	\$100.00	\$100.00	\$100	\$100	\$100	\$0	0%
International Student Fee	\$310.00	\$310.00	\$320.00	\$320	\$320	\$330	\$10	3%
Global Programs Support Fees								
Education Abroad Engagement Fee (c)			\$20.00	\$20	\$20	\$20	\$0	0%
Health Fees								
Student Health Insurance Plan (SHIP) (d)	\$2,131.00	\$1,920.00	\$2,035.00	\$2,075	\$2,178	\$2,178	\$0	0%

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 experience.

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 2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	\$ Change	% Change
	Actual	Actual	Actual	Actual	Actual	Proposed	FY19-FY20	FY19-FY20
Program Fees								
College of Advancing & Professional Studies (CAPS)								
Matriculated*								
Undergraduate								
Undergraduate								
Resident (Fall/Spring)	351.00	365.00	380.00	\$576	\$591	\$605	\$15	2.5%
Non-resident (Fall/Spring)				\$1,375	\$1,415	\$1,458	\$43	3.0%
Resident (Summer/Winter)				\$470	\$470	\$470	\$0	0%
Non-resident (Summer/Winter)				\$850	\$850	\$850	\$0	0%
online & off campus				\$410	\$410	\$410	\$0	0%
Graduate								
Graduate	490.00	505.00	520.00					
Resident (Fall/Spring)				\$739	\$761	\$783	\$23	3%
Non-resident (Fall/Spring)				\$1,428	\$1,470	\$1,515	\$44	3%
Resident (Summer/Winter)				\$625	\$625	\$625	\$0	0%
Non-resident (Summer/Winter)				\$950	\$950	\$950	\$0	0%
online & off campus				\$575	\$575	\$575	\$0	0%
Non-matriculated								
Undergraduate (Fall/Spring)				\$410	\$410	\$410	\$0	0%
Undergraduate (Winter/Summer)				\$410	\$350	\$350	\$0	0%
Graduate				\$575	\$575	\$575	\$0	0%
Executive MBA, MSA, MFA Program								
Professional graduate program fee	N/A	\$840.00	\$870.00	\$870	\$900	\$900	\$0	0%
Summer Services Fees (Matriculated F2F per Term)	\$199	\$237	237.00	\$237	\$245	\$245	\$0	0%
Summer Services Fees (Non Matriculated F2F, all online per credit, non-refundable)						\$10	\$10	N/A
CAPS - non credit program	\$32.00 - \$5,500.00	\$32.00 - \$5,500.00	\$25.00 - \$6,250.00	\$0-\$6,425	\$0 - \$6,600	\$0 - \$6,750	\$175	3%
CAPS - professional development	\$25.00 - \$6,000.00	\$25.00 - \$6,000.00	\$25.00 - \$6,250.00	\$0-\$6,425	\$0 - \$6,600	\$0 - \$6,750	\$175	3%
Other Fees								
Parking, Per day	\$6.00	\$6.00	\$6.00	\$6	N/A	N/A		
Parking, Per day (Bayside)					\$9	\$9	\$0	0%
Parking, Per day (Garage and Lot D)					\$15	\$15	\$0	0%
Parking, 5-day park pass	\$29.00	\$29.00	\$29.00	\$29	N/A	N/A		
Parking, 10-day park pass	\$56.00	\$56.00	\$56.00	\$56	N/A	N/A		
Parking, 30-day park pass	\$162.00	\$162.00	\$162.00	\$162	N/A	N/A		
Parking, 45-day park pass	\$238.00	\$238.00	\$238.00	\$238	N/A	N/A		
Parking, 60-day park pass	\$300.00	\$300.00	\$300.00	\$300	N/A	N/A		
Parking, Per Evening after 4pm (West Garage Only)						\$10	\$10	N/A
Parking, Monthly pass	\$96.00	\$96.00	\$96.00	\$96	N/A	N/A		
Parking, Monthly pass (Bayside, Faculty/Staff)					\$144	\$112 - \$160	\$0	0%
Parking, Monthly pass (Bayside, new Student)					\$126	\$126	\$0	0%
Parking, Monthly pass (Bayside, cont Student)					\$115	\$115	\$0	0%
Parking, Monthly pass (Garage and Lot D, Faculty/Staff)					\$240	\$122 - \$240	\$0	0%
Parking, Monthly pass (Garage and Lot D, Faculty/Staff) reserved space					\$360	\$300	-\$60	-17%
Parking, Monthly pass (Garage and Lot D, comm Student)					\$210	\$138	-\$72	-34%
Parking, Monthly pass (Garage and Lot D, res Student) reserved space					\$315	\$315	\$0	0%
Parking, Semester pass	\$342.00	\$342.00	\$342.00	\$342	N/A	N/A		
Parking, Semester pass (students - pre-pay)	\$325.00	\$325.00	\$325.00	\$325	N/A	N/A		
Parking, Semester pass (Bayside, Faculty/Staff)					\$576	\$576	\$0	0%
Parking, Semester pass (Bayside, new Students)					\$504	\$504	\$0	0%
Parking, Semester pass (Bayside, cont Students)					\$410	\$460	\$50	12%
Parking, Semester pass (Garage and Lot D, Faculty/Staff)					\$960	\$550	-\$410	-43%
Parking, Semester pass (Garage and Lot D, comm Student)					\$840	\$550	-\$290	-35%
Parking, Semester pass (Garage and Lot D, res Student)					\$1,260	\$1,200	-\$60	-5%
Parking, 30 park pass Semester, (Bayside; Student/Faculty Only)						\$270	\$270	N/A
Parking, 15 park pass Semester, (Garages and Lot D; Student/Faculty Only)						\$150	\$150	N/A
Parking, 30 park pass Semester, (Garages and Lot D; Student/Faculty Only)						\$360	\$360	N/A
Single (community bath), Academic					\$10,746	\$11,224	\$478	4%
Single (private bath), Academic					\$11,988	\$12,488	\$500	4%
Large single (private bath), Academic					\$12,213	\$12,728	\$515	4%
Double (community bath), Academic					\$9,468	\$9,720	\$252	3%
Large Double Community Bath					\$9,693	\$9,904	\$211	2%
Double (private bath), Academic					\$10,899	\$11,352	\$453	4%
Double (private bath), Large Double Private Bath					\$11,124	\$11,584	\$460	4%
Triple (private bath), Academic					\$9,000	\$9,232	\$232	3%
Quad (private bath), Academic					\$8,703	\$8,896	\$193	2%
Neighborhood A (25 meal block per year)					\$300	\$300	\$0	0%
Neighborhood B (50 meal block per year)					\$575	\$575	\$0	0%
Points Plan A (75 Dining points +1 Bonus Swipe)						\$75	\$75	N/A
Points Plan B (125 Dining points +2 Bonus Swipe)						\$125	\$125	N/A
Points Plan C (300 Dining points + 5 Bonus Swipe)						\$300	\$300	N/A
Combo A - 25 Meal Block per year plus 100 dining points						\$390	\$390	N/A
Combo B - 50 Meal Block per year plus 100 dining points						\$665	\$665	N/A

Notes:

Early Learning Centre only includes Private Fees only, State Contractual Fees set by the Commonwealth therefore not determined in these workings

* Fall/Spring Resident and Non-Resident face-to-face courses charged Tuition and Mandatory Fees

** Applicable to College of Mgmt MS Accounting and Professional MBA programs

*** denotes fees not applicable to students (ie free for students)

FY 2020 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY19-FY20	% Change FY19-FY20
Other Fees (Not Student Related)								
Athletics - Beacon Fitness Ctr Employees & Alumni - Annual	\$202.00	\$202.00	\$216.00	\$216	\$216	\$216	\$0	0%
Athletics - Beacon Fitness Center Community Adult - Annual	\$199.00	\$199.00	\$125.00	\$125	\$125	\$125	\$0	0%
Athletics - Beacon Fitness Center Community Family - Annual	\$221.00	\$221.00	\$160.00	\$160	\$160	\$160	\$0	0%
Athletics - Beacon Fitness Center Community Youth - Annual	\$33.00	\$33.00	\$30.00	\$30	\$30	\$30	\$0	0%
Athletics - Beacon Fitness Center Community Personal Trainer - Hourly	\$31.00	\$31.00	\$35.00	\$40	\$40	\$40	\$0	0%
Athletics - Clark Athletic Center , Creative Room Rental - Hourly	\$110.00	\$110.00	\$110.00	N/A	N/A	N/A	N/A	N/A
Athletics - Clark Athletic Center , Lobby - Hourly	\$100.00	\$100.00	\$100.00	\$100	\$100	\$100	\$0	0%
Athletics - Clark Athletic Center Gymnasium - Hourly	\$350.00	\$350.00	\$350.00	\$350	\$350	\$350	\$0	0%
Athletics - Clark Locker Rooms (case by case request) -/Hour /locker room	\$54.00	\$54.00	\$54.00	\$54	\$54	\$54	\$0	0%
Athletics - Clark Center , Dive Well only Lifeguard	\$57.00	\$57.00	\$58.00	\$60	\$60	\$60	\$0	0%
Athletics - Ice Rink Rental - per hour	\$250.00	\$250.00	\$250.00	\$250	\$250	\$250	\$0	0%
Athletics - Swimming Pool Rental - Hourly (including Lifeguard)	\$109.00	\$109.00	\$112.00	\$125	\$125	\$125	\$0	0%
Athletics - Softball Field Rental - Per game	\$275.00	\$275.00	\$275.00	\$275	\$275	\$275	\$0	0%
Athletics - 400-Meter Track, lacrosse/soccer field, per game/match	\$300.00	\$300.00	\$300.00	\$300	\$300	\$300	\$0	0%
Athletics - Facility Staff Member	\$49.00	\$49.00	\$49.00	\$49	\$49	\$49	\$0	0%
Athletics - Additional Life Guard - per hour	\$17.00	\$17.00	\$18.00	\$18	\$18	\$18	\$0	0%
Athletics - Additional Ice Rink Attendant - per hour	\$16.00	\$16.00	\$16.00	\$16	\$16	\$16	\$0	0%
Athletics - Student Employee - per hour	\$14.00	\$14.00	\$14.00	\$14	\$14	\$14	\$0	0%
Athletics - UMB Game Admission - Spectator over 12 yrs.	\$7.00	\$7.00	\$7.00	\$7	\$7	\$7	\$0	0%
Athletics - Monan Park Rentals - Main field per game			\$600.00	\$750	\$750	\$750	\$0	0%
Athletics - Monan Park Rentals - JV field per game			\$250.00	\$250	\$250	\$250	\$0	0%
Athletics - Monan Park Rentals - All day tournaments, 2-3 days			\$5,000.00	\$2,500 - \$5,000	\$2,500 - \$5,000	\$2,500 - \$5,000	\$0	0%
Athletics - Monan Park Rentals - Both fields per game			\$850.00	\$1,000	\$1,000	\$1,000	\$0	0%
Center for Collaborative Leadership - Workshop Fee	\$7,000.00	\$7,000.00	\$7,000.00	\$7,000	\$7,500	\$7,500	\$0	0%
Center for Collaborative Leadership - Luncheon Fee	\$100.00	\$100.00	\$100.00	\$100	\$100	\$100	\$0	0%
Center for Collaborative Leadership - Breakfast Fee	\$0.00	\$50.00	\$50.00	\$50	\$50	\$50	\$0	0%
Center for Collaborative Leadership - 2 Hour Programming	\$0.00	\$50.00	\$50.00	\$50	\$50	\$50	\$0	0%
Center for Collaborative Leadership - Half-day Programming for alumni	\$350.00	\$350.00	\$350.00	\$350	\$350	\$350	\$0	0%
Center for Collaborative Leadership - Full-day programming for alumni	\$750.00	\$750.00	\$750.00	\$750	\$750	\$750	\$0	0%
Distance Learning Ctr - Audio Visual Production Products (each)	\$5.00 - \$47.00	\$5.00 - \$47.00	\$5.00 - \$47.00	\$5 - \$47	\$5 - \$47	\$5 - \$47	\$0	0%
Distance Learning Ctr - Audio Visual Production Services (per hour)	\$12.00 - \$163.00	\$12.00 - \$163.00	\$12.00 - \$163.00	\$12 - \$163	\$12 - \$163	\$12 - \$163	\$0	0%
ILT - ALERTA Summer Program Fee plus optional lunch fee (per student)	\$27.00 - \$106.00	N/A	\$30 - \$110	\$35 - \$115	\$35 - \$115	\$35 - \$115	\$0	0%
ILT - TAG Summer Program Fee for EXCEL (per student)	\$27.00 - \$106.00	N/A	\$30 - \$110	\$35 - \$115	\$35 - \$115	\$35 - \$115	\$0	0%
ILT - TAG Summer Program Fee for SPELL (per student)	\$27.00 - \$106.00	N/A	\$30 - \$110	\$35 - \$115	\$35 - \$115	\$35 - \$115	\$0	0%
Joiner Center - Sale of Center Publications/Videos	\$12.00 - \$31.00	\$12.00 - \$31.00	\$12.00 - \$31.00	\$12 - \$31	\$12 - \$31	\$12 - \$31	\$0	0%
Joiner Center - Writer's Workshop Fee (one week/two weeks)	\$238.00 - \$433.00	\$238.00 - \$433.00	\$250 - \$500	\$250 - \$500	\$250 - \$500	\$250 - \$500	\$0	0%
Osher Lifelong Learning Institute (OLLI) (formerly LETS) - Annual Members	\$150.00	\$150.00	\$150.00	\$220	\$220	\$220	\$0	0%
Library - Overdue Fines	\$0.75 - \$30.00	\$0.75 - \$30.00	\$0.75 - \$30.00	\$0.75 - \$30	\$0.75 - \$30	\$0.75 - \$30	\$0	0%
Library - Book Replacement Fee	\$1.03 - \$1,030.00	\$1.03 - \$1,030.00	\$1.03 - \$1,030.00	\$1.03 - \$1,030	\$1.03 - \$1,030	\$1.03 - \$1,030	\$0	0%
Library - Book Replacement Processing Costs	\$30.00	\$30.00	\$30.00	\$30	\$30	\$30	\$0	0%
Library - 3 Hour Reserve Materials Late Fee	\$10 - \$150.00	\$10 - \$150.00	\$10 - \$150.00	\$10 - \$150	\$10 - \$150	\$10 - \$150	\$0	0%
Library - 2 Day Reserve Late Fee	\$30.00 - \$150.00	\$30.00 - \$150.00	\$30.00 - \$150.00	\$30 - \$150	\$30 - \$150	\$30 - \$150	\$0	0%
Library - Interlibrary Loan - Overdue Fee	\$0.75 - \$30.00	\$0.75 - \$30.00	\$0.75 - \$30.00	\$0.75 - \$30	\$0.75 - \$30	\$0.75 - \$30	\$0	0%
Library - Interlibrary Loan - Book Replacement Costs	\$1.03 - \$1,030.00	\$1.03 - \$1,030.00	\$1.03 - \$1,030.00	\$1.03 - \$1,030	\$1.03 - \$1,030	\$1.03 - \$1,030	\$0	0%
Library - Interlibrary Loan - Book Replacement Processing Fee	\$30.00	\$30.00	\$30.00	\$30	\$30	\$30	\$0	0%
Library - Archive copying fees	\$15 - \$15	\$15 - \$15	\$15 - \$15	\$15 - \$15	\$15 - \$15	\$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 minute				\$0	\$0	\$0	\$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 ni	\$30.00	\$30.00	\$30.00	\$40	\$40	\$40	\$0	0%
Nantucket Field Station - Gouin Village Apartments (UMB users - per night,	\$25.00	\$25.00	\$25.00	\$25	\$25	\$25	\$0	0%
Nantucket Field Station - Gouin Village Apartments (non UMB users - full cc	\$400.00	\$400.00	\$400.00	\$960	\$960	\$960	\$0	0%
Nantucket Field Station - Gouin Village Apartments (UMB users - full condo	\$300.00	\$300.00	\$300.00	\$600	\$600	\$600	\$0	0%
Nantucket Field Station - Gouin Village Apartments (non UMB users - per w	\$200.00	\$200.00	\$200.00	\$240	\$240	\$240	\$0	0%
Nantucket Field Station - Gouin Village Apartments (UMB users - per week,	\$150.00	\$150.00	\$150.00	\$150	\$150	\$150	\$0	0%
Nantucket Field Station - Bunkhouse (UMB users - per night)	\$15.00	\$15.00	\$15.00	\$15	\$20	\$20	\$0	0%
Nantucket Field Station - Bunkhouse (non UMB users - per night)	\$25.00	\$25.00	\$25.00	\$30	\$40	\$40	\$0	0%
Nantucket Field Station - Bunkhouse (Non Profit - per night)				\$25	\$30	\$30	\$0	0%
Nantucket Field Station - Bunkhouse (non UMB users - per week)	\$100.00	\$100.00	\$100.00	\$180	\$180	\$180	\$0	0%
Nantucket Field Station - Bunkhouse (UMB users - per week)	\$80.00	\$80.00	\$80.00	\$90	\$90	\$90	\$0	0%
Nantucket Field Station - Bunkhouse (non UMB users - per week both bunk n	\$200.00	\$200.00	\$200.00	\$2,520	\$2,520	\$2,520	\$0	0%
Nantucket Field Station - Bunkhouse (UMB users - per week both bunk room:	\$150.00	\$150.00	\$150.00	\$1,260	\$1,260	\$1,260	\$0	0%
Nantucket Field Station - Lab Bench Use Fee (non UMB users)				\$16	\$16	\$16	\$0	0%
Nantucket Field Station - Lab Bench Use Fee (UMB users)				\$8	\$8	\$8	\$0	0%
Nantucket Field Station - Lab User Fee (non UMB users)				\$100	\$100	\$100	\$0	0%
Nantucket Field Station - Lab User Fee (UMB users)				\$50	\$50	\$50	\$0	0%
Nantucket Field Station - Lab Teaching Fee (non UMB users)				\$50	\$50	\$50	\$0	0%
Nantucket Field Station - Lab Teaching Fee (UMB users)				\$25	\$25	\$25	\$0	0%
Nantucket Field Station - Lecture Room Meeting Fee (non UMB users per day)				\$150	\$150	\$150	\$0	0%
Nantucket Field Station - Lecture Room Meeting Fee (UMB users per day)				\$75	\$75	\$75	\$0	0%

FY 2020 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY19-FY20	% Change FY19-FY20
Other Fees (Not Student Related)								
Nantucket Field Station - Conference Room Meeting Fee (non UMB users per day)				\$75	\$75	\$75	\$0	0%
Nantucket Field Station - Conference Room Meeting Fee (UMB users per day)				\$45	\$45	\$45	\$0	0%
Nantucket Field Station - Vehicle Use Fee (per day)	\$20.00	\$20.00	\$20.00	\$20	\$20	\$20	\$0	0%
Nantucket Field Station - Station Use Fee	\$8.00	\$8.00	\$8.00					
Nantucket Field Station - Meeting Fee (per day)	\$75.00	\$75.00	\$75.00					
New England Resource Center for Higher Education (NERCHE) - Assoc Men	\$200.00	N/A	N/A					
NERCHE - Institutional Membership	\$800.00	N/A	N/A					
NERCHE - Lynton Colloquium	\$150.00	\$150.00	\$150.00					
NERCHE - Think Tank Membership	\$725.00	N/A	N/A					
NERCHE - Virtual Think Tank Registration Fee	\$200.00	\$210.00	N/A					
NERCHE - Virtual Think Tank Recording	\$100.00	\$100.00	N/A					
ODI - Commonwealth Compact Talent Network Access Tier 1	\$1,000 - \$10,000		\$600.00 - \$10,000.00	\$600 - \$10,000	\$600 - \$10,000	\$600 - \$10,000	\$0	0%
ODI - Commonwealth Compact Talent Network Access Tier 2	\$250 - \$5,000		\$300.00 - \$5,000.00	\$300 - \$5,000	\$300 - \$5,000	\$300 - \$5,000	\$0	0%
ODI - Commonwealth Compact Talent Network Access Sole Practitioners	\$250.00	\$250.00	\$100.00	\$100	\$100	\$100	\$0	0%
Campus Center Vendor Fee (charged to vendor)	\$182.00 - \$351.00	\$182.00 - \$351.00	\$133.00 - \$200.00	\$133 - \$200	\$133 - \$200	\$133 - \$200	\$0	0%
Student Affairs, Student Locker Rental - per semester	\$16.00	\$20.00	\$20.00	\$20	\$20	\$20	\$0	0%
Student Affairs, Student Locker Rental - per academic year	\$20.00	\$25.00	\$25.00	\$25	\$25	\$25	\$0	0%
Public Safety, Parking Fines - category 1	\$25.00 - \$150.00	\$75.00 - \$150.00	\$75.00 - \$150.00	\$75 - \$150	\$75 - \$150	\$75 - \$150	\$0	0%
Public Safety, Parking Fines - category 2	\$15.00 - \$25.00	\$25.00 - \$35.00	\$25.00 - \$35.00	\$25 - \$35	\$25 - \$35	\$25 - \$35	\$0	0%
Public Safety, Police details	\$47 - \$51	\$48 - \$52	\$49 - \$59	\$50 - \$60	\$50 - \$60	\$50 - \$60	\$0	0%
Event Services - All Room Rental Charges	\$90.00 - \$4,975.00	\$90.00 - \$4,975.00	\$150.00 - \$4,975.00	\$150 - \$4,975	\$150 - \$4,975	\$155 - \$5,124.25	\$149	3%
CNHS GoKids - monthly maintenance fee	\$141.00	\$141.00	\$141.00	\$141	\$141	\$141	\$0	0%
CNHS GoKids - personal trainer per/hr	\$76.00	\$76.00	\$76.00	\$76	\$76	\$76	\$0	0%
CNHS GoKids - group program per/hr	\$15.00	\$15.00	\$15.00	\$15	\$15	\$15	\$0	0%

Housing Rates	2019-2020
Single (community bath), Academic	\$11,224
Single (private bath), Academic	\$12,488
Large single (private bath), Academic	\$12,728
Double (community bath), Academic	\$9,720
Large Double Community Bath	\$9,904
Double (private bath), Academic	\$11,352
Double (private bath), Large Double Private Bath	\$11,584
Triple (private bath), Academic	\$9,232
Quad (private bath), Academic	\$8,896

UNIVERSITY OF MASSACHUSETTS, DARTMOUTH

STUDENT TUITION & FEE SCHEDULES

FY 2020 TUITION & MANDATORY FEES

FY 2020 NON-MANDATORY FEES

FY2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY2020 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

FY 2020 TUITION & MANDATORY FEES
SUMMARY TABLE

	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY2019-20	% Change FY2019-20
UNDERGRADUATE					
TUITION					
Undergraduate (resident)	\$13,166	\$13,496	\$13,833	\$337	2.5%
Undergraduate (non-resident)	\$27,880	\$28,716	\$29,578	\$861	3.0%
Undergraduate (regional & proximity)	\$17,891	\$18,428	\$18,981	\$553	3.0%
MANDATORY FEES					
Student Fee	\$155	\$175	\$175	\$0	0.0%
Technology Fee	\$250	\$250	\$350	\$100	40.0%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (resident)	\$13,571	\$13,921	\$14,358	\$437	3.1%
Undergraduate (non-resident)	\$28,285	\$29,141	\$30,103	\$961	3.3%
Undergraduate (regional & proximity)	\$18,296	\$18,853	\$19,506	\$653	3.5%
RESIDENTS ONLY					
Standard Room	\$8,191	\$8,600	\$9,030	\$430	5.0%
Standard Board	\$4,562	\$4,699	\$4,840	\$141	3.0%
Subtotal	\$12,753	\$13,299	\$13,870	\$571	4.3%
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (resident)	\$26,324	\$27,220	\$28,228	\$1,008	3.7%
Undergraduate (non-resident)	\$41,038	\$42,440	\$43,973	\$1,532	3.6%
Undergraduate (regional & proximity)	\$31,049	\$32,152	\$33,376	\$1,224	3.8%
GRADUATE					
TUITION					
Graduate (resident)	\$15,449	\$15,912	\$16,390	\$477	3.0%
Graduate (non-resident)	\$27,880	\$28,716	\$29,578	\$861	3.0%
Graduate (regional & proximity)	\$19,686	\$20,277	\$20,885	\$608	3.0%
Graduate Law School (resident)	\$27,016	\$27,826	\$28,661	\$835	3.0%
Graduate Law School (non-resident)	\$35,413	\$36,475	\$37,569	\$1,094	3.0%
Graduate Law School (regional & proximity)	\$28,831	\$29,696	\$30,587	\$891	3.0%
MANDATORY FEES					
Student Fee	\$155	\$175	\$175	\$0	0.0%
Technology Fee	\$250	\$250	\$350	\$100	40.0%
TOTAL MANDATORY FEES & TUITION					
Graduate (resident)	\$15,854	\$16,337	\$16,915	\$577	3.5%
Graduate (non-resident)	\$28,285	\$29,141	\$30,103	\$961	3.3%
Graduate (regional & proximity)	\$20,091	\$20,702	\$21,410	\$708	3.4%
Graduate Law School (resident)	\$27,421	\$28,251	\$29,186	\$935	3.3%
Graduate Law School (non-resident)	\$35,818	\$36,900	\$38,094	\$1,194	3.2%
Graduate Law School (regional & proximity)	\$29,236	\$30,121	\$31,112	\$991	3.3%
RESIDENTS ONLY					
Standard Room	\$8,191	\$8,600	\$9,030	\$430	5.0%
Standard Board	\$4,562	\$4,699	\$4,840	\$141	3.0%
Subtotal	\$12,753	\$13,299	\$13,870	\$571	4.3%
TOTAL TUITION AND ROOM & BOARD					
Graduate (resident)	\$28,607	\$29,636	\$30,785	\$1,148	3.9%
Graduate (non-resident)	\$41,038	\$42,440	\$43,973	\$1,532	3.6%
Graduate (regional & proximity)	\$32,844	\$34,001	\$35,280	\$1,279	3.8%

FY 2020 NON-MANDATORY FEES

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY2019-20	% Change FY2019-20
OTHER FEES								
Athletic Fee				\$0	\$0		\$0	0.0%
Health fee				\$0	\$0		\$0	0.0%
Campus Center				\$0	\$0		\$0	0.0%
Administrative Fees								
Orientation (Freshmen)	\$250.00	\$250.00	\$260.00	\$265	\$270	\$270	\$0	0.0%
Orientation International students	\$250.00	\$260.00	\$260.00	\$260	\$260	\$260	\$0	0.0%
Orientation Transfer Students	\$150.00	\$150.00	\$150.00	\$150	\$150	\$150	\$0	0.0%
Graduation Fee (final semester only)	\$150.00	\$180.00	\$180.00	\$180	\$185	\$185	\$0	0.0%
Nursing Exam Prep Fee	\$186.00	\$219.00	\$219.00	\$356	\$390	\$401	\$11	2.8%
Nursing Exam Security Software Fee (BS Students Sophomore-Senior)				\$0	\$100	\$103	\$3	3.0%
Readmit Fee (students withdrawals and reapply)	\$60.00	\$60.00	\$60.00	\$60	\$60	\$60	\$0	0.0%
Continuation of Thesis Fee	\$250.00	\$250.00	\$250.00	\$250	\$250	\$250	\$0	0.0%
Withdrawn on Exchange Fee foreign exchange programs	\$250.00	\$250.00	\$250.00	\$250	\$250	\$250	\$0	0.0%
Withdrawn on Exchange Fee Formal exchange programs	\$600.00	\$600.00	\$600.00	\$600	\$600	\$600	\$0	0.0%
Withdrawn on Exchange Fee-Co-op Exchange programs	\$105-\$305	\$105-\$305	\$105-\$305	\$105-\$305	\$105-\$305	\$105-\$305	\$0	0.0%
Student Teaching Practicum	\$750.00	\$750.00	\$750.00	\$750	\$773	\$773-\$1,087		
Health Fees								
Health Insurance	\$2,165.00	TBD	TBD				TBD	TBD
International Fees								
International Student Fee	\$500.00	\$500.00	\$520.00	\$520	\$520	\$520	\$0	0.0%
Hessen Exchange Program Fee German Exchange Program	\$5000-\$7200	\$5000-\$7200	\$10,000-\$14,400	\$10,000-\$14,400	\$10,000-\$14,400	\$10,000-\$14,400	\$0	0.0%
Program Fees								
Arts & Sciences Major Fee (Humanities & Social Sciences)	\$365.00	\$383.25	\$402.00	\$414	\$426	\$426	\$0	0.0%
Arts & Sciences Major Fee (Sciences)	\$730.00	\$766.50	\$805.00	\$829	\$928	\$928	\$0	0.0%
Visual & Performing Arts Major Fee	\$780.00	\$819.00	\$851.00	\$876	\$902	\$902	\$0	0.0%
Business Major Fee	\$400.00	\$420.00	\$441.00	\$455	\$468	\$482	\$14	3.0%
Nursing Major Fee	\$550.00	\$605.00	\$726.00	\$805	\$885	\$973	\$88	9.9%
Nursing Major Fee-MLS				\$0	\$0	\$928	\$928	0.0%
Engineering Major Fee	\$730.00	\$766.50	\$805.00	\$1,200	\$1,350	\$1,350	\$0	0.0%
SMAST Major Fee	\$685.00	\$719.25	\$748.00	\$770	\$794	\$818	\$24	3.0%
SEPPCE Major Fee (formerly paying Arts & Sciences Fee)	\$365.00	\$383.25	\$402.00	\$414	\$426	\$426	\$0	0.0%
Technology Fee Law School	\$200.00	\$200.00	\$200.00	\$0	\$0	\$0	\$0	0.0%
Law School Summer Fee (per credit)	N/A	\$1,020.00	\$1,071.00	\$1,102	\$1,135	\$1,169	\$34	3.0%
Other Fees (Not Student Related)								
Applied Music (private music lessons)	\$618.00	\$618.00	\$643.00	\$662	\$733	\$755	\$22	3.0%
Alumni Fee**(final semester only)	\$20.00	\$20.00	\$20.00	\$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

FY2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY2019-20	% Change FY2019-20
AUXILIARY CHARGES								
Auxiliary Fees								
Room and Board:								
Single Room	\$8,110	\$8,514	\$8,897	\$9,165	\$9,623	\$10,104	\$481	5.0%
Double Room	\$7,247	\$7,609	\$7,951	\$8,191	\$8,600	\$9,030	\$430	5.0%
Design Triple/Quad Room, Non A/C Trad	\$7,078	\$7,432	\$7,766	\$7,999	\$8,399	\$8,819	\$420	5.0%
Triple Room,w A/C: OG	\$7,237	\$7,600	\$7,942	\$8,179	\$8,588	\$9,017	\$429	5.0%
Double Room,A/C:OG/PD	\$7,715	\$8,101	\$8,466	\$8,719	\$9,155	\$9,613	\$458	5.0%
Cedar Dell "A" Room	\$8,007	\$8,407	\$8,785	\$9,049	\$9,502	\$9,977	\$475	5.0%
Cedar Dell	\$8,147	\$8,554	\$8,939	\$9,208	\$9,668	\$10,151	\$483	5.0%
New Apartments-4 Bedroom	\$8,511	\$8,935	\$9,337	\$9,618	\$10,099	\$10,604	\$505	5.0%
New Apartments-2 Bedroom	\$9,274	\$9,738	\$10,176	\$10,481	\$11,005	\$11,555	\$550	5.0%
Single,2-bed/1 bath a/c:Woodlands	\$8,892	\$9,336	\$9,756	\$10,049	\$10,551	\$11,079	\$528	5.0%
TeleCom Fee	\$366	\$0	\$0	\$0			\$0	#DIV/0!
19 Meal Plan	\$3,822	\$4,013	\$0	\$0			\$0	#DIV/0!
14 Meal Plan	\$3,714	\$3,900	\$0	\$0			\$0	#DIV/0!
10 Meal Plan	\$3,326	\$3,492	\$0	\$0			\$0	#DIV/0!
New Meal Platinum Plan	\$0	\$0	\$4,519	\$4,745	\$4,887	\$5,034	\$147	3.0%
New Meal Gold Plan	\$0	\$0	\$4,345	\$4,562	\$4,699	\$4,840	\$141	3.0%
New Meal Silver Plan	\$0	\$0	\$4,345	\$4,562	\$4,699	\$4,840	\$141	3.0%
New Meal Bronze Plan	\$0	\$0	\$2,720	\$2,856	\$2,942	\$3,089	\$147	5.0%
Parking:								
Reserved	\$550	\$550	\$550	\$550	\$550	\$550	\$0	0.0%
Near Building Spaces	\$0	\$0	\$0				\$0	#DIV/0!
Additional Overnight Parking	\$0	\$0	\$0				\$0	#DIV/0!
Summer Session	\$25	\$25	\$25	\$25	\$25	\$25	\$0	0.0%
Part-Time Students	\$50	\$50	\$50	\$50	\$50	\$50	\$0	0.0%
Part-Time Faculty & Staff	\$75	\$75	\$75	\$75	\$93	\$93	\$0	0.0%
Full-Time Students	\$185	\$185	\$185	\$185	\$185	\$185	\$0	0.0%
Resident Students	\$235	\$235	\$235	\$235	\$235	\$235	\$0	0.0%
Full-Time Faculty, Staff	\$150	\$150	\$150	\$150	\$185	\$185	\$0	0.0%
Program Fees (Continuing Education)								
*Division of Continuing Education								
Undergraduate Tuition (per credit)	\$313	\$313	\$322	\$332	\$332	\$342	\$10	3.0%
Undergraduate Tuition Accelerated BS in Nursing (per credit)	\$0	\$0	\$631	\$631	\$631	\$663	\$32	5.1%
Graduate Tuition (per credit)	\$368	\$368	\$379	\$0	\$0	\$0		
Undergraduate Tuition On-Line (per credit)	\$313	\$313	\$322	\$332	\$332	\$342	\$10	3.0%
Graduate Tuition On-Line (per credit)	\$368	\$368	\$379	\$0	\$0	\$0		
Graduate Tuition EDU & MAT program (per credit)	\$368	\$368	\$379	\$390	\$390	\$402	\$12	3.0%
Graduate Tuition ABA Program (per credit)	\$439	\$439	\$452	\$466	\$466	\$480	\$14	3.0%
Graduate MBA &MPP Program (per credit)	\$521	\$521	\$537	\$553	\$553	\$570	\$17	3.0%
Graduate MS in Computer Science Program	\$521	\$521	\$537	\$553	\$553	\$570	\$17	3.0%
Graduate MS in Nursing (per credit)				\$553	\$553	\$570	\$17	3.0%
On-line Technology Fee	\$150-\$200	\$150-\$200	\$150-\$200	\$150	\$150	\$150	\$0	0.0%
Application Fee	\$60	\$60	\$60	\$60	\$60	\$60	\$0	0.0%
Application Fee-ESL/ALCI	\$0	\$0	\$60	\$60	\$60	\$60	\$0	0.0%
ALCI/ESL Program Fee (per semester)	\$0	\$0	\$5,950	\$6,128	\$6,128	\$6,312	\$184	3.0%
Non-Credit Tuition	\$15-\$2000	\$15-\$2000	\$15-\$2000	\$15-\$2000	\$15-\$2000	\$15-\$2000		
Campus Center (per credit)	\$5	\$5	\$5	\$5	\$5	\$5	\$0	0.0%
Library Fee (per credit)	\$6	\$6	\$6	\$6	\$6	\$6	\$0	0.0%
Registration (flat fee)	\$30	\$30	\$30	\$30	\$30	\$30	\$0	0.0%
Prior Learning Workshops	\$2,128	\$2,128	\$2,128	\$2,324	\$2,324	\$2,394	\$70	3.0%
College Fees	\$314-\$780	\$390-\$819	\$402-\$851	\$414-\$1200	\$426 - \$1350	\$426 - \$1350		
Corporate Contract Fee	\$133-\$500	\$133-\$500	\$133-\$500	\$137-\$515	\$137-\$515	\$137-\$515		

FY2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY2019-20	% Change FY2019-20
Pathways Program Fee in state (per semester)	\$5,236	\$5,236	\$5,298	\$5,430	\$0	\$0		
Pathways Program Fee out of state (per semester)	\$8,103	\$8,675	\$9,147	\$9,421	\$0	\$0		
Pathways Program Fee proximity(per semester)	\$6,561	\$6,949	\$7,221	\$7,438	\$0	\$0		
Cape Cod Fee	\$45	\$45	\$0	\$0			\$0	#DIV/0!
Student Teacher Practicum Fee (per 3 credits)	\$650	\$750	\$750	\$773	\$775	\$800	\$25	3.2%
Residential Study Abroad Undergraduate Resident Program Fee	\$23,116	\$24,210	\$0	\$0	\$0		\$0	#DIV/0!
Residential Study Abroad Undergraduate Non-Resident Program Fe	\$36,054	\$37,795	\$0	\$0	\$0		\$0	#DIV/0!
Residential Study Abroad Undergraduate Regional Program Fee	\$26,426	\$28,374	\$0	\$0	\$0		\$0	#DIV/0!
Residential Study Abroad Undergraduate Proximity Program Fee	\$26,427	\$28,374	\$0	\$0	\$0		\$0	#DIV/0!
New - Graduate Tuition: DNP in Nursing (per cr.) (OCE supported)				\$0	\$0	\$570	0	0%

FY2020 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY2019-20	% Change FY2019-20
Administrative Fees								
Application Fee (In-State)	\$60	\$60	\$60	\$60	\$60	\$60	\$0	0.0%
Application Fee (Non-State)	\$65	\$65	\$65	\$65	\$65	\$65	\$0	0.0%
Registration Fee Law School	\$200	\$200	\$200	\$200	\$200	\$200	\$0	0.0%
Late Fee	\$50	\$50	\$50	\$60	\$60	\$60	\$0	0.0%
Late Registration Fee (graduate only)	\$100	\$100	\$100	\$100	\$100	\$100	\$0	0.0%
Transcript Fee-Freshman Only	\$100	\$100	\$100	\$100	\$100	\$100	\$0	0.0%
Transcript nondegree only	\$20	\$20	\$20	\$20	\$20	\$20	\$0	0.0%
ID (Replacement Only)	\$25	\$25	\$25	\$30	\$30	\$30	\$0	0.0%
Enrollment Deposit	\$200	\$200	\$200	\$200	\$200	\$200	\$0	0.0%

UNIVERSITY OF MASSACHUSETTS, LOWELL

STUDENT TUITION & FEE SCHEDULES

FY2020 TUITION & MANDATORY FEES

FY2020 NON-MANDATORY FEES

FY2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY2020 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

FY2020 TUITION & MANDATORY FEES
SUMMARY TABLE

	FY2018 Actual	FY2019 Actual	FY2020 Proposed	FY19-20 \$ change	FY19-20 % change
<u>UNDERGRADUATE</u>					
TUITION					
Undergraduate (in state)	\$14,350	\$14,710	\$15,078	\$368	2.5%
Undergraduate (out-of-state)	\$31,415	\$32,357	\$33,004	\$647	2.0%
Undergraduate (New England Regional)	\$25,029	\$25,971	\$26,618	\$647	2.5%
MANDATORY FEES					
Campus Technology Fee (Undergraduate and Graduate)	\$250	\$250	\$350	\$100	40.0%
Student Activity Fee (Undergraduate& Graduate)	\$200	\$220	\$220	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Undergraduate (in state)	\$14,800	\$15,180	\$15,648	\$468	3.1%
Undergraduate (out-of-state)	\$31,865	\$32,827	\$33,574	\$747	2.3%
Undergraduate (New England Regional)	\$25,479	\$26,441	\$27,188	\$747	2.8%
RESIDENTS ONLY					
Average Residence Hall Rent	\$8,254	\$8,400	\$8,610	\$210	2.5%
Average Board	\$4,242	\$4,348	\$4,450	\$102	2.3%
SUBTOTAL	\$12,495	\$12,748	\$13,060	\$312	2.4%
TOTAL TUITION AND ROOM & BOARD					
Undergraduate (in state)	\$27,295	\$27,928	\$28,708	\$780	2.8%
Undergraduate (out-of-state)	\$44,360	\$45,575	\$46,634	\$1,059	2.3%
Undergraduate (New England Regional)	\$37,974	\$39,189	\$40,248	\$1,059	2.7%
<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	\$250	\$350	\$100	40.0%
Student Activity Fee (Undergraduate& Graduate)	\$200	\$220	\$220	\$0	0.0%
TOTAL MANDATORY FEES & TUITION					
Graduate (in state)	\$15,040	\$15,060	\$15,160	\$100	0.7%
Graduate (out-of-state)	\$26,820	\$26,840	\$26,940	\$100	0.4%
Graduate (New England Regional)	\$22,851	\$22,871	\$22,971	\$100	0.4%
RESIDENTS ONLY					
Average Residence Hall Rent	\$8,254	\$8,400	\$8,610	\$210	2.5%
Average Board	\$4,242	\$4,348	\$4,450	\$102	2.3%
SUBTOTAL	\$12,495	\$12,748	\$13,060	\$312	2.4%
TOTAL TUITION AND ROOM & BOARD					
Graduate (in state)	\$27,536	\$27,808	\$28,220	\$412	1.5%
Graduate (out-of-state)	\$39,315	\$39,588	\$40,000	\$412	1.0%
Graduate (New England Regional)	\$35,346	\$35,619	\$36,031	\$412	1.2%

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

FY2020 NON-MANDATORY FEES

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY2018-19	% Change FY2018-19
<u>Administrative Fees</u>								
Mass PIRG (\$11/semester)	\$11	\$11	\$0	\$22	\$22	\$22	\$0	N/A
	\$0	\$0						
<u>International Fees</u>								
International Student Fee	\$550	\$550	\$1,000	\$1,000	\$1,000	\$1,000	\$0	0.0%
Hessen Exchange Program Fee	N/A	\$3,500	\$3,500	\$3,500	\$3,500	\$3,500	\$0	0.0%
Study Abroad Fee	N/A	\$300	\$300	\$300	\$300	\$300	\$0	0.0%
Faculty Led Study Abroad Fee**						Up to \$10,000		
<u>Health Fees</u>								
Student Health Insurance*	\$1,362	\$1,330	\$1,435	\$1,568	\$1,614	\$1,901	\$287	17.8%
<u>Program Fees</u>								
Nursing Testing Fee (cost per exam)	\$47 to \$80	\$47 to \$80	\$47 to \$80	\$47 to \$80	\$47 to \$80	\$47 to \$80		
Advanced Health Assessment Fee (Graduate) ***	\$400	\$400	\$400	\$450	\$450	\$450	\$0	0.0%
Ed. D Online Summer Residency Fee	N/A	N/A	\$850	\$850	\$850	\$850	\$0	0.0%
M.Ed. Curriculum & Instruction Pre-Practicum Charge	\$150	\$150	\$150	\$150	\$150	\$150	\$0	0.0%
	\$300	\$300						
	\$200	\$200						
	\$200	\$200						
<u>Differential Tuition Charges</u>								
Francis College of Engineering Fee	\$550	\$600	\$750	\$875	\$950	\$950	\$0	0.0%
Kennedy School of Sciences Fee	\$550	\$570	\$600	\$670	\$745	\$745	\$0	0.0%
Music Fee	\$650	\$670	\$670	\$670	\$670	\$700	\$30	4.5%
Art Fee	\$400	\$500	\$500	\$500	\$500	\$700	\$200	40.0%
College of Education Fee (Undergrad & Grad)						\$300	\$300	
Honors College Fee						\$100	\$100	
Manning School of Business Fee	\$220	\$240	\$450	\$670	\$700	\$700	\$0	0.0%
Zuckerberg College of Health Sciences Fee	\$550	\$600	\$600	\$670	\$700	\$700	\$0	0.0%
Solomont School of Nursing Fee				\$0	\$0	\$1,000	\$1,000	

* Mass PIRG charges are subject to student referenda. Inactive in AY2016-17.
There will only be a charge if a majority of students vote in favor of fee.

*Includes \$20 School Specific Fee

FY2020 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY2019-20	% Change FY2019-20
SALES & SERVICE AND ADMINISTRATIVE CHARGES								
Administrative Fees								
Application Fee: Resident	\$60	\$60	\$60	\$60	\$60	\$60	\$0	0.0%
Non-Resident	\$60	\$60	\$60	\$60	\$60	\$60	\$0	0.0%
Graduate Certificate	\$50	\$50	\$50	\$50	\$50	\$50	\$0	0.0%
	\$60	\$60						
Returned Check Fee (Per Check)	\$30	\$30	\$30	\$30	\$30	\$30	\$0	0.0%
Late Fee (per Semester)	\$50	\$50	\$50	\$50	\$50	\$50	\$0	0.0%
Follett/includED Pilot Course Fee Program								
French 1	N/A	\$122						
Spanish 1	N/A	\$113						
Continued Matriculation Fee (per Semester)	\$85	\$85						
Library:								
Overdue Reserve (per day/maximum)	.25/\$15	.25/\$15	.25/\$15					
Lost Book Processing	\$30	\$30	\$30	\$30	\$30	\$30	\$0	0.0%
Replacement Book	\$130	\$130	\$130	\$130	\$130	\$130	\$0	0.0%
Lost Reserve Folder	\$30	\$30	\$30	\$30	\$30	\$30	\$0	0.0%
Corporate Library Patron	\$200	\$200	\$200	\$200	\$200	\$200	\$0	0.0%
Dissertation Archival Fee						\$50		
International Fees								
International Scholars Visa Service Charges								
One-time J1 processing	N/A	\$450	\$450					
H-1B (each time, new or extention)	N/A	\$1,100	\$1,100					
O-1 - First Time	N/A	\$2,000	\$2,000					
O-1 - Extention	N/A	\$1,100	\$1,100					
Permanent Resident, each category	N/A	\$2,000	\$2,000					
TN	N/A	\$150	\$150					
Trust Fund Overhead Charge	up to 12.5%	up to 20%	up to 20%	up to 20%	up to 20%	up to 20%	\$0	0.0%
Athletics:								
Basketball:								

FY2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY2019-20	% Change FY2019-20
AUXILIARY CHARGES								
Auxiliary Fees								
<u>Residence Halls Rooms:****</u>								
<u>Rate A</u>								
Concordia Double	\$7,450	\$7,710	\$7,975	\$8,254	\$8,400	\$8,610	\$210	2.5%
Fox Triple /Quad	\$7,450	\$7,710	\$7,975	\$8,254	\$8,400	\$8,610	\$210	2.5%
Leitch & Bourgeois Quad	\$7,945	\$8,050	\$7,975	\$8,254	\$8,400	\$8,610	\$210	2.5%
<u>Rate B</u>								
Fox Double	\$7,600	\$7,900	\$8,550	\$8,849	\$8,500	\$8,750	\$250	2.9%
<u>Rate C</u>								
Fox Enhanced Double	\$8,150	\$8,175	\$8,550	\$8,849	\$8,650	\$8,870	\$220	2.5%
Leitch & Bourgeois Double	\$8,200	\$8,200	\$8,550	\$8,849	\$8,650	\$8,870	\$220	2.5%
<u>Rate D</u>								
ICC Double (& Quad)	\$8,800	\$9,110	\$9,425	\$9,755	\$9,250	\$9,500	\$250	2.7%
ICC Triple	\$8,200	\$8,175						
<u>Rate E</u>								
River Hawk Village Traditional				\$9,755	\$9,950	\$10,200	\$250	2.5%
Sheehy Suite	\$8,600	\$8,925	\$9,500	\$9,833	\$9,950	\$10,200	\$250	2.5%
<u>Rate F</u>								
Donahue Suites	\$8,650	\$8,950	\$9,500	\$9,833	\$10,350	\$10,600	\$250	2.4%
Concordia Singles	\$8,800	\$9,110	\$9,425	\$9,755	\$9,950	\$10,600	\$650	6.5%
Fox Special Single					\$9,950	\$10,600	\$650	6.5%
<u>Rate G</u>								
Riverview Suites East			\$10,500	\$10,868	\$10,868	\$11,150	\$282	2.6%
<u>Rate H</u>								
University Suites	\$9,900	\$10,560	\$10,650	\$11,023	\$10,950	\$11,250	\$300	2.7%
USuites Double	\$9,900	\$10,250						
<u>Rate I</u>								
Merrimack Double	\$9,900	\$10,235	\$10,650	\$11,023	\$11,123	\$11,450	\$327	2.9%
Riverview Suites West			\$10,950	\$11,333	\$11,123	\$11,450	\$327	2.9%
<u>Rate J</u>								
River Hawk Village Standard				\$11,023	\$11,333	\$11,650	\$317	2.8%
1301 Middlesex			\$10,950	\$11,333	\$11,333	\$11,650	\$317	2.8%
Merrimack Single	\$10,200	\$10,560	\$10,950	\$11,333	\$11,333	\$11,650	\$317	2.8%
<u>Rate K</u>								
River Hawk Village Delux	\$10,200	\$10,560		\$11,333	\$11,600	\$11,900	\$300	2.6%
River Hawk Village Delux Townhouse	N/A	\$10,175		\$11,851	\$11,600	\$11,900	\$300	2.6%
Princeton Apt Single	\$9,650	\$9,990						
Moody Double	\$9,900	\$10,235						
Moody Single	\$10,200	\$10,560						
Meal Plan Options:								
Platinum Unlimited + 350 points and 8 guest meals	\$4,356	\$4,510	\$4,668	\$4,832	\$4,988	\$5,120	\$132	2.6%
Gold Unlimited + 200 points and 8 guest meals	\$4,199	\$4,350	\$4,502	\$4,660	\$4,812	\$4,940	\$128	2.7%
Silver 125 Block Meals and \$450 points and 5 guest meals			\$4,098	\$4,242	\$4,348	\$4,450	\$102	2.3%
100 Block Meals and \$350 points and 5 guest meals	\$3,828	\$3,960						
Program Fees (Continuing Education)								
Continuing Studies/Corporate Education Tuition/Fees: *								
Undergrad Tuition per Credit Hour face to face**	\$335	\$340	\$340	\$340	\$340	Up to \$360	\$0	0.0%
Graduate Tuition per Credit Hour face to face	\$545	\$570	\$575	\$575	\$575	Up to \$630	\$0	0.0%
Undergrad Tuition (High Tech/Corporate)	290-365	290-370	\$450	\$450	\$450	Up to \$450	\$0	0.0%
Undergrad Tuition (Online) per credit hour	\$365	\$370	\$375	\$380	\$380	Up to \$400	\$0	0.0%
MSB Undergraduate Online Courses and Audit			\$375	\$385	\$385	Up to \$425	\$0	0.0%
Graduate Tuition (Online) per credit hour	\$545	\$570	\$575	\$575	\$575	Up to \$630	\$0	0.0%
Graduate Tuition (MBA, Online & On-campus) distance per c	\$600	\$630	\$640	\$655	\$655	Up to \$725	\$0	0.0%

FY2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY2019-20	% Change FY2019-20
Graduate Tuition (Education) per credit hour	\$470	\$470	\$470	\$470	\$470	Up to \$500	\$0	0.0%
MSIT and Masters in Engineering Management Program Pricing Pilot***			\$575	\$590	\$590	Up to \$625	\$0	0.0%
Application Fee	\$60	\$60	\$60	\$60	\$60	Up to \$75	\$0	0.0%
Registration Fee	\$30	\$30	\$30	\$30	\$30	\$30	\$0	0.0%
CAS Engineering Application Fee+						\$75		
Late Registration Fee	\$50	\$50	\$50	\$50	\$50	\$50	\$0	0.0%
Returned Check Fee	\$30	\$30	\$30	\$30	\$30	\$30	\$0	0.0%
Parking Fees:								
b Faculty/Staff (per contracts)	\$200	\$300	\$350	\$350	\$375	\$400	\$25	6.7%
c Adjunct Faculty	\$80	up to \$150	\$80	\$80	\$110	\$110	\$0	0.0%
d Part-time Staff	\$80	\$150	\$175	\$175	\$175	\$175	\$0	0.0%
e Reserved/Designated Parking	up to \$1,000	up to \$1,100	\$1,200	\$1,300	\$1,300	\$1,400	\$100	7.7%
f Resident Students	up to \$400	up to \$450	Up to \$450	Up to \$450	Up to \$450	Up to \$450	\$0	0.0%
Commuter Students	up to \$400	up to \$450	Up to \$450	Up to \$450	Up to \$450	Up to \$450	\$0	0.0%
Vendor/Visitor	up to \$192	up to \$288						

* 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:

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

d 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.

e,f Eff 9/1/19: Cabinet members, \$1,400; Salem Lot and East Courtyard Preferred, \$700; Tremont, Cabot & West Courtyards Preferred, \$600

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

Parking Fines: minimum, \$25; snow emergency parking violation, and new students accepted AFTER 2014-15, \$450 (no increase)

Handicapped parking violations, \$100.

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL

STUDENT TUITION & FEE SCHEDULES

FY 2020 TUITION & MANDATORY FEES

FY 2020 NON-MANDATORY FEES

FY 2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

FY 2020 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

FY 2020 TUITION & MANDATORY FEES
SUMMARY TABLE

	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY 2019 - 20	% Change FY 2019 - 20
TUITION					
Medical School - (in-state)	\$34,600	\$35,500	\$36,030	\$530	1.5%
Medical School (out-of-state)	\$59,400	\$61,050	\$61,960	\$910	1.5%
Graduate School of Nursing: *					
In state students	\$13,500	\$13,870	\$14,064	\$194	1.4%
NE Regional	\$16,740	\$17,200	\$17,444	\$244	1.4%
Out of state	\$18,450	\$18,960	\$19,230	\$270	1.4%
GSN Graduate Entry Program (year 1):					
In state students	\$42,000	\$43,220	\$43,854	\$634	1.5%
NE Regional	\$48,000	\$49,400	\$50,128	\$728	1.5%
Out of state	\$54,000	\$55,580	\$56,400	\$820	1.5%
Grad. School of Biomedical Science (in-state)	\$13,930	\$14,300	\$14,506	\$206	1.4%
Grad. School of Biomedical Science(out-of-state)	\$30,533	\$31,400	\$31,862	\$462	1.5%
MANDATORY FEES					
Equipment Fee (Medical & Nursing Schools)	\$325	\$325	\$334	\$9	2.8%
Assessment Fee (Medical School)	\$600	\$600	\$600	\$0	0.0%
Certification Fee (Medical School)	N/A	\$120	\$120	\$0	0.0%
Simulation Fee (CELS) (Medical School)	\$200	\$200	\$206	\$6	3.0%
Health / Counseling Fee (All Schools)	\$758	\$836	\$861	\$25	3.0%
Student Services Fee (All Schools)	\$195	\$195	\$195	\$0	0.0%
SUBTOTAL OTHER MANDATORY FEES					
Medical School	\$2,078	\$2,276	\$2,316	\$40	1.8%
Graduate School of Nursing	\$1,278	\$1,356	\$1,390	\$34	2.5%
Graduate School of Biomedical Science	\$953	\$1,031	\$1,056	\$25	2.4%
TOTAL MANDATORY FEES & TUITION					
Medical School - (in-state)	\$36,678	\$37,776	\$38,346	\$570	1.5%
Medical School (out-of-state)	\$61,478	\$63,326	\$64,276	\$950	1.5%
Graduate School of Nursing (in-state)	\$14,778	\$15,226	\$15,454	\$228	1.5%
Graduate School of Nursing (NE regional)	\$18,018	\$18,556	\$18,834	\$278	1.5%
Graduate School of Nursing (out-of-state)	\$19,728	\$20,316	\$20,620	\$304	1.5%
GSN Graduate Entry Program (in-state)	\$43,278	\$44,576	\$45,244	\$668	1.5%
GSN Graduate Entry Program (NE regional)	\$49,278	\$50,756	\$51,518	\$762	1.5%
GSN Graduate Entry Program (out-of-state)	\$55,278	\$56,936	\$57,790	\$854	1.5%
Grad. School of Biomedical Science (in-state)	\$14,883	\$15,331	\$15,562	\$231	1.5%
Grad. School of Biomedical Science(out-of-state)	\$31,486	\$32,431	\$32,918	\$487	1.5%

* Based on 18 credits

FY 2020 NON-MANDATORY FEES

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY 2019 - 20	% Change FY 2019 - 20
Ph.D./MD (in-state) *****				34,600	35,500	36,030	\$530	1.5%
Ph.D./MD Years 1-2 (out-of-state) *****				59,400	61,050	61,960	\$910	1.5%
Ph.D./MD Years 3+ (out-of-state) *****				59,400	61,050	61,960	\$910	1.5%
Administrative Fees:								
Commencement Fee	\$200	\$200	\$252	\$252	\$252	\$252	\$0	0.0%
Extension Fee - Medical Students (in-state)***	\$5,500	\$5,500	\$22,990	\$22,990	\$23,680	\$24,034	\$354	1.5%
Extension Fee - Medical Students (out-of-state)***				N/A	\$40,730	\$41,340	\$610	1.5%
Diagnostic Instruments - Medical Students				N/A	\$800	\$800	\$0	0.0%
FSSC Fee (Nursing School acute subspecialties)	\$285	\$350	\$350	\$350	\$350	\$350	\$0	0.0%
Typhon Software (Education Tracking Software - Nursing School)	\$100	\$100	\$100	\$125	\$125	\$128	\$3	2.4%
Graduate Entry Program NCLEX Exam Fee	\$1,125.00	\$1,125.00	\$1,125.00					
Graduate Entry Program ATI Fee (On-line modules for GEP Nursing Students)				\$1,165	\$1,200	\$1,236	\$36	3.0%
Nursing Leadership Fee (Nursing School)				\$140	\$140	\$140	\$0	0.0%
Standardized Patient M/F Experience (Nursing School)	\$325	\$325	\$325					
Program Fees:								
Doctoral Continuation Fee - Graduate School of Nursing **	\$1,350	\$1,350	\$1,650	\$2,250	\$2,250	\$2,318	\$68	3.0%
Elective Fee - Medical School	\$500	\$600	\$600	\$65	\$100	\$103	\$3	3.0%
Elective Fee - International - Medical School	\$50	\$100	\$100	\$500	\$1,000	\$1,000	\$0	0.0%
Continuing Course Fee - Graduate School of Nursing	\$100	\$100	\$100	\$100	\$100	\$100	\$0	0.0%
Program Fee - PhD/MD and Grad School of Biomed. Sci. **	\$90	\$90	\$90	\$90	\$100	\$100	\$0	0.0%
On-line Technology Fee - Graduate School of Nursing				N/A	\$25	\$25	\$0	0.0%
Lab Fees:								
Acute Care Lab Fee (Nursing School)	\$450	\$450	\$450	\$450	\$450	\$450	\$0	0.0%
Advanced Health Assessment (Nursing School)				\$1,000	\$1,000	\$1,000	\$0	0.0%
Clinical Lab Fee (Nursing School clinical year only)			\$1,500	\$2,000	\$2,000	\$2,000	\$0	0.0%
Health Assessment Lab Fee (Nursing School)				\$495	\$495	\$495	\$0	0.0%
Standardized Patient Lab Fee (Nursing School)				\$175	\$175	\$175	\$0	0.0%
Health Fees:								
Disability Insurance*	\$72	\$72	\$72	\$72	\$72	\$72	\$0	0.0%
Supplemental Health Insurance ****	\$3,772	\$3,702	\$3,850	\$4,207	\$4,357	\$4,050	(\$307)	-7.0%

* 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 2020 STUDENT FEES FOR REVENUE-BASED OPERATIONS

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY 2019 - 20	% Change FY 2019 - 20
Grad School of Nursing On-line (per unit)	N/A	N/A	\$700	\$750	\$775	\$781	\$6	0.8%
Grad School of Nursing On-line registration Fee	N/A	N/A	\$30					

FY 2020 ADMINISTRATIVE CHARGES INCLUDING SALES & SERVICES

	FY2015 Actual	FY2016 Actual	FY2017 Actual	FY2018 Actual	FY2019 Actual	FY2020 Proposed	\$ Change FY 2019 - 20	% Change FY 2019 - 20
Administrative Fees:								
Application Fee - Medical School	\$100	\$100	\$100	\$100	\$100	\$100	\$0	0.0%
Elective Application Fee - International - Medical School	\$0	\$0	\$0	\$100	\$200	\$200	\$0	0.0%
Application Fee - Grad. Sch. of Nursing	\$75	\$75	\$75	\$75	\$100	\$100	\$0	0.0%
Application Fee - Grad. Sch. of Nursing (Mass. Residents)	\$60	\$60	\$60	\$0	\$0	\$0	\$0	0.0%
Application Fee - Grad. Sch. of Biomed. Sci.	\$80	\$80	\$80	\$80	\$80	\$80	\$0	0.0%
GSN Registration Fee (non-matrices only)	\$30	\$30	\$30	\$30	\$30	\$30	\$0	0.0%
Late Registration / Late Payment	\$50	\$50	\$50	\$50	\$50	\$50	\$0	0.0%

Appendix C: Annual Financial Report

University of Massachusetts
ANNUAL FINANCIAL REPORT
2019



University of Massachusetts

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



University of Massachusetts
ANNUAL FINANCIAL REPORT 2019

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UNIVERSITY ADMINISTRATION

As of November 2019

BOARD OF TRUSTEES

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Swampscott, MA

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Paxton, MA

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Interim Chancellor, UMass Boston

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Chancellor, UMass Dartmouth

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Chancellor, UMass Lowell

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Senior Vice President for Health Sciences

James R. Julian, JD

Executive Vice President and
Chief Operating Officer

Lisa A. Calise

Senior Vice President for Administration
and Finance & Treasurer

Zunilka M. Barrett

Secretary to the Board of Trustees



December 18, 2019

I am pleased to present the annual financial report of the University of Massachusetts, which outlines the university's financial activities over the past year and serves to underscore our long-held commitment to fiscal management and accountability.

As the Commonwealth's public research university, UMass continues to be a beacon of excellence and is widely recognized for its highly engaged faculty, rigorous academic offerings and groundbreaking research.

This year, UMass has maintained its position among top-ranked campuses by *U.S. News & World Report*, remaining one of the only university systems in the country with all of its undergraduate campuses in the top tier. For the fourth consecutive year, UMass was named to *Reuters'* list of the World's Most Innovative Universities, placing it among the institutions doing the most to advance science, invent new technologies and power new markets.

With more than 300,000 alumni living in Massachusetts and roughly 18,000 students graduating every year, UMass is the single-largest contributor to the Massachusetts workforce. UMass continues to educate and prepare students for careers in high-demand fields, like healthcare, engineering and computer science.

Alongside this growth, UMass has remained unwavering in our mission to maintain affordability, increasing our own commitment to institutional financial aid to a record high \$347 million this year.

We also continue to take our responsibility to prudently manage the university's resources seriously. We have established accountability in finance structures, increased transparency and more effectively managed operating costs across the five campuses. Over the past year, the university has maintained its strong bond ratings, with an Aa2 rating from Moody's, an AA- rating from S&P and an AA rating by Fitch. These reports reflect continued confidence in the institution's overall financial health, bucking the trend for colleges and universities nationwide and highlighting our own effective stewardship.

Additionally, we are implementing a Unified Procurement Services Team, which will continue to realize efficiencies in our operations. Over the first 18 months alone, we expect to realize \$16.5 million in savings, with more to come in subsequent years as additional areas of opportunity are identified.

With the dedication of students, faculty and staff across our five campuses, we will ensure UMass continues to fulfill its critical mission of affordability, opportunity and service to the Commonwealth.

Martin T. Meehan
President



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

Independent Auditors' Report

Board of Trustees of the
University of Massachusetts:

Report on the 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 year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the University's basic financial statements for the year 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 audit. We conducted our audit 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, 2019, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with U.S. generally accepted accounting principles.

KPMG LLP is a Delaware limited liability partnership and the U.S. member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.



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, 2019, the changes in its financial position, or where applicable, its cash flows for the year then ended in conformity with U.S. generally accepted accounting principles. Our opinion is not modified with respect to this matter.

Other Matters

2018 Financial Statements

The accompanying financial statements of the University of Massachusetts as of and for the year ended June 30, 2018 were audited by other auditors whose report thereon, expressed an unmodified opinion on those financial statements.

Required Supplementary Information

U.S. generally accepted accounting principles require that the Management's Discussion and Analysis on pages 6-15 and the Schedules of the University's Proportionate Share of the Net Pension and Other Post Employment Benefit Liabilities and the Schedules of the University's Contributions on pages 54-55 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 required supplementary information 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 18, 2019 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 on the effectiveness of the University's opinion on 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 18, 2019

Management's Discussion and Analysis (unaudited)

June 30, 2019

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, 2019 and 2018, 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 24th among the nation's top public schools in the 2020 *U.S. News & World Report*.

UMass Boston is nationally recognized as a model of excellence for urban public research universities. Located on Boston Harbor, it is the metropolitan area's only public

research university. UMass Boston's distinguished intellectual contributions span the social sciences, education, health and wellness. With a student population that represents 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, 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 2018 Massachusetts first-time bar passage rate was 92.6%, the third highest passage rate of the Massachusetts law schools.

UMass Lowell is ranked 179th among the National Universities Rankings within the 2020 *U.S. News & World Report*, with programs supporting workforce and economic development through innovation, entrepreneurship and public-private partnerships. UMass Lowell prepares students emphasizing experiential learning through cooperative education, service and research.

UMass Medical School (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. Consistently ranked in the top 10 percent for primary care training according to *U.S. News & World Report*, 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, 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, features more than 1,500 online courses and 150 online certificate and degree programs from the five UMass campuses. Since its founding in 2001, UMassOnline continues to grow, with over 80,000 course enrollments across the five campuses. 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*.

Financial highlights

The University's combined net position increased \$114.0 million from \$2.4 billion in fiscal year 2018 to \$2.5 billion in fiscal year 2019.

The University's income before other revenues, expenses, gains, and losses was \$78.1 million for fiscal year 2019. Excluding the impact on operating expenses for both 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), the University's income before other revenues, expenses, gains, and losses was \$108.2 million.

From fiscal year 2018 to fiscal year 2019, the University's operating revenues decreased by \$15.5 million driven primarily by a decrease in revenue generated from public service activities provided by UMMS through

its Commonwealth Medicine (CWM) programs offset by increases in grant and contract revenues. Operating expenses decreased by \$29.6 million primarily driven by the decrease in expenses related to public service activities, which can be directly correlated to the decrease in revenues for these activities. Non-operating revenues increased \$61.1 million primarily attributed to an increase in state appropriations and strong investment performance.

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, 2019 and 2018. 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 or erosion of an institution's financial health when considered together with non-financial factors such as enrollment levels and the condition of the facilities.

The Statements of Net Position include all assets and liabilities, as well as deferred inflows and outflows of resources of the University. Net position is further broken down into three categories: net investment in capital



assets, restricted and unrestricted. Amounts reported in net investment in capital assets represent the historical cost of property and equipment, reduced by the balance of related debt outstanding and depreciation expense charged over the years. Net position is reported as restricted when constraints are imposed by third parties, such as donors or enabling legislation. Restricted net position is either non-expendable, as in the case of endowment gifts to be held in perpetuity, or expendable, as in the case of funds to be spent on scholarships and research. All other assets are unrestricted; however, they may be committed for use under contract or designation by the Board of Trustees (the Board). Note 15 to the accompanying financial statements depicts the designations of unrestricted net position at June 30, 2019 and 2018, respectively.

The 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 and expenses 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 long-lived assets, referred to as capital assets, is reflected in the financial statements as depreciation expense, which amortizes the cost of a capital asset over its expected useful life.

Another important factor to consider when evaluating financial viability is the University's ability to meet financial obligations as they mature. The Statements of Cash Flows present information related to cash inflows and outflows summarized by operating, capital and non-capital, financing and investing activities.

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), and the University of Massachusetts Amherst Foundation. 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., and the University of Massachusetts Dartmouth Foundation, Inc. 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.

Net position

Condensed statements of net position at June 30, 2019, 2018, and 2017, respectively, are presented on page 9.

At June 30, 2019, total net position was \$2.5 billion. The University's largest asset continues to be its capital assets, net of accumulated depreciation, of \$5.2 billion at June 30, 2019, \$5.1 billion at June 30, 2018 and \$4.9 billion at June 30, 2017.

Liabilities totaled \$4.9 billion at June 30, 2019, a decrease of \$236.5 million over fiscal year 2018. Long-term liabilities represent 84% of total liabilities at June 30, 2019, primarily consisting of \$2.7 billion of long-term debt and \$1.1 billion of pension and other postemployment benefit (OPEB) liabilities.

The University's current assets at June 30, 2019 of \$921.6 million exceeded current liabilities of \$799.3 million, and as a result the current ratio was \$1.15 in assets to every one dollar in liabilities. This is due to a decrease of the current portion of long-term debt related to the refinancing of debt in 2019. At June 30, 2018, current assets of \$918.7 million were less than current liabilities of \$934.5 million, resulting in a current ratio of \$0.98. At June 30, 2017, current assets of \$742.5 million exceeded current liabilities of \$662.1 million, resulting in a current ratio of \$1.19.

Revenues, expenses, and changes in net position

Condensed statements of revenues, expenses, and changes in net position for the three years ended June 30, 2019, 2018, and 2017, are presented on page 9.

CONDENSED STATEMENTS OF NET POSITION

As of June 30, 2019, 2018, and 2017 (\$ in thousands)	2019	2018	2017
Assets			
Current assets	\$ 921,582	\$ 918,685	\$ 742,482
Noncurrent assets			
Capital assets, net	5,164,200	5,075,476	4,854,110
All other noncurrent assets	1,281,662	1,291,309	1,404,203
Total assets	7,367,444	7,285,470	7,000,795
Deferred outflows of resources	356,683	341,335	275,725
Liabilities			
Current liabilities	799,310	934,525	622,084
Noncurrent liabilities	4,060,669	4,161,911	3,562,485
Total liabilities	4,859,979	5,096,436	4,184,569
Deferred inflows of resources	361,245	141,485	37,671
Net position			
Net investment in capital assets	2,343,872	2,288,599	2,208,370
Restricted:			
Nonexpendable	28,617	28,022	27,443
Expendable	206,023	222,343	201,710
Unrestricted	(75,609)	(150,080)	616,757
Total net position	\$ 2,502,903	\$ 2,388,884	\$ 3,054,280

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

As of June 30, 2019, 2018, 2017 (\$ in thousands)	2019	2018	2017
Operating revenues			
Tuition and fees, net of scholarships	\$ 894,904	\$ 874,826	\$ 847,832
Grants and contracts	593,086	560,990	560,081
Auxiliary enterprises	441,795	416,733	400,822
Other operating revenues	523,569	616,265	631,854
Total operating revenues	2,453,354	2,468,814	2,440,589
Operating expenses	3,270,790	3,300,392	3,158,953
Operating loss	(817,436)	(831,578)	(718,364)
Nonoperating revenues (expenses)			
Federal appropriations	7,004	6,688	6,602
State appropriations	780,221	751,894	720,817
Interest on indebtedness	(116,217)	(115,851)	(110,069)
Nonoperating federal grants	84,454	81,590	74,050
Other nonoperating income	140,047	110,062	117,248
Total nonoperating revenues (expenses)	895,509	834,383	808,648
Income before other revenues, expenses, gains and losses	78,073	2,805	90,284
Other Revenues, Expenses, Gains and Losses			
Capital appropriations, grants and other sources	38,665	76,169	150,460
Other (deductions) additions	(2,719)	(1,388)	13,443
Total other revenues, expenses, gains, and losses	35,946	74,781	163,903
Total increase in net position	114,019	77,586	254,187
Net position			
Net position at the beginning of the year	2,388,884	3,054,280	2,800,093
Cumulative effect of adopting GASB 75*	-	(742,982)	-
Net position at the beginning of the year, restated	2,388,884	2,311,298	2,800,093
Net position at the end of the year	\$ 2,502,903	\$ 2,388,884	\$ 3,054,280

* Refer to Note 13 of the accompanying financial statements for further discussion related to the adoption of GASB 75

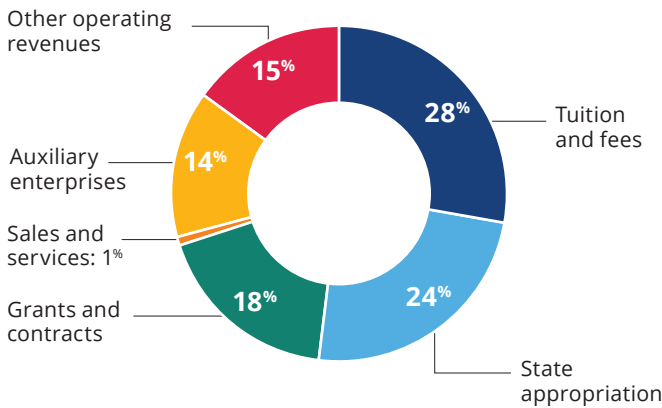
Operating revenues and expenses

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 as operating revenue for management's planning and analysis purposes. Total operating revenues, including state appropriations, increased \$12.9 million (0.4%) from \$3.2 billion in fiscal year 2018 to \$3.2 billion in FY19. Total operating revenues in fiscal year 2018, including state appropriations, increased \$59.3 million (1.9%) from \$3.2 billion in fiscal year 2017.

As noted in the fiscal year 2019 operating revenues chart below, over 50% of the University's operating revenues were from tuition and fees and state appropriations.

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.

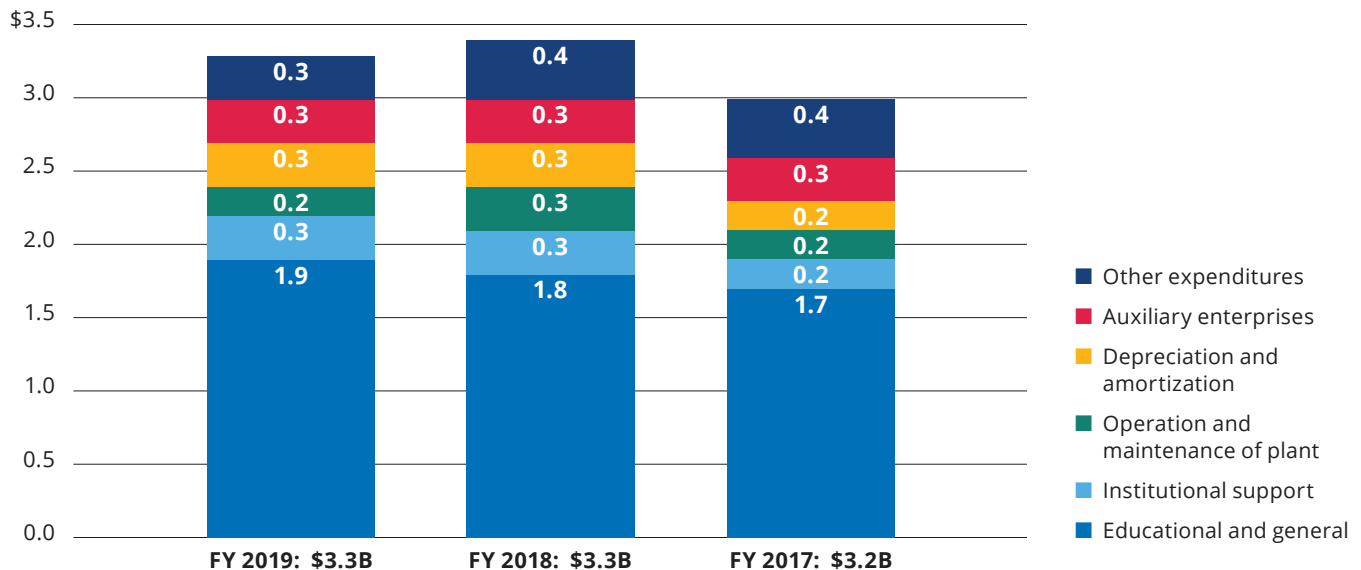
FISCAL YEAR 2019 OPERATING REVENUES (including State Appropriations)



In fiscal year 2019, operating expenses, including depreciation and amortization, totaled \$3.3 billion, as compared to \$3.3 billion in 2018 and \$3.2 billion in 2017. Of the fiscal year 2019 total, \$1.9 billion or 57% was used to support the academic core activities of the University, including \$487.7 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 expenditures 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 fiscal year 2019, state appropriations represented approximately 23% 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 operating appropriations. These amounts are not included in state appropriations.

The University's state appropriations including fringe benefits increased in fiscal year 2019 by \$28.3 million from fiscal year 2018 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, 2019, 2018, and 2017:

STATE APPROPRIATIONS

(\$ in thousands)

	FY 2019	FY 2018	FY 2017
State appropriations	\$ 551,953	\$ 528,868	\$ 512,900
Plus: fringe benefits	228,268	223,026	207,917
Commonwealth support	\$ 780,221	\$ 751,894	\$ 720,817

State capital appropriations

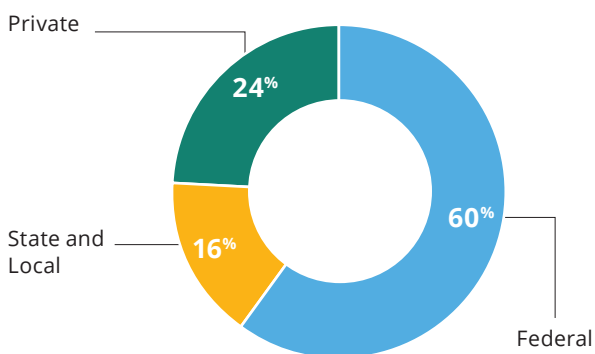
The University faces a financial challenge to maintain and upgrade its capital assets including its infrastructure, buildings and grounds. In order to have a successful capital program, the University must rely on a combination of revenue sources to fund its capital investments. In fiscal years 2019, 2018 and 2017, the capital support provided to the University through appropriations and grants from the Commonwealth was \$25.5 million, \$67.4 million and \$121.4 million, respectively. Beginning in fiscal year 2019, 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. The Commonwealth's fiscal year 2019 capital plan included approved projects from the prior year and the following new capital investments.

- Major Projects - Science and Engineering Building Renovation at Dartmouth for \$25 million.
- Critical Repairs - UMass is expected to receive \$75 million over the next five years to fund small-scale critical repairs (deferred maintenance) projects across the five campuses.

Grant and contract revenue

Among Massachusetts colleges and universities, the University ranks fourth in research and development expenditures, behind only MIT, Harvard, and Boston 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.

GRANT AND CONTRACT REVENUE FY2019



Collectively, UMass Amherst and UMass Medical School account for approximately 76% of the University's total research enterprise of \$593.1 million. The chart below details the University's grant and contract revenues by source for the year ended June 30, 2019.

Discretely presented component units

The University's financial statements include the financial information of the University's discretely presented component units, the University of Massachusetts Foundation, Inc. (UMF) and the University of Massachusetts Dartmouth Foundation, Inc. (UMDF). Further information about these foundations can be found in Notes 1 and 18 to the accompanying financial statements. Additionally, the individual financial statements of each foundation can be obtained by contacting the foundations directly: jmurphy@umassp.edu 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 portfolio held at UMF at June 30, 2019, 2018 and 2017 was \$973.3 million, \$871.9 million and \$819.7 million, respectively.

University of Massachusetts Dartmouth Foundation, Inc.

UMDF was established in 1973 to raise funds for the development and improvement of the academic and educational environment for students at the Dartmouth campus and the continued engagement of its alumni. In addition to holding investments for the University, UMF holds a significant portion of the UMDF investments. The total portfolio held by UMDF at June 30, 2019, 2018 and 2017 was \$56.4 million, \$54.8 million and \$53.1 million, of which the majority is invested with UMF.

Tuition and fees

For academic year 2018–2019, tuition was raised an average of 2.5% for in-state undergraduate students over the prior year. For academic year 2017–2018, tuition was raised on average 3.0% 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.

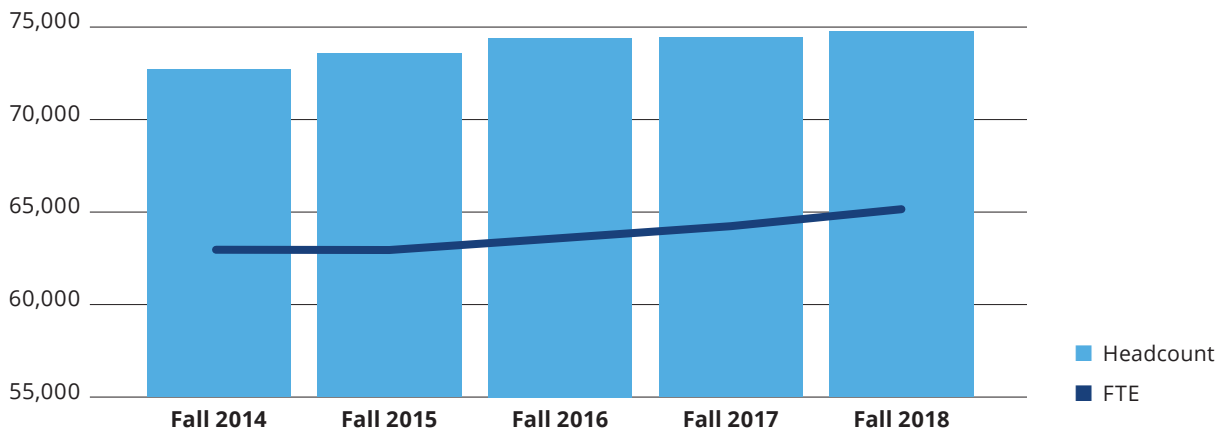
Enrollment

As shown in the table below, total enrollment in the fall of 2018 was 65,346 FTE (74,705 headcount students), an increase of 1.3% over the previous year's enrollment of 64,530 FTE (74,572 headcount students). Enrollment in the fall of 2016 was 63,977 FTE (74,496 headcount students). The five year enrollment growth of 4.7% 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 education provided by the University of Massachusetts.

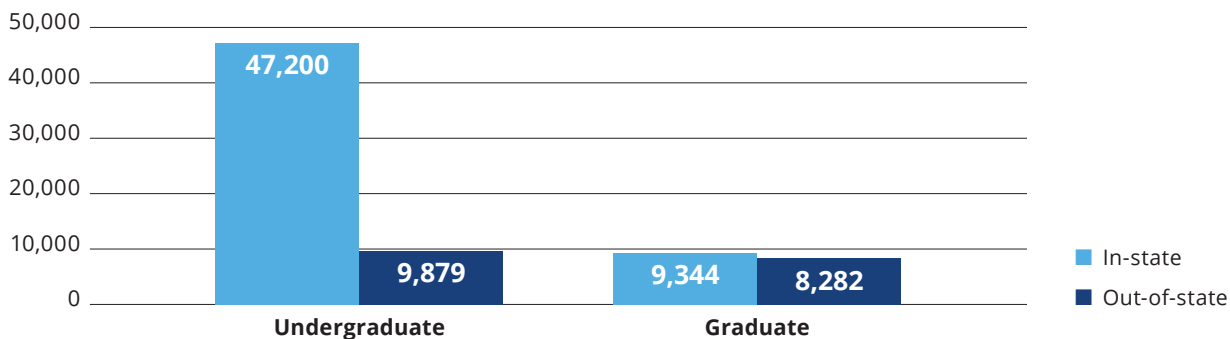
Admission to the University is open to residents of the Commonwealth and non-residents on a competitive basis. For the fall semester, Massachusetts residents accounted for 83.5% and 82.6% of the University's total undergraduate enrollment in Fall 2018 and Fall 2017, respectively as shown in the table below.

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 UMass' online offerings that enable students, professionals, and lifelong learners to take courses anywhere, anytime. For fiscal year 2019, UMassOnline and the Continuing Education units at the five campuses collaboratively generated tuition revenue of \$116.1 million and supported 80,399 course enrollments, an increase of 2.6% for revenue and an increase of 2.5% for course enrollments as compared to fiscal year 2018. For fiscal year 2018, UMassOnline generated tuition revenue of \$113.2 million and supported 78,404 course enrollments, an increase of 7.9% for revenue and an increase of 3.8% for course enrollments as compared to fiscal year 2017.

TOTAL ENROLLMENT



FALL 2018 ENROLLMENT BY TYPE



Long-term debt

Long-term debt is the University's largest liability at June 30, 2019, 2018 and 2017. The University had outstanding debt of \$3.0 billion at June 30, 2019, and \$3.1 billion at June 30, 2018 and 2017. 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) and Worcester City Campus Corporation.

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

During fiscal year 2018, Moody's revised the University's outlook from negative to stable citing the University's strong management team, steady enrollment, positive operating performance, growth in financial resources and manageable plans for future borrowing. The Moody's rating exceeds some of the University's peer public research universities in New England. The stable outlook for the University is also notable because Moody's revised its rating for the higher education industry to negative in December 2017, noting that negative rating actions are 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 policy, each campus' outstanding debt 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, 2019, 2018 and 2017 was \$111.1 million, \$113.5 million and \$115.3 million, respectively.

Capital plan

A majority of the capital spending during fiscal year 2019 related to continued investments in deferred maintenance. In September 2018, the Board approved an updated five-year capital plan for fiscal years 2019–2023 totaling \$2.1 billion. The University's capital plan is funded through a combination of



University operations, bonds issued by the Building Authority and MHEFA, Commonwealth appropriations, and private fundraising.

The University's five-year capital plan for fiscal years 2019-2023 includes major projects that were previously approved by the Board in prior-year capital plans. The University's capital approval process provides for a two-step review process involving the President's Office, the Building Authority and the Board. Additional approvals have been put in place for any capital project seeking alternative funding and/or delivery options.

Factors impacting future periods

There are a number of issues of University-wide importance that directly impact the financial operations of the University. Many of these 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 and budget 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, at (617) 287-6017 or by email at bcevallos@umassp.edu.

STATEMENTS OF NET POSITION

As of June 30, 2019 and 2018 (\$ in thousands)	2019	2018
Assets		
Current assets		
Cash and cash equivalents	\$ 84,986	\$ 88,463
Cash held by state treasurer	12,560	14,689
Accounts receivable, net	286,028	310,371
Short-term investments	489,907	470,139
Other current assets	48,101	35,023
Total current assets	921,582	918,685
Noncurrent assets		
Cash held by state treasurer	8,420	8,009
Deposits with bond trustees	211,926	319,228
Accounts receivable, net	55,123	64,251
Long-term investments	869,663	775,294
Other assets	136,530	124,527
Capital assets, net	5,164,200	5,075,476
Total noncurrent assets	6,445,862	6,366,785
Total assets	7,367,444	7,285,470
Deferred outflows of resources	356,683	341,335
Liabilities		
Current liabilities		
Accounts payable and accrued expenses	325,624	336,077
Unearned revenues and advances	61,340	59,323
Long-term debt, current portion	341,888	445,035
Other current liabilities	70,458	94,090
Total current liabilities	799,310	934,525
Noncurrent liabilities		
Unearned revenues and advances	61,658	120,990
Long-term debt	2,700,490	2,644,033
Derivative instruments, interest rate swaps	55,622	41,602
Net pension liability	409,319	420,234
Net other postemployment benefits liability	718,955	817,357
Other long-term liabilities	114,625	117,695
Total noncurrent liabilities	4,060,669	4,161,911
Total liabilities	4,859,979	5,096,436
Deferred inflows of resources	361,245	141,485
Net position		
Net investment in capital assets	2,343,872	2,288,599
Restricted:		
Nonexpendable	28,617	28,022
Expendable	206,023	222,343
Unrestricted	(75,609)	(150,080)
Total net position	\$ 2,502,903	\$ 2,388,884

See accompanying notes to the financial statements.

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

For The Years Ended June 30, 2019 and 2018 (\$ in thousands)	2019	2018
Revenues		
Operating revenues		
Tuition and fees (net of scholarship allowances of \$328,845 at June 30, 2019 and \$310,106 at June 30, 2018)	\$ 894,904	\$ 874,826
Grants and contracts	593,086	560,990
Sales and services, educational activities	34,984	30,591
Auxiliary enterprises	441,795	416,733
Other operating revenues:		
Sales and services, independent operations	59,893	68,497
Sales and services, public service activities	291,085	381,018
Other	137,607	136,159
Total operating revenues	2,453,354	2,468,814
Expenses		
Operating expenses		
Educational and general		
Instruction	901,235	876,235
Research	487,725	471,135
Public service	83,566	78,238
Academic support	184,462	187,495
Student services	158,991	156,934
Institutional support	269,126	271,535
Operation and maintenance of capital assets	246,725	255,825
Depreciation and amortization	276,638	261,417
Scholarships and fellowships	49,509	50,410
Auxiliary enterprises	338,207	313,741
Other expenditures		
Independent operations	47,785	52,211
Public service activities	226,821	325,216
Total operating expenses	3,270,790	3,300,392
Operating loss	(817,436)	(831,578)
Nonoperating revenues (expenses)		
Federal appropriations	7,004	6,688
State appropriations	780,221	751,894
Gifts	43,705	39,022
Investment income	48,943	37,622
Unrealized gain on investments	18,082	5,558
Endowment income distributed for operations	27,741	26,742
Interest on indebtedness	(116,217)	(115,851)
Nonoperating federal grants	84,454	81,590
Other nonoperating income	1,576	1,118
Net nonoperating revenues	895,509	834,383
Income before other revenues, expenses, gains, and losses	78,073	2,805
Other revenues, expenses, gains and losses		
Capital appropriations	25,500	67,437
Capital grants, contracts and gifts	13,165	8,732
Endowment return, net of amount used for operations	13,467	8,166
Other deductions	(16,186)	(9,554)
Total other revenues, expenses, gains, and losses	35,946	74,781
Total increase in net position	114,019	77,586
Net position		
Net position at beginning of year	2,388,884	3,054,280
Cumulative effect of adopting GASB 75	-	(742,982)
Net position at beginning of year, adjusted	2,388,884	2,311,298
Net position at end of year	\$ 2,502,903	\$ 2,388,884

See accompanying notes to the financial statements.

STATEMENTS OF CASH FLOWS

For The Years Ended June 30, 2019 and 2018 (\$ in thousands)

	2019	2018
Cash flows from operating activities		
Tuition and fees	\$ 985,247	\$ 974,631
Grants and contracts	587,539	569,408
Payments to suppliers	(950,398)	(848,595)
Payments to employees	(1,603,488)	(1,690,799)
Payments for benefits	(480,477)	(402,823)
Payments for scholarships and fellowships	(76,927)	(50,402)
Loans issued to students and employees	(8,882)	(8,068)
Collections of loans to students and employees	17,660	8,751
Auxiliary enterprises	441,563	416,628
Sales and services, educational	35,360	30,573
Sales and services, independent operations	59,893	68,497
Sales and services, public service activities	293,383	394,927
Other receipts, net	190,651	194,419
Net cash used for operating activities	(508,876)	(342,853)
Cash flows from noncapital financing activities		
State appropriations	780,221	751,894
Federal appropriations	7,004	6,688
Grants, contracts and gifts for other than capital purposes	52,308	38,809
Nonoperating federal grants	84,454	81,590
Student organization agency transactions	(1,297)	1,549
Net cash provided by noncapital financing activities	922,690	880,530
Cash flows from capital and other financing activities		
Proceeds from capital debt	278,041	105,380
Proceeds from premiums received	47,633	-
Capital lease payments received	4,252	-
Bond issuance costs paid	(1,430)	-
Capital appropriations	25,500	67,437
Capital grants, contracts and gifts	4,562	8,945
Purchases of capital assets and construction	(382,048)	(487,912)
Retirement of debt	(254,910)	-
Principal paid on capital debt and leases	(103,170)	(96,325)
Interest paid on capital debt and leases	(137,517)	(125,825)
Net cash used for capital financing activities	(519,087)	(528,300)
Cash flows from investing activities		
Proceeds from sales and maturities of investments	1,350,013	1,244,020
Interest on investments	47,623	19,774
Purchases of investments	(1,404,860)	(1,396,424)
Net cash used for investing activities	(7,224)	(132,630)
Net decrease in cash and cash equivalents	(112,497)	(123,253)
Cash and cash equivalents: beginning of the year	430,389	553,642
Cash and cash equivalents: end of the year	317,892	430,389

STATEMENTS OF CASH FLOWS

For The Years Ended June 30, 2019 and 2018 (\$ in thousands)

	2019	2018
Reconciliation of operating loss to net cash used by operating activities		
Operating loss	(817,436)	(831,578)
Adjustments to reconcile loss to net cash used by operating activities:		
Depreciation and amortization expense	276,638	261,417
Changes in assets and liabilities:		
Accounts receivable, net	29,219	3,574
Other assets	(23,761)	2,734
Accounts payable and accrued expenses	5,335	41,749
Unearned revenues and advances	(57,315)	67,108
Other liabilities	(26,702)	33,411
Pension liability	(10,915)	(9,637)
Other postemployment benefits liability	(98,402)	74,375
Changes in deferred outflows related to assets	(1,782)	-
Changes in deferred inflows related to future revenues	76,839	-
Changes in deferred outflows and inflows related to employee benefits	139,406	13,994
Net cash used for operating activities	(508,876)	(342,853)
Supplemental disclosure of noncash activities		
Assets acquired and included in accounts payable and other liabilities	36,558	49,110
Loss on disposals of capital assets	(14,331)	(6,695)
Donated assets	1,390	1,727

See accompanying notes to the financial statements.



STATEMENTS OF FINANCIAL POSITION

For The Years Ended June 30, 2019 and 2018 (\$ in thousands)	2019	2018
Assets		
Cash	\$ 925	\$ 1,153
Bequests receivable	2,311	399
Pledges receivable, net	20,417	25,180
Investments of the Foundations and held on behalf of the University	1,338,359	1,223,596
Prepaid expenses and other assets	2,917	2,592
Land, property, plant and equipment, net	16,481	16,906
Total assets	1,381,410	1,269,826
Liabilities and net assets		
Liabilities		
Accounts payable and accrued expenses	492	448
Deferred revenue	944	1,049
Obligations to beneficiaries of split-interest agreements	2,386	2,384
Assets held on behalf of others	762,232	678,890
Total liabilities	766,054	682,771
Net assets		
Without donor restrictions	37,404	34,342
With donor restrictions	577,952	552,713
Total net assets	615,356	587,055
Total liabilities and net assets	\$ 1,381,410	\$ 1,269,826

STATEMENTS OF ACTIVITIES

For The Years Ended June 30, 2019 (with summarized financial information for the year ended June 30, 2018) (\$ in thousands)	Without donor restriction	With donor restriction	Total 2019	Total 2018
Support and revenue				
Gifts, bequests and grants	\$ 891	\$ 20,173	\$ 21,064	\$ 31,603
Other contributions	60,237	636	60,873	1,970
Total investment income, including net gains (losses) - net of fees	46,124	29,199	75,323	64,715
Investment management fee	10,935	-	10,935	11,022
Other income	41	230	271	323
Net assets released from restrictions	25,803	(25,803)	-	-
Total support and revenue	144,031	24,435	168,466	109,633
Expenses				
Distributions to University	36,334	-	36,334	30,846
Program services	9,718	-	9,718	10,084
Fundraising support	7,999	-	7,999	6,210
Administrative and general	2,353	-	2,353	3,122
Total expenses	56,404	-	56,404	50,262
Excess of support and revenue over expenses	87,627	24,435	112,062	59,371
Less: Fiscal 2019 activity related to assets held on behalf of University	(87,384)	-	(87,384)	(18,697)
Less: Fiscal 2019 activity related to assets held on behalf of Edward M. Kennedy Institute	4,011	-	4,011	(1,683)
Transfers (from) to other funds	(804)	804	-	-
Change in value of split interest agreements	(388)	-	(388)	(387)
Change in net assets	3,062	25,239	28,301	38,604
Net assets, beginning of year	34,342	552,713	587,055	548,451
Net assets, end of year	\$ 37,404	\$ 577,952	\$ 615,356	\$ 587,055

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 consists of nineteen voting members and three non-voting members. The voting members consist of two full-time students, the Secretary of Education of the Commonwealth of Massachusetts (Commonwealth) and sixteen members appointed by the governor. The non-voting members consist of student representatives who may only participate in open meetings of the full Board.

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

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

The Building Authority is a public instrumentality of the Commonwealth created by Chapter 773 of the Acts of 1960 (referred to as the Enabling Act), whose purpose is to provide dormitories, dining commons, and other buildings and structures for use by the University. WCCC is a tax exempt organization founded to support research and real property activities for the University. The UMass Amherst Foundation was established in 2003 to support private fundraising on behalf of the faculty and students of the Amherst campus. These component units are blended in the financial statements of the University because of the significance and exclusivity of their financial relationships with the University. Refer to Note 17 for condensed financial information for these blended component units.

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

The Building Authority and the Foundations issue separate standalone financial statements which may be obtained by contacting the respective organizations or by contacting the University Controller, bcevallos@umassp.edu.

Basis of presentation

The accompanying financial statements have been prepared in accordance with U.S. generally accepted accounting principles (GAAP) as prescribed by the Governmental Accounting Standards Board (GASB) using the economic resources measurement focus and the accrual basis of accounting. The Foundations' financial statements are prepared in accordance with accounting and reporting requirements prescribed by the Financial Accounting Standards Board (FASB). As such, certain revenue recognition criteria and presentation features are different from GASB revenue recognition criteria and presentation features. No modifications have been made to the Foundations' financial information in the University's financial reporting entity for these differences. These financial statements are reported on a combined basis, and all intra-University transactions are eliminated.

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 by 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, 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 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.

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 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 are classified as unrestricted net position. The University's unrestricted net position may be designated for specific purposes by management or the Board of Trustees. Substantially all of the University's unrestricted net position is designated to support academic and research initiatives or programs, auxiliary enterprises, quasi-endowments, or commitments to capital construction projects. Note 15 describes these designations in more detail.

Cash and cash equivalents

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

In addition, the Building Authority is authorized to invest in the Massachusetts Municipal Depository Trust ("MMDT"), a pooled money market-like fund, established under 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 Building Authority 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 receivables 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 a gift 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 Intermediate Term Investment Fund (ITIF). 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 actual spending rate approved for the years ended June 30, 2019 and 2018 was 4%.

Inventories

The University inventories consist of books, general merchandise, and vaccines which are carried at the lower of cost (first-in, first-out and average cost methods) or market value. Inventory balances are included within other current assets on the Statements of Net Position.

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 of 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, 2019 and 2018 included the following (\$ in thousands):

For the years ended June 30, 2019 and 2018 (\$ in thousands)	2019	2018
Deferred outflows of resources		
Fair value of interest rate swaps	\$ 34,262	\$ 18,887
Loss on debt refundings	69,119	74,443
Certain asset retirement obligations	1,782	-
Impact of assumption changes and investment losses to:		
Pension liability	113,654	126,244
Other postemployment benefits liability	137,866	121,761
	\$ 356,683	\$ 341,335
Deferred inflows of resources		
Sale of future revenues	76,839	-
Experience gains for:		
Pension liability	60,182	45,540
Other postemployment benefits liability	224,224	95,945
	\$ 361,245	\$ 141,485

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.

In addition, unearned revenues and 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 schools to make new loans under the Program ended on September 30, 2017, and final distributions were permitted through June 30, 2018. The University's Statements of Net Position include both the notes receivable and the related federal refundable loan liability.

Bond issuance costs

The University incurs certain costs associated with bond issuances. For the years ended June 30, 2019 and 2018, bond issuance costs amounted to \$1.4 million and \$0.2 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 expenses.

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 and a corresponding receivable 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, 2019 and 2018 was \$136.8 million and \$131.4 million, respectively, and is a component of grants and contracts revenue on the Statements of Revenues, Expenses, and Changes in Net Position.

Auxiliary enterprises

An auxiliary enterprise is an activity that exists to furnish a service to students, faculty or staff acting in a personal capacity, and that charges a fee for the use of goods and services.

Fringe benefits for current employees and postemployment obligations: pension and non-pension

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 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 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, 2019 and 2018, respectively.

Newly implemented accounting standards

Effective for fiscal year 2019, the University implemented GASB Statement No. 83, *Certain Asset Retirement Obligations*, which addresses the accounting and financial reporting for legally enforceable liabilities associated with the retirement of certain tangible capital assets. The adoption of this standard required the University to record a deferred outflow and a related liability of \$1.8 million.

Effective for fiscal year 2019, the University implemented GASB Statement No. 88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements*, which is intended to improve the information that is disclosed in the notes to government financial statements related to these types of debt instruments. The adoption of this standard required the University to disclose certain direct borrowings in the notes of the financial statements.

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 \$21.0 and \$22.7 million at June 30, 2019 and June 30, 2018. 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 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, 2019 and 2018, deposits with bond trustees consisted of the following (\$ in thousands):

	2019	2018
Cash	\$ 10,253	\$ 10,480
MMDT	191,988	299,292
Permitted money market accounts	4,367	4,138
Repurchase agreements and other investments	5,318	5,318
Total cash and cash equivalents	\$ 211,926	\$ 319,228

At June 30, 2019, amounts restricted by bond trust agreements for capital projects, debt service and other purposes were \$182.4 million, \$18.9 million, and \$10.6 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, 2019 and 2018, the bank balances of uninsured deposits totaled \$3.6 million and \$4.4 million, respectively.

Interest Rate Risk – MMDT and permitted money market accounts have effective maturities of less than one year.

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 year ended June 30, 2019 and 2018, respectively, includes the following:

	2019	2018
Short-term investments	\$ 489,907	\$ 470,139
Long-term investments	869,663	775,294
Total	\$ 1,359,570	\$ 1,245,433

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 below, these investments are identified as Foundation Agency Funds.

The endowment and similar investment holdings of the University, Foundation Agency Funds, and the Foundations, as of June 30, 2019 and 2018, respectively are summarized below (\$ in thousands):

	University		Foundations	
	2019	2018	2019	2018
Cash and cash equivalents	\$ 111,408	\$ 118,491	\$ 31,914	\$ 30,545
Money market and other investments	260,000	226,900	4,411	4,430
MMDT	95,000	95,000	-	-
Fixed income investments	139,398	135,852	3,784	4,662
Pooled investments - Fund I	-	-	556,031	528,921
Commercial ventures and intellectual property	1,857	1,994	-	-
Annuity life income funds	13,160	15,833	3,472	3,675
	\$ 620,823	\$ 594,070	\$ 599,612	\$ 572,233
Foundation agency funds:				
Pooled investments - Fund I	415,445	341,464	415,445	341,464
Pooled investments - Fund II	323,302	309,899	323,302	309,899
Total	\$ 1,359,570	\$ 1,245,433	\$ 1,338,359	\$ 1,223,596

Investments held at UMF within Fund I represent the University's endowment funds. These funds include both donor-restricted endowments and quasi-endowments. Investments held at UMF within Fund II represent the operating cash of the University that has been transferred to UMF for investment purposes.

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 \$107.1 million and \$132.1 million, at June 30, 2019 and 2018, respectively.

The University held non-money market investments with a carrying and fair market value of \$871.4 million and \$743.6 million at June 30, 2019 and 2018, 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, 2019 and 2018, 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 – 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, 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 fund, 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

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, 2018 (\$ in thousands):

	S&P quality ratings								Total
	AAA	AA	A	BBB	BB	B	<B	Unrated	
Debt securities									
Government agency bonds	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 351	\$ 351
Asset backed securities	11,763	-	167	389	-	-	-	5,333	17,652
Commercial mortgage-backed securities	298	-	-	-	-	-	-	6,966	7,264
Government issued commercial mortgage-backed securities	-	-	-	-	-	-	-	122	122
Government mortgage-backed securities	-	-	-	-	-	-	-	3,772	3,772
Non-government backed CMOs	640	-	-	-	-	-	-	799	1,439
Corporate bonds	561	4,119	28,168	29,328	314	-	-	763	63,253
Municipal and provincial bonds	412	731	405	647	-	-	-	-	2,195
Bond fund, including exchange traded funds	35,074	18,373	16,452	22,319	7,658	2,451	276	8,049	110,652
Total debt securities	\$48,748	\$23,223	\$45,192	\$52,683	\$7,972	\$2,451	\$276	\$ 26,155	\$ 206,700

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, 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 fund, 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

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, 2018 (\$ 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	\$ -	\$ 69,819	\$ 8,917	\$ -	\$ 78,736
Government agency bonds	-	351	-	-	351
Asset backed securities	4,960	12,525	167	-	17,652
Commercial mortgage-backed securities	529	5,797	938	-	7,264
Government issued commercial mortgage-backed securities	122	-	-	-	122
Government mortgage-backed securities	446	3,326	-	-	3,772
Non-government backed CMOs	640	799	-	-	1,439
Corporate bonds	15,131	45,172	2,527	423	63,253
Municipal and provincial bonds	2,051	144	-	-	2,195
Bond fund, including exchange traded funds	27,843	59,569	16,009	7,231	110,652
Total debt securities	\$ 51,722	\$ 197,502	\$ 28,558	\$ 7,654	\$ 285,436

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, 2019 and 2018, 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, 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	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
Investments at fair value	362,125	689,898	99,512	1,627	1,153,162
Cash and cash equivalents	-	-	-	-	63,408
Certificate of deposit	-	-	-	-	48,000
MMDT	-	-	-	-	95,000
Total investments at costs	-	-	-	-	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 to annual	30-90 days	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	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, private debt and private real estate partnerships. The University expects these funds to be called over the next 1-5 years. Liquidity is expected to be received in the next 1-9 years.



The following table summarizes the fair value of the University's investments by type as of June 30, 2018 (\$ in thousands):

	Investments measured at NAV	Investments classified in the fair value hierarchy			
		Level 1	Level 2	Level 3	Total
Money market funds	\$ -	\$ 376,422	\$ -	\$ -	\$ 376,422
Debt securities					
U.S. Treasury securities	-	78,736	-	-	78,736
Government agency bonds	-	-	351	-	351
Asset backed securities	-	-	17,652	-	17,652
Commercial mortgage-backed securities	-	-	7,264	-	7,264
Government issued commercial mortgage-backed securities	-	-	122	-	122
Government mortgage-backed securities	-	-	3,772	-	3,772
Non-government backed CMOs	-	-	1,439	-	1,439
Corporate bonds	-	-	63,209	44	63,253
Municipal and provincial bonds	-	-	2,195	-	2,195
Bond Funds, including exchange traded funds	-	110,652	-	-	110,652
Total debt securities	-	189,388	96,004	44	285,436
Equity securities					
Domestic equities	-	120,875	-	1,384	122,259
International equities	-	106,955	-	-	106,955
Total equity securities	-	227,830	-	1,384	229,214
Alternative investments					
Multi-strategy hedge funds					
Equity	69,885	-	-	-	69,885
Long/short	19,971	-	-	-	19,971
Fixed income	34,798	-	-	-	34,798
Absolute return	40,213	-	-	-	40,213
Real assets	11,689	-	-	-	11,689
Private equity	8,652	-	-	-	8,652
Private debt	19,462	-	-	-	19,462
Private real estate	4,762	-	-	-	4,762
Total alternative investments	209,432	-	-	-	209,432
Other securities	-	18,015	-	-	18,015
Total investments at fair value	209,432	811,655	96,004	1,428	1,118,519
Cash and cash equivalents	-	-	-	-	31,866
Certificates of deposit	-	-	-	-	48
MMDT	-	-	-	-	95,000
Total investments at costs	-	-	-	-	126,914
Total investments	\$ 209,432	\$ 811,655	\$ 96,004	\$ 1,428	\$ 1,245,433

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, 2018 (\$ in thousands):

	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Alternative investments					
Multi-strategy hedge funds					
Equity	\$ 69,885	\$ -	Daily to quarterly	01-60 days	No lock-up restrictions
Long/short	19,971	-	Quarterly to annual	30-90 days	No lock-up restrictions
Fixed income	34,798	-	Quarterly to annual	60 days	No lock-up restrictions
Absolute return	40,213	-	Daily to annual	01-65 days	No lock-up restrictions
Real assets	11,689	-	Annual	90 days	No lock-up restrictions
Private equity	8,652	18,574	Closed end funds	(1)	Not redeemable
Private debt	19,462	12,408	Closed end funds	(1)	Not redeemable
Private real estate	4,762	4,170	Closed end funds	(1)	Not redeemable
Total	\$ 209,432	\$ 35,152			

(1) The University has made commitments to various private equity, private debt and private real estate partnerships. The University expects these funds to be called over the next 1-5 years. Liquidity is expected to be received in the next 1-9 years.

5. Accounts Receivable, Net

Accounts receivable as of June 30, 2019 and 2018 are as follows (\$ in thousands):

	2019	2018
Student tuition and fees	\$ 56,676	\$ 60,454
Student loans	54,403	62,462
Pledges receivable	24,655	25,199
Grants and contracts	102,761	94,235
CWM program receivable	60,322	64,690
UMass Memorial	22,131	42,157
Other receivables	44,457	55,983
	365,405	405,180
Less: allowance for doubtful accounts and discount to present value for pledges	(24,254)	(30,558)
Accounts receivable, net	\$ 341,151	\$ 374,622

The receivable from UMass Memorial, which is uncollateralized, represents a potential concentration of credit risk for the University. This receivable represents 6.5% and 11.3% of total accounts receivable for the University at June 30, 2019 and 2018, 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, 2019 and 2018, the reimbursements received for services provided to UMass Memorial were \$168.4 million and \$140.5 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 \$109.3 million and \$85.5 million for the years ended June 30, 2019 and 2018, respectively. As of June 30, 2019 and 2018, the University has recorded a receivable in the amount of \$22.1 million and \$42.2 million, respectively from UMass Memorial which includes \$11.7 million and \$29.6 million, respectively, in payroll and related fringe charges. The University has recorded a payable of \$9.5 million and \$4.5 million at June 30, 2019 and 2018, 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, 2019 and 2018 (\$ in thousands):

	2017	Additions	Retirements/ adjustments	2018	Additions	Retirements/ adjustments	2019
Land	\$ 97,660	\$ 68,771	\$ (1,063)	\$ 165,368	\$ 1,336	\$ (680)	\$ 166,024
Buildings and improvements	6,055,606	444,250	(991)	6,498,865	642,801	(35,340)	7,106,326
Software	111,038	10,224	(8,078)	113,184	6,747	(5,639)	114,292
Equipment and furniture	685,066	52,453	(37,626)	699,893	41,929	(24,779)	717,043
Library books	60,144	-	(6,570)	53,574	-	(6,609)	46,965
	7,009,514	575,698	(54,328)	7,530,884	692,813	(73,047)	8,150,650
Accumulated depreciation	(2,852,988)	(261,417)	37,509	(3,076,896)	(276,495)	48,654	(3,304,737)
	4,156,526	314,281	(16,819)	4,453,988	416,318	(24,393)	4,845,913
Construction in progress	697,584	407,191	(483,287)	621,488	328,232	(631,433)	318,287
Total capital assets, net	\$4,854,110	\$ 721,472	\$ (500,106)	\$5,075,476	\$ 744,550	\$ (655,826)	\$5,164,200

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, 2019 and 2018, the University capitalized net interest costs of \$8.7 million and \$11.6 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 will be \$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 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 has 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.

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.

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, nine 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 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,

ninety-nine 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, 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 renewal 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 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, 2019 (\$ 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		
2020	\$ 5,355	\$ 1,025	\$ 12,376	\$ 18,756	\$ 26,606
2021	5,368	1,338	12,348	19,054	25,117
2022	5,374	1,650	11,628	18,652	19,449
2023	5,375	1,650	9,758	16,783	18,362
2024	3,478	1,650	9,009	14,137	16,970
2025-2029	25,858	8,316	34,428	68,602	87,708
2030-2034	25,686	8,411	27,970	62,067	50,537
2035-2039	26,145	8,510	5,870	40,525	850
2040-2044	11,997	8,611	-	20,608	-
2045-2049	-	8,716	-	8,716	-
2050-2054	-	8,824	-	8,824	-
2055-2059	-	6,202	-	6,202	-
2060-2064	-	3,396	-	3,396	-
Total payments	\$ 114,636	\$ 68,299	\$ 123,387	\$ 306,322	\$ 245,599
Less amounts representing interest:	(36,014)				
Net investment in direct financing lease	\$ 78,622				

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 \$34.6 million and \$27.1 million for the years ended June 30, 2019 and 2018, respectively. The leases primarily relate to telecommunications, software, and co-generation systems. The University also leases space to third party tenants. During the years ended June 30, 2019 and 2018, the amount reported as rental income was \$25.2 million and \$24.5 million, respectively.

9. Long-Term Debt

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	0.4-2.7%	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	2036	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	3.3-3.8%	165,130	-	-	165,130
Series 2017-2	19,510	2027	1.6-3.4%	19,510	-	(1,445)	18,065
Series 2017-3	35,945	2038	3.0-5.0%	184,760	-	(5,815)	178,945
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
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

The following table represents the outstanding long-term debt as of June 30, 2018, and the related activity during the fiscal year (\$ in thousands):

	As of June 30, 2017	Additions	Reductions	As of June 30, 2018
Building authority				
Series 2008-A	\$ 19,145	\$ -	\$ (995)	\$ 18,150
Series 2008-1	171,430	-	(8,315)	163,115
Series 2008-2	3,065	-	(3,065)	-
Series 2009-1	28,400	-	(13,115)	15,285
Series 2009-2	271,855	-	-	271,855
Series 2009-3	25,685	-	(585)	25,100
Series 2010-1	59,230	-	(13,745)	45,485
Series 2010-2	430,320	-	-	430,320
Series 2010-3	2,730	-	(55)	2,675
Series 2011-1	126,540	-	(1,550)	124,990
Series 2011-2	96,115	-	(1,060)	95,055
Series 2013-1	198,655	-	(4,910)	193,745
Series 2013-2	65,090	-	(2,265)	62,825
Series 2013-3	24,640	-	-	24,640
Series 2014-1	293,015	-	(525)	292,490
Series 2014-2	8,555	-	(2,805)	5,750
Series 2014-3	61,640	-	(3,480)	58,160
Series 2014-4	122,125	-	(30,030)	92,095
Series 2015-1	298,795	-	-	298,795
Series 2015-2	191,825	-	(2,825)	189,000
Series 2017-1	165,130	-	-	165,130
Series 2017-2	19,510	-	-	19,510
Series 2017-3	187,680	-	(2,920)	184,760
Series 2018-1	-	37,650	-	37,650
Unamortized bond premium	164,887	-	(14,188)	150,699
	3,036,062	37,650	(106,433)	2,967,279
MHEFA/MDFA				
2000 Series A	20,000	-	-	20,000
Series 2011	25,925	-	(1,045)	24,880
Unamortized bond premium	870	-	(53)	817
	46,795	-	(1,098)	45,697
WCCC MHEFA/MDFA				
Series 2005-D	715	-	(100)	615
Series 2011	6,690	-	(830)	5,860
Unamortized bond premium	624	-	(98)	526
	8,029	-	(1,028)	7,001
MDFA				
Clean renewable energy bonds	956	-	(96)	860
Total bonds payable	3,091,842	37,650	(108,655)	3,020,837
Notes and commercial paper	1,917	64,535	(483)	65,969
Capital lease obligations	592	3,195	(1,525)	2,262
Total long-term debt	\$ 3,094,351	\$ 105,380	\$ (110,663)	\$ 3,089,068

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 the 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, 2019, 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	
2020	\$ 103,931	\$ 121,167	\$ (7,555)	\$ -	\$ 766	\$ 218,309
2021	107,865	117,154	(7,567)	-	763	218,215
2022	100,356	113,035	(7,463)	-	763	206,691
2023	104,641	108,913	(7,247)	-	763	207,070
2024	107,506	104,769	(7,015)	1,655	754	207,669
2025–2029	502,766	459,783	(30,829)	8,565	3,493	943,778
2030–2034	452,745	346,676	(22,396)	8,530	3,500	789,055
2035–2039	558,820	229,429	(11,373)	9,880	2,142	788,898
2040–2044	494,805	90,149	(1,029)	9,020	592	593,537
2045–2049	151,255	10,623	-	-	-	161,878
Total	\$ 2,684,690	\$ 1,701,698	\$ (102,474)	\$ 37,650	\$ 13,536	\$ 4,335,100

* These interest rate subsidies are provided by the United States Government related to the Authority's issuance of bonds under the Build America Bond ("BAB") program. Under the BAB program, the Government provides a direct subsidy of the interest rate paid to bondholders up to 35%. The Authority's November 1, 2018, and May 1, 2019 subsidy payments related to the Senior Series 2009-2 Project Revenue Build America Bonds and the Senior Series 2010-2 Project Revenue Build America Bonds were 32.7% and 32.8%, respectively. For Fiscal Year 2020 through Fiscal Year 2041, the estimated subsidy reflected in the table above is 32.9%.

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 \$583.0 thousand and \$657.6 thousand for the years ended June 30, 2019 and 2018, 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 6, 2022. Fees incurred under the agreements related to the bonds totaled \$425.7 thousand and \$434.4 thousand for the years ended June 30, 2019 and 2018, respectively.

On June 27, 2018, the Authority issued \$37.7 million of direct placement bonds. The annual principal and interest payments of this outstanding debt is disclosed above.

Bond Premium – During the year ended June 30, 2019, premiums received totaled \$47.6 million. The University amortizes premiums received as a reduction of interest expense over the life of the respective bond issue. There were no new premiums received during the year ended June 30, 2018.

Commercial Paper – The maximum aggregate principal amount of commercial paper the Building Authority may have outstanding at one time is \$200.0 million. The Building Authority currently has standby liquidity facility agreements with State Street Bank and Trust Company for \$125.0 million and with U.S. Bank National Association for \$75.0 million. Each agreement expires on August 12, 2022.

During the fiscal year 2019 and 2018, the Building Authority issued \$69.1 million and \$64.5 million of commercial paper, respectively. As of June 30, 2019 and 2018, the Building Authority had an outstanding balance commercial paper of \$131.9 million and \$64.5 million, respectively. The Building Authority incurred total fees of \$0.7 million and \$0.7 million for the years ending

June 30, 2019 and 2018, respectively, associated with the use of commercial paper.

Bond Refundings – There was no refunding of bonds in the year ended June 30, 2018. During the year ended June 30, 2019, the Building Authority issued \$208.7 million of Refunding Revenue Senior Series 2019-1 Bonds which partially refunded the 2009-2 Senior Series Building America Bonds. There was no loss or gain on the refunding.

For the years ended June 30, 2019 and 2018, the amortization of the loss on debt refundings totaled \$5.3 million, which increases interest expense.

Interest Rate Swaps – The Building Authority 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 Building Authority's interest rate swap liabilities at June 30, 2019 and 2018 are as follows (\$ in thousands):



	Notional value	As of June 30, 2018	Net change	As of June 30, 2019	Effective date	Term date	Authority pays	Authority receives
Series 2008-1	\$ 154,480	\$ 16,577	\$ 6,732	\$ 23,309	05/01/08	05/01/38	3.39%	70% of 1-Month LIBOR
Series 2008-A	17,120	1,931	789	2,720	11/13/08	05/01/38	3.38%	70% of 1-Month LIBOR
Series 2011	217,495	23,094	6,499	29,593	04/20/06	11/01/34	3.48%	60% of 3-Month LIBOR + .18%
Total		\$ 41,602	\$ 14,020	\$ 55,622				

Swap Payments and Associated Debt – Using rates as of June 30, 2019, 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
2020	\$ 12,720	\$ 7,388	\$ 7,060	\$ 27,168
2021	28,390	7,000	6,692	42,082
2022	29,545	6,453	6,163	42,161
2023	33,915	5,855	5,583	45,353
2024	35,200	5,204	4,950	45,354
2025–2029	149,550	17,326	16,392	183,268
2030–2034	90,205	4,974	4,660	99,839
2035–2039	9,570	215	198	9,983
Total	\$ 389,095	\$ 54,415	\$ 51,698	\$ 495,208

10. Other Liabilities

During the year ended June 30, 2019, the following changes occurred in other liabilities as recorded in the Statements of Net Position (\$ in thousands):

	As of June 30, 2018	Additions	Reductions	As of June 30, 2019	Due in one year
Compensated absences	\$ 108,305	\$ 6,212	\$ (7,119)	\$ 107,398	\$ 81,155
Workers' compensation	14,769	80	(999)	13,850	2,882
Unearned revenues	146,024	69,875	(127,036)	88,863	54,946
Advances and deposits	34,289	7,056	(7,210)	34,135	6,394
Other liabilities	168,672	75,228	(96,028)	147,872	70,458
Total	\$ 472,059	\$ 158,451	\$ (238,392)	\$ 392,118	\$ 215,835

	As of June 30, 2017	Additions	Reductions	As of June 30, 2018	Due in one year
Compensated absences	\$ 111,752	\$ 4,192	\$ (7,639)	\$ 108,305	\$ 76,749
Workers' compensation	14,586	841	(658)	14,769	3,225
Unearned revenues	76,725	126,581	(57,282)	146,024	52,884
Advances and deposits	36,480	6,929	(9,120)	34,289	6,439
Other liabilities	136,374	94,077	(61,779)	168,672	94,077
Total	\$ 375,917	\$ 232,620	\$ (136,478)	\$ 472,059	\$ 233,374

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



11. Fringe Benefits

During the years ended June 30, 2019 and 2018, the Commonwealth paid \$383.6 million and \$358.1 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 \$149.1 million and \$134.1 million during the years ended June 30, 2019 and 2018, 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% of regular compensation
1984 – 6/30/1996	8% of regular compensation
7/1/1996 – present	9% of regular compensation except for State Police which is 12% of regular compensation
1979 – present	An additional 2% of regular compensation in excess of \$30,000

In addition, members within this group who join the system on or after April 2, 2012 will have their withholding rate reduced to 6% after achieving 30 years of creditable service.

The University makes contributions on behalf of the employees through a fringe benefit charge assessed by the Commonwealth. The fringe benefit charge amounted to \$125.5 million and \$107.4 million for the years ended June 30, 2019 and 2018, respectively. Annual covered payroll was 77.4% and 75.9% of annual total payroll for the University for the years ended June 30, 2019 and 2018, 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, 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. The net pension liability measured as of June 30, 2018 was determined based on a measurement date of June 30, 2017 from an actuarial valuation as of January 1, 2017 rolled forward to June 30, 2017. 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, 2019 and 2018, the University reported a liability of \$409.3 million and \$420.2 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, 2018 and 2017 was 3.09% and 3.28%, respectively.

For the fiscal years ended June 30, 2019 and 2018, the University recognized pension expense of \$52.2 million and \$58.5 million, respectively.

The University reported its proportionate share of MSERS deferred outflows of resources and deferred inflows of resources related to pensions from the following sources as of June 30, 2019 and 2018 (\$ in thousands):

	2019		2018	
	Deferred outflows of resources	Deferred inflows of resources	Deferred outflows of resources	Deferred inflows of resources
Changes of assumptions	\$ 41,482	\$ -	\$ 43,732	\$ -
Changes in proportion due to internal allocation	22,245	37,534	36,532	28,949
Employer contributions after measurement date	35,843	-	28,292	-
Differences between expected and actual experience	12,980	8,342	16,248	11,434
Net difference between projected and actual investment earnings on pension plan investments	-	14,228	-	5,007
Changes in proportion from Commonwealth	1,104	78	1,440	150
Total	\$ 113,654	\$ 60,182	\$ 126,244	\$ 45,540

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 2020. Other amounts are reported as follows:

Year ended June 30	
2020	\$ 22,405
2021	8,482
2022	(9,190)
2023	(2,483)
2024	(1,585)
Total	\$ 17,629

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

	June 30, 2018	June 30, 2017
Investment rate of return	7.35%	7.50%
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-2000 Healthy Annuitant Scale BB base year 2015	RP-2000 Healthy Annuitant Scale BB base year 2015

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

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, 2018 and 2017 are summarized in the following table:

Asset class	June 30, 2018		June 30, 2017	
	Target allocation	Long-term expected real rate of return	Target allocation	Long-term expected real rate of return
Global equity	39.00%	5.00%	40.00%	5.00%
Portfolio completion strategies	13.00%	3.70%	13.00%	3.60%
Core fixed income	12.00%	0.90%	12.00%	1.10%
Private equity	12.00%	6.60%	11.00%	6.60%
Real estate	10.00%	3.80%	10.00%	3.60%
Value added fixed income	10.00%	3.80%	10.00%	3.80%
Timber / natural resources	4.00%	3.40%	4.00%	3.20%
Total	100.00%		100.00%	

Discount Rate – The discount rate used to measure the total pension liability was 7.35% and 7.50% at June 30, 2018 and 2017, 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, 2019 (\$ in thousands):

Fiscal year ended	1% Decrease	Discount rate	1% Increase
June 30, 2019	\$ 551,694	\$ 409,319	\$ 287,666
June 30, 2018	\$ 572,341	\$ 420,234	\$ 297,708

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, 2019 and 2018, there were 2,011 and 1,916 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 \$7.8 million and \$7.2 million in 2019 and 2018, respectively. University employees contributed \$18.8 million and \$17.4 million in 2019 and 2018, respectively.

The MSERS and ORP retirement contributions of employees who become members of MSERS or ORP after January 1, 2011 are subject to a state compensation limit. Effective January 1, 2011, the University established a defined contribution plan, the University of Massachusetts 401(a) Retirement Gap Plan (Gap Plan). Employees with MSERS or ORP membership dates after January 1, 2011 are eligible to participate in the Gap Plan. Eligible employees begin participation in the Gap Plan when their regular compensation exceeds the state compensation limit in effect for the plan year, at which point their contributions to MSERS or ORP are required to stop for the remainder of the plan year. Employee contributions to the Gap Plan are mandatory and at the same rate as MSERS and ORP; the University contributes 4.3%. As of June 30, 2019 and 2018, the plan assets of the Gap Plan were \$4.7 million and \$3.4 million, respectively.

13. Other Postemployment Benefits

The Commonwealth administers the State Retirees' Benefit Trust, a single employer defined Postemployment Benefits Other Than Pensions (OPEB) Plan (the Plan). Benefits are managed by the Group Insurance Commission (GIC) and investments are managed by the Pension Reserves Investment Management Board (PRIM).

Benefits Provided – Under Chapter 32A of the MGL the Commonwealth is required to provide certain health care and life insurance benefits for retired employees of the Commonwealth. Substantially all of the Commonwealth's employees may become eligible for these benefits if they reach retirement age while working for the Commonwealth. Eligible retirees are required to contribute a specified percentage of the health care/benefit costs, which are comparable to contributions required from employees.

Employer and employee contribution rates are set in MGL. The Commonwealth recognizes its share of the costs on an actuarial basis. As of June 30, 2019 and 2018, the retirees' share of premium costs is between 0% – 20%, depending on the date of hire.

OPEB Liabilities, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB – The total OPEB liability as of June 30, 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. The total OPEB liability as of June 30, 2018 was determined based on a measurement date of June 30, 2017 from an actuarial valuation as of January 1, 2017 rolled forward to June 30, 2017. 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, 2019 and 2018, the University reported a liability of \$719.0 million and \$817.4 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. The University's proportion of the OPEB plan at the measurement dates of June 30, 2018 and 2017 was 4.82% and 4.67%, respectively.

For the fiscal years ended June 30, 2019 and 2018, the University recognized OPEB expense of \$44.6 million and \$70.0 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, 2019 (\$ in thousands):

	2019		2018	
	Deferred outflows of resources	Deferred inflows of resources	Deferred outflows of resources	Deferred inflows of resources
Changes of assumptions	\$ -	\$ 220,894	\$ -	\$ 92,574
Changes in proportion due to internal allocation	100,687	-	98,629	-
Employer contributions after measurement date	26,137	-	21,421	-
Differences between expected and actual experience	8,732	1,535	-	1,880
Net difference between projected and actual investment earnings on OPEB plan investments	-	1,795	-	1,491
Changes in proportion from Commonwealth	2,310	-	1,711	-
Total	\$ 137,866	\$ 224,224	\$ 121,761	\$ 95,945

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 2020. Other amounts are reported as follows:

Year ended June 30	
2020	\$ (28,805)
2021	(28,805)
2022	(28,805)
2023	(24,148)
2024	(1,932)
	\$ (112,495)

Actuarial Assumptions – 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%	
Mortality rates	RP-2014 Blue Collar Employees projected with Scale MP-2016	
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 80% 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:	
	Retirement age under 65	Retirement age over 65
Indemnity	40.0%	85.0%
POS/PPO	50.0%	0.0%
HMO	10.0%	15.0%

Significant actuarial assumptions used at the 2017 measurement date are as follows:

Long-term rate of return on investment	7.50%	
Annual healthcare cost trend rates		
Medical	8.5% decreasing by 0.5% each year to an ultimate rate of 5.0% in 2024	
Employer group waiver program	5.0%	
Administrative costs	5.0%	
Mortality rates	RP-2014 Blue Collar Employees projected with Scale MP-2016	
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 80% of current and future contingent eligible participants will elect health care benefits at 65 or later Actives, upon retirement, take coverage, and are assumed to have the following coverage:	
	Retirement age under 65	Retirement age over 65
Indemnity	40.0%	85.0%
POS/PPO	50.0%	0.0%
HMO	10.0%	15.0%

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

Best estimates of geometric rates of return for each major asset class included in the PRIT Fund's target asset allocation as of June 30, 2018 and 2017 are summarized in the following table:

Asset class	June 30, 2018		June 30, 2017	
	Target allocation	Long-term expected real rate of return	Target allocation	Long-term expected real rate of return
Global equity	39.00%	5.00%	40.00%	5.00%
Portfolio completion strategies	13.00%	3.70%	13.00%	3.60%
Core fixed income	12.00%	0.90%	12.00%	1.10%
Private equity	12.00%	6.60%	11.00%	6.60%
Real estate	10.00%	3.80%	10.00%	3.60%
Value added fixed income	10.00%	3.80%	10.00%	3.80%
Timber / natural resources	4.00%	3.40%	4.00%	3.20%
Total	100.00%		100.00%	

Discount Rate – The discount rates used to measure the total OPEB liability as of June 30, 2018 and 2017 were 3.95% and 3.63%, respectively. These rates were based on a blend of the Bond Buyer Index rates of 3.87% and 3.58%, respectively, as of the measurement dates June 30, 2018 and 2017 and the long term rate of return on Plan investments of 7.35% and 7.50%, 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, 2018 and 2017.

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, 2018	\$ 848,963	\$ 718,955	\$ 615,016
June 30, 2017	\$ 970,268	\$ 817,357	\$ 695,781

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, 2018	\$ 597,328	\$ 718,955	\$ 877,734
June 30, 2017	\$ 676,259	\$ 817,357	\$ 1,003,033

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, 2019 (\$ in thousands):

	Compensation and benefits	Supplies and services	Scholarships and fellowships	Depreciation and amortization	Interest	Total
Educational and general						
Instruction	\$ 775,540	\$ 125,695	\$ -	\$ -	\$ -	\$ 901,235
Research	282,040	205,685	-	-	-	487,725
Public service	67,908	15,658	-	-	-	83,566
Academic support	134,698	49,764	-	-	-	184,462
Student services	119,166	39,825	-	-	-	158,991
Institutional support	182,074	87,052	-	-	-	269,126
Operation and maintenance of plant	119,969	126,756	-	-	-	246,725
Depreciation and amortization	-	-	-	276,638	-	276,638
Scholarships and fellowships	-	-	49,509	-	-	49,509
Auxiliary enterprises	154,468	183,739	-	-	-	338,207
Other expenditures						
Independent operations	24,407	23,378	-	-	-	47,785
Public service activities	84,774	142,047	-	-	-	226,821
Total operating expenses	1,945,044	999,599	49,509	276,638	-	3,270,790
Interest on indebtedness	-	-	-	-	116,217	116,217
Total operating expenses and interest	\$ 1,945,044	\$ 999,599	\$ 49,509	\$ 276,638	\$ 116,217	\$ 3,387,007

The following table summarizes the University's operating expenses and interest by natural and functional classification for the year ended June 30, 2018 (\$ in thousands):

	Compensation and benefits	Supplies and services	Scholarships and fellowships	Depreciation and amortization	Interest	Total
Educational and general						
Instruction	\$ 758,474	\$ 117,761	\$ -	\$ -	\$ -	\$ 876,235
Research	281,811	189,324	-	-	-	471,135
Public service	64,329	13,909	-	-	-	78,238
Academic support	134,392	53,103	-	-	-	187,495
Student services	119,603	37,331	-	-	-	156,934
Institutional support	185,471	86,064	-	-	-	271,535
Operation and maintenance of plant	124,842	130,983	-	-	-	255,825
Depreciation and amortization	-	-	-	261,417	-	261,417
Scholarships and fellowships	-	-	50,410	-	-	50,410
Auxiliary enterprises	146,623	167,118	-	-	-	313,741
Other expenditures						
Independent operations	24,854	27,357	-	-	-	52,211
Public service activities	82,927	242,289	-	-	-	325,216
Total operating expenses	1,923,326	1,065,239	50,410	261,417	-	3,300,392
Interest on indebtedness	-	-	-	-	115,851	115,851
Total operating expenses and interest	\$ 1,923,326	\$ 1,065,239	\$ 50,410	\$ 261,417	\$ 115,851	\$ 3,416,243

15. Unrestricted Net Position

The University adopted a reserve policy and standards in fiscal year 2018. According to the 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 or a designated authority.
- **Stabilization** – funds designated to provide budgetary stabilization for operations due to unforeseen and/or uncontrollable circumstances to ensure responsible long-term financial stability.
- **Other unrestricted** – funds undesignated for a specific use or purpose.

The following table summarizes the University's unrestricted net position as of June 30, 2019 and 2018 (\$ in thousands):

	2019	2018
Unrestricted resources		
Unexpended plant and facilities	\$ 255,308	\$ 267,319
Auxiliary enterprises	100,154	91,539
Education and general	309,452	244,472
Quasi-endowment	352,743	280,517
Stabilization	114,594	109,168
Other unrestricted	(46,700)	(12,024)
Subtotal	1,085,551	980,991
Unfunded portion of pension liabilities	(355,847)	(339,530)
Unfunded portion of postretirement benefits other than pension liabilities	(805,313)	(791,541)
Total unrestricted net position	\$ (75,609)	\$ (150,080)

16. Commitments and Contingencies

The Building Authority, University, and WCCC have outstanding purchase commitments under construction contracts and real estate agreements of \$200.0 million and \$120.7 million at June 30, 2019 and 2018, 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, 2019 and 2018 of \$43.3 million and \$26.1 million, respectively.

The University, as an agency of the Commonwealth, is self-insured for property loss exposure, subject to appropriation from the state legislature. However, properties owned by the Building Authority located on a campus of the University, such as the Mullins Center, dining commons, and most dormitories, are insured by the Building Authority. The University and its employees are protected against tort claims through sovereign immunity under Chapter 258 of the Massachusetts General Laws. The University maintains certain liability insurance policies, including commercial general liability, leased automotive liability, directors and officers and comprehensive crime policies. Employees of the University are covered for 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 \$13.9 million and \$14.8 million as of June 30, 2019 and 2018, 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.

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

17. Blended Component Units

Condensed information for the University's blended component units, the Building Authority and WCCC, is presented in the table below for the year ended 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	(52,289)	96,219	(1,732)
Deferred outflows	95,954	-	7,429	-
Total assets and deferred outflows	4,391,735	(52,289)	435,650	(1,732)
Debt, including commercial paper	2,988,872	(3,667)	38,472	-
Other liabilities	168,398	(2,010)	230,137	(1,732)
Total liabilities	3,157,270	(5,677)	268,609	(1,732)
Total net position	\$ 1,234,465	\$ (46,612)	\$ 167,041	\$ -
Condensed information from the Statements of Revenues, Expenses, and Changes in Net Position				
Other revenues	\$ 281,311	\$ (227,997)	\$ 82,675	\$ (52,597)
Total revenues	281,311	(227,997)	82,675	(52,597)
Operation and maintenance of capital assets	8,600	(7,439)	28,871	(23,941)
Depreciation	140,771	-	19,857	-
Interest expense	118,213	(220,558)	7,866	-
Other expenses	3,875	-	17,514	(28,656)
Total expenses	271,459	(227,997)	74,108	(52,597)
Increase in net position	\$ 9,852	\$ -	\$ 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 provided by (used in) financing activities	(299,183)	-	(10,270)	-
Change in cash and cash equivalents	\$ (89,904)	\$ -	\$ 337	\$ -

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

18. Discretely Presented Component Units

As noted in Note 1, UMF and UMDF are discretely presented component units. These Foundations are presented in the aggregate on page 20 of these financial statements. Following is information on investments at UMF, as this disclosure is not included in its entirety elsewhere in these financial statements. UMF's investment portfolio represents approximately 99.8% 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 – Investments in debt and equity securities are measured at fair value primarily based on quoted market prices. Changes in fair value are recorded as unrealized gains or losses on investments. Purchases and sales of investments are recorded as of the trade date. Other investments for which no such quotation or valuations are readily available (alternative investments) are carried at net asset value as a practical expedient to fair value. The estimated fair value of these investments is based on valuations provided by the external investment managers and reviewed by management. Because these investments are not readily marketable, their estimated value is subject to uncertainty and therefore may differ from the value that would

have been used had a ready market for such investment existed. Such differences could be material. Investments contributed to UMF are recorded at fair value on the date of the gift.

UMF utilizes the pooled investment concept whereby all invested funds are included in one investment pool, except for investments of certain funds that are otherwise restricted. Additions, redemptions and transfers to pooled investment funds are assigned a number of shares based upon their fair value at the date of receipt from the pool. On a monthly basis, investment income and capital gains are distributed among unit holders of each pooled investment fund based upon their respective shares held.

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, 2019 and 2018, 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 investment portfolio as of June 30, 2019 (\$ in thousands):

	2019	S&P rating
Debt securities		
U.S. Treasury securities	\$ 38,132	Unrated
Bond fund, including exchange traded funds	1,321	Unrated
Total debt securities	\$ 39,453	

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 investment portfolio as of June 30, 2019 (\$ in thousands):

	2019	Investment maturity
Debt securities		
U.S. Treasury securities	\$ 38,132	1 to 5 years
Bond fund, including exchange traded funds	1,321	1 to 5 years
Total debt securities	\$ 39,453	

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. UMF categorize 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 UMF'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 UMF'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. UMF'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 UMF's custodian of investments 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. UMF'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 UMF's fiscal year end date.

As a practical expedient to estimate the fair value of UMF'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, 2019, UMF had no plans or intentions to sell such investments at amounts different from NAV.

The following table summarizes the fair value of UMF'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	\$ -	\$ 46,570	\$ -	\$ -	\$ 46,570
Debt securities					
U.S. Treasury securities	-	38,132	-	-	38,132
Bond funds, including exchange traded funds	-	1,321	-	-	1,321
Total debt securities	-	39,453	-	-	39,453
Equity securities					
Domestic equities	-	103,697	-	-	103,697
International equities	-	81,527	-	-	81,527
Total equity securities	-	185,224	-	-	185,224
Alternative investments					
Multi-strategy hedge funds					
Equity	95,244	-	-	-	95,244
Long/short	87,152	-	-	-	87,152
Fixed income	39,278	-	-	-	39,278
Absolute return	27,789	-	-	-	27,789
Real assets	8,174	-	-	-	8,174
Private equity	24,511	-	-	-	24,511
Private debt	18,869	-	-	-	18,869
Private real estate	9,967	-	-	-	9,967
Total alternative investments	310,984	-	-	-	310,984
Other securities	-	15,360	-	-	15,360
Total investments	\$ 310,984	\$ 286,607	\$ -	\$ -	\$ 597,591

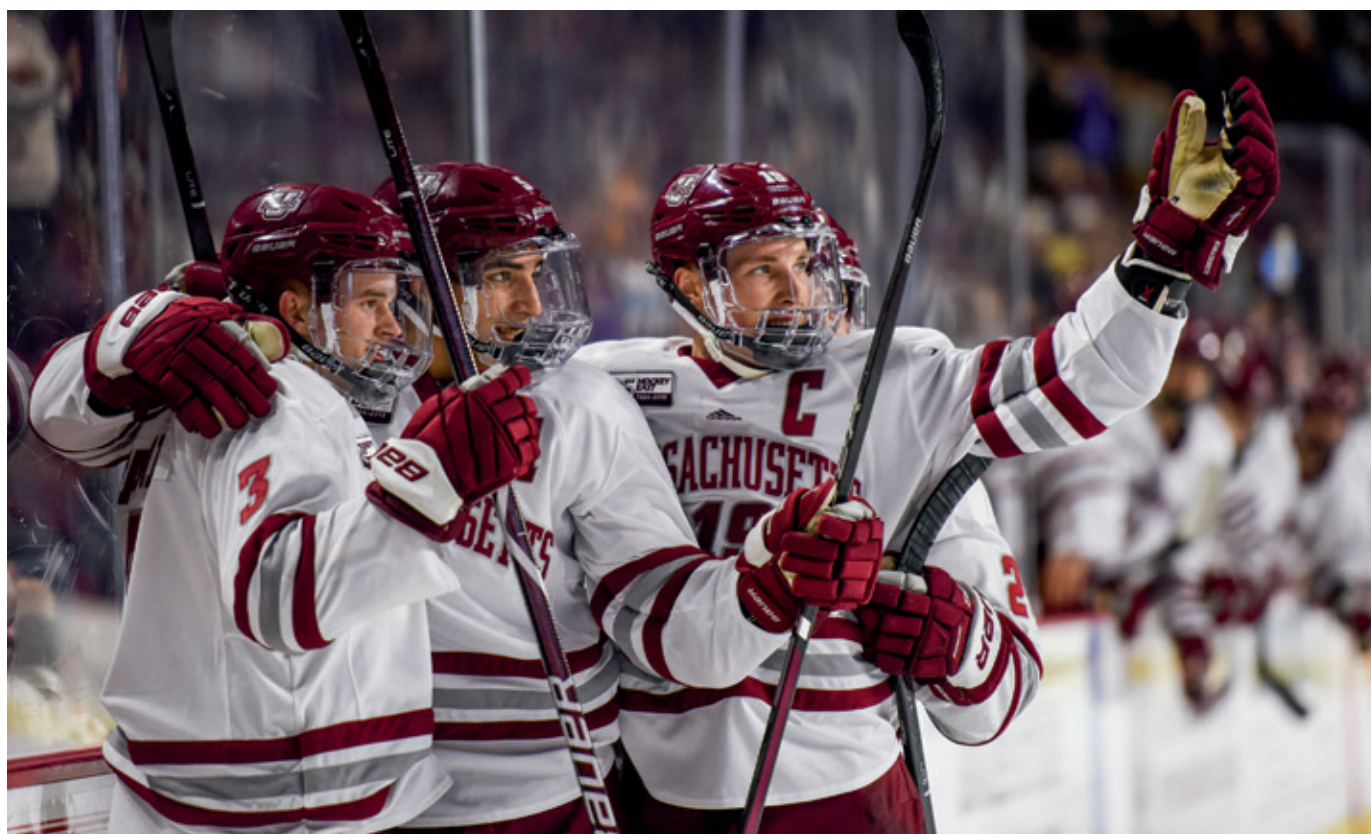
The following table presents unfunded commitments, redemption frequency and notice period for investments that have been valued using NAV as a practical expedient as of June 30, 2019 (\$ in thousands):

	NAV	Unfunded commitments	Redemption terms	Notice period	Redemption restrictions
Alternative investments					
Multi-strategy hedge funds					
Equity	\$ 95,244	\$ -	Daily to quarterly	01–60 days	No lock-up restrictions
Long/short	87,152	10,000	Quarterly to annual	45–80 days	Lock-up provisions range from none to 1 year
Fixed income	39,278	-	Quarterly to annual	30–90 days	Lock-up provisions range from none to 2 years
Absolute return	27,789	-	Daily to annual	45–65 days	No lock-up restrictions
Real assets	8,174	-	Annual	90 days	No lock-up restrictions
Private equity	24,511	19,640	Closed end funds	(1)	Not redeemable
Private debt	18,869	22,177	Closed end funds	(1)	Not redeemable
Private real estate	9,967	3,879	Closed end funds	(1)	Not redeemable
Total	\$ 310,984	\$ 55,696			

(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.

19. Subsequent Events

For purposes of determining the effects of subsequent events on these financial statements, management has evaluated events subsequent to June 30, 2019 and through December 18, 2019, the date on which the financial statements were available to be issued, and determined that there were no matters requiring recognition or disclosure in the accompanying financial statements.



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				
	6/30/18	6/30/17	6/30/16	6/30/15	6/30/14
University's proportion of the net pension liability	3.09%	3.28%	3.12%	3.59%	3.49%
University's proportionate share of the net pension liability	\$ 409,319	\$ 420,234	\$ 429,871	\$ 408,418	\$ 237,134
University's covered-employee payroll	\$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	32.94%	35.96%	37.18%	35.83%	22.35%
Plan fiduciary net position as a percentage of total pension liability	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				
	6/30/19	6/30/18	6/30/17	6/30/16	6/30/15
Contractually required contribution	\$35,843	\$28,292	\$25,618	\$22,386	\$22,463
Contributions in relation to the contractually required contribution	(35,843)	(28,292)	(25,618)	(22,386)	(22,463)
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -
University's covered-employee payroll	\$1,247,098	\$1,242,525	\$1,168,661	\$1,156,082	\$1,139,719
Contributions as a percentage of covered-employee payroll	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. See accompanying independent auditor's report.

SCHEDULE OF THE UNIVERSITY'S PROPORTIONATE SHARE OF THE NET OTHER POSTEMPLOYMENT BENEFITS (OPEB) LIABILITY STATE RETIREES' BENEFIT TRUST

	Based on the measurement date	
	6/30/18	6/30/17
University's proportion of the net OPEB	4.82%	4.67%
University's proportionate share of the net OPEB	\$ 718,955	\$ 817,357
University's covered-employee payroll	\$ 1,242,525	\$ 1,168,661
University's proportionate share of the net OPEB as a percentage of its covered-employee payroll	57.86%	69.94%
Plan fiduciary net position as a percentage of total OPEB liability	7.38%	4.80%

SCHEDULE OF THE UNIVERSITY'S CONTRIBUTIONS STATE RETIREES' BENEFIT TRUST

	For the fiscal year ended June 30	
	6/30/19	6/30/18
Contractually required contribution	\$ 26,137	\$ 21,421
Contributions in relation to the contractually required contribution	(26,137)	(21,421)
Contribution deficiency (excess)	\$ -	\$ -
University's covered-employee payroll	\$ 1,247,098	\$ 1,242,525
Contributions as a percentage of covered-employee payroll	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. See accompanying independent auditor's report.



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University of Massachusetts

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

Appendix D: Credit Ratings

Rating Action: Moody's assigns Aa2 to University of Massachusetts Building Authority's (MA) Senior Series 2020-1,2 &3 bonds; outlook stable

17 Dec 2019

New York, December 17, 2019 -- Moody's Investors Service has assigned Aa2 ratings to the University of Massachusetts Building Authority's (UMBA) planned \$212 million Project Revenue Bonds Senior Series 2020-1, \$130 million Project Revenue Bonds Senior Series 2020-2 (Federally Taxable), and \$227 million Refunding Revenue Bonds Senior Series 2020-3 (Federally Taxable) issued on behalf of the University of Massachusetts. The newly issued bonds are fixed rate, maturing in 2050, 2051 and 2044, respectively. Concurrently we have affirmed the Aa2, VMIG 1 and P-1 ratings on approximately \$2.6 billion of outstanding revenue bonds and commercial paper. The outlook is stable.

RATINGS RATIONALE

The Aa2 rating reflects the university's large scale and scope of operations, inclusive of the flagship and multiple campuses across the state, its strong relationship with an academic medical center and its excellent strategic positioning that incorporates strengthened fiscal oversight. UMass benefits from its solid operating and capital support from the Commonwealth of Massachusetts (Aa1 stable), significant research activity and growing net tuition revenue. Challenges include the university's weaker spendable cash and investments to operations and debt at 0.4x and 0.5x, respectively, relative to peers, with modest 2.0x debt service coverage and extensive capital plans, including managing rising investment in 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.

The Aa2/VMIG 1 rating on the variable rate bonds and P-1 rating on the commercial paper program are based on the structure of the standby bond purchase agreements that provide liquidity support, short-term ratings of the liquidity facility banks, and UMass' long-term rating.

RATING OUTLOOK

The stable outlook reflects our expectation of continuing steady enrollment and positive operating performance, continued solid state support and growth in financial resources. Expectations of measured increases in debt beyond that planned for mid-fiscal 2020 also inform the stable outlook, especially with regard to maintaining steady debt service coverage and increasing cash and investments.

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

- 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

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 2019, spendable cash

and investments totaled \$1.56 billion relative to the certified amount of approximately \$236 million.

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 U.S. Bank NA. that expires August 12, 2022.

USE OF PROCEEDS

Proceeds of the Senior Series 2020-1 and 2020-2 bonds will be used for planned capital projects at the Amherst, Dartmouth and Lowell campuses and to pay costs of issuance. Proceeds of the Senior Series 2020-3 bonds will be used to refund all or portions of the UMBA Senior Series 2013-1, 2013-3 and 2014-1, MDFA 2011 (UMass) and MDFA (WCCC) Series 2011 bonds; and to pay costs of issuance.

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. Draft 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.

METHODOLOGY

The principal methodology used in the long-term ratings was Higher Education published in May 2019. The principal methodology used in the short-term enhanced ratings was Variable Rate Instruments Supported by Conditional Liquidity Facilities published in March 2017. Please see the Rating Methodologies page on www.moodys.com for a copy of these methodologies.

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CREDIT OPINION

18 December 2019


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University of Massachusetts

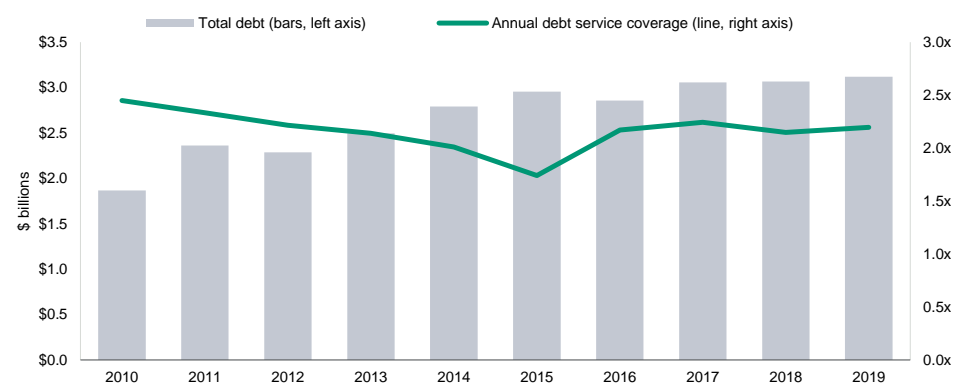
Update to credit analysis

Summary

[University of Massachusetts'](#) (Aa2 stable) strong credit quality stems from its large scale and scope of operations, inclusive of the flagship and multiple campuses across Massachusetts, its strong relationship with an academic medical center and its excellent strategic positioning that incorporates strengthened fiscal oversight. Credit strengths are also drawn from solid operating and capital support from the [Commonwealth of Massachusetts](#) (Aa1 stable), significant research activity and growing net tuition revenue. Challenges include the university's weaker spendable cash and investments to operations and debt at 0.47x and 0.50x, respectively, relative to peers, with modest 2.2x debt service coverage and extensive capital plans, including managing rising investment in 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

Recent years' improvement in financial performance has led to debt service coverage above 2.0x despite increased debt



Total debt in fiscal years 2017, 2018 and 2019 includes PPP projects at the Boston and Dartmouth campuses. The 2019 PPP project-related debt totaled \$262 million.

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 oversight leading to good cash flow margins and 2.2x debt service coverage
- » 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
- » Moderately high debt burden and extensive capital needs, including managing rising investment in public-private partnerships
- » Highly competitive student demand environment, with projections for declining numbers of Massachusetts high school graduates
- » Competitive research funding environment

Rating outlook

The stable outlook reflects our expectation of continuing steady enrollment and positive operating performance, continued solid state support and growth in financial resources. Expectations of measured increases in debt beyond that planned for mid-fiscal 2020 also inform the stable outlook, especially with regard to maintaining steady debt service coverage and increasing cash and investments.

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

- » 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

	2015	2016	2017	2018	2019	Median: Aa Rated Public Universities
Total FTE Enrollment	63,333	63,978	64,530	65,347	66,003	29,353
Operating Revenue (\$000)	2,861,473	3,219,260	3,289,330	3,365,547	3,390,137	1,186,906
Annual Change in Operating Revenue (%)	-1.4	12.5	2.2	2.3	0.7	3.2
Total Cash & Investments (\$000)	1,559,144	1,483,807	1,655,974	1,885,013	2,023,664	1,363,489
Total Debt (\$000)	2,954,159	2,855,910	3,055,930	3,065,672	3,119,251	643,972
Spendable Cash & Investments to Total Debt (x)	0.4	0.4	0.4	0.5	0.5	1.4
Spendable Cash & Investments to Operating Expenses (x)	0.4	0.4	0.4	0.4	0.5	0.7
Monthly Days Cash on Hand (x)	110	92	119	139	135	169
Operating Cash Flow Margin (%)	11.4	12.4	14.0	13.5	14.0	11.2
Total Debt to Cash Flow (x)	9.0	7.2	6.7	6.7	6.6	4.7
Annual Debt Service Coverage (x)	1.7	2.2	2.2	2.1	2.2	2.9

Note: During fiscal 2020, UMass plans to issue \$386 million for projects and to take out commercial paper. With this debt, spendable cash and investments to debt is projected to decline to 0.46x from 0.50x and total debt to cash flow is projected to rise to 7.1x from 6.6x.

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.

[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: multi-campus system with growing enrollment; healthcare and research enterprises add significant scope

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

Enrollment growth at UMass' largest campuses despite difficult student demand environment



Source: Moody's Investors Service

UMass' enhanced marketing strategies are aiding enrollment stability in a challenged student market environment. Five campuses, each with unique strategic profiles, serve growing fall 2019 enrollment of 66,003 FTE students, up 6% over fall 2014. UMass is projecting headcount enrollment growth despite flat to declining demographic projections for Massachusetts high school students, which represent 83% of undergraduate headcount enrollment. Missed enrollment targets at the Dartmouth campus are being actively monitored, with ongoing attention to optimizing recruitment strategies. Future incremental system enrollment growth is planned from a strategic expansion of its UMass Online platform.

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. Similar to other research-intensive organizations, the university is facing an increasingly competitive and difficult environment for research funding, although the university's research expenses have grown modestly over the last few years.

The university has leveraged its academic and practical health care experience into a health care consulting business for government entities and not-for-profits. Commonwealth Medicine is currently profitable, with \$224 million of revenue and \$190 million of expenses for fiscal 2019, but it is also subject to differing competitive forces from the university's core educational programs.

Operating performance: strong state operating and capital support, revenue diversity and improved campus financial accountability

UMass' improved multi-campus fiscal oversight and multiyear planning for financial stability has fostered steady and strengthened operating cash flow and solid debt service coverage. The fiscal 2019 operating cash flow margin was 14.0% providing 2.2x debt service coverage. While system leadership is closely monitoring each campus' budget, with cash flow margins higher than peers (Aa2-median of 11.4%), a moderately high debt burden and fiscal 2020 debt issuance will likely cause the university's debt service coverage to lag peers for several years (Aa2 median of 3.1x). Favorably, a strategic restructuring for a shared services division launched in fiscal 2019 has strong long-term prospects for additional expense efficiencies.

Very good revenue diversity, reflecting student charges, state support and research activity enhance UMass' operating profile. 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. The university remains committed to tuition affordability, limiting tuition increases to 3% or less, with careful determination among each campus.

Historically strong and consistent state operating appropriations, comprising 23% of fiscal 2019 revenue, 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. 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.

Wealth and liquidity: fiscal reserve and capital campaign plans will bolster wealth levels

The system's financial reserve levels, while adequate, are below peer levels when compared to both debt and operations. Cash and investments totaled \$2.0 billion for fiscal 2019, up 30% over fiscal 2015. Spendable cash and investments of \$1.56 billion covered operating expenses by 0.47x, less than the Aa2-median of 0.7x.

Donor-supported reserve growth is modest relative to peers. Improved philanthropic activity would bolster growth in cash and investments, complementing stable operating cash flow and favorable focus to rebuild reserves. Fundraising programs across four of the campuses are in various phases, with an \$800 million aggregate target. The UMass-Amherst \$300 million goal was the largest among the campuses and was exceeded at \$379 million. Some improvement in annual donor activity has occurred, with an aggregate \$134 million reported for fiscal year 2019, up from \$117 million for fiscal 2016.

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 \$973 million at fiscal end June 30, 2019 was up 6.7% 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. 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.

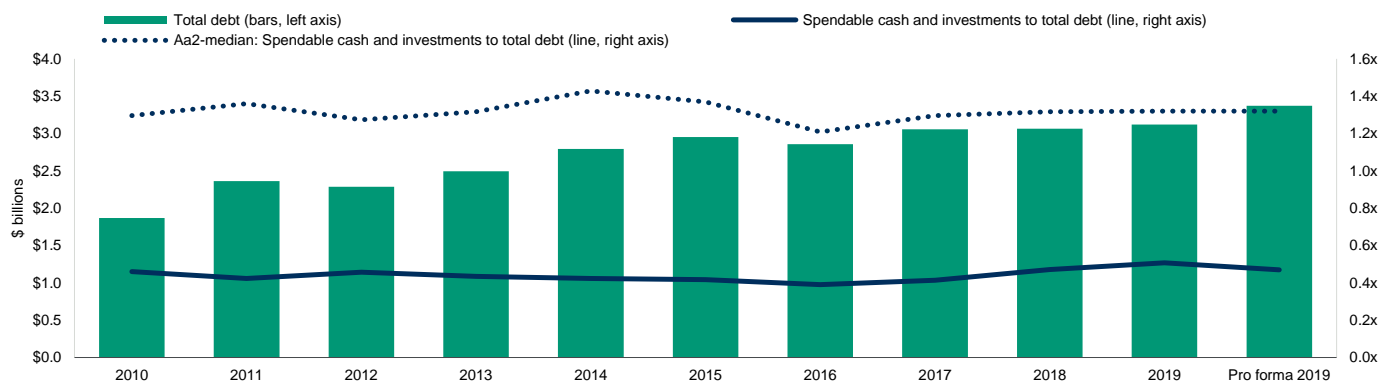
Leverage: elevated leverage, but predominantly fixed rate debt; exposure to PPP financing and pension liability

The university's leverage is elevated relative to rated peers. Its debt burden will remain manageable with operating cash flow margins of 13-14% and debt service coverage exceeding 2.0x, despite a planned fiscal 2020 new money issuance of \$386 million. In the absence of substantial growth in cash and investments, a decrease in debt service coverage to below 2.0x including a decline in spendable cash and investments to debt below 0.4x could adversely pressure the university's credit profile.

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. While \$100 million in principal was paid down in fiscal 2019, debt rose as the system used its commercial paper for preliminary project funding. 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. Favorably, UMass makes principal payments of roughly \$100 million annually, with the current schedule reducing 54% of outstanding debt within 15 years.

Exhibit 4

UMass' spendable cash and investments to debt is weaker than the Aa2-median, but with growing wealth has remained constant despite rising debt



A portion of the university's outstanding debt includes \$132 million of its \$200 million Series 2013A and 2013B Commercial Paper (CP) programs. All of the outstanding CP will be taken out by the Series 2020 financing.

Source: Moody's Investors Service

A portion of the university's outstanding debt includes \$132 million of its \$200 million Series 2013A and 2013B Commercial Paper (CP) programs. All of the outstanding CP will be taken out by the Series 2020 financing.

The system has strong management oversight for its detailed capital planning and approval process that fully integrates campus master plans and five-year forecasts. 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.

The university is expanding 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, which was opened in fall 2018. A second project at the UMass Dartmouth campus, which is currently under construction, will be a 1,210 two-building student housing facility to open in fall 2020. Planning for a third PPP at the Amherst campus for housing projects is underway. 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.

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 [U.S. Bank NA](#). Both CP note SBPAs expire on August 12, 2022. Moody's does not rate the Series 2013A CP notes.

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 2019, spendable cash and investments totaled \$1.56 billion relative to the certified amount of approximately \$236 million.

Virtually all of the university's outstanding debt was issued through the UMBA. Two of the university's outstanding debt issues were issued through the Massachusetts Health and Educational Facilities Authority (MHEFA) and two through the Massachusetts Development Finance Authority (MDFA).

Worcester City Campus Corporation (WCCC) is a 501(c)(3) not-for-profit organization which was originally established as a real estate holding company that funded projects at the medical school in Worcester. WCCC is a blended component unit and is consolidated within the university's audited financial statements. Payments under the WCCC Loan and Trust Agreement are an unconditional obligation of WCCC. Per a Financing Agreement between MDFA and UMass, the debt is an unconditional general obligation of the university and requires prompt transfer of funds to the bond trustee if notified that WCCC has failed to make required debt service payments to the trustee. Two series of bonds are secured under this agreement: the MHEFA issued Series 2005-D and MDFA issued Series 2011, which were outstanding in a combined amount of \$5.5 million at June 30, 2019.

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 N.A.](#), [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 November 29, 2019, the swaps had a combined notional value of \$295 million and a combined mark to market swap liability of \$56.7 million.

Pensions and OPEB

The university has moderate exposure to additional debt-like 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.

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.

Environmental, social and governance considerations

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.

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.

Like most of the higher education sector, environmental considerations are not a material credit driver for UMass at this time.

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 6

UMass - scorecard for report

Rating 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)	6.6	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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University of Massachusetts Building Authority; Public Coll/Univ - Unlimited Student Fees

Credit Profile		
US\$227.065 mil rfdg rev bnds senior ser 2020-3 due 11/01/2044		
<i>Long Term Rating</i>	AA-/Stable	New
US\$212.3 mil proj rev bnds senior ser 2020-1 due 10/28/2051		
<i>Long Term Rating</i>	AA-/Stable	New
US\$129.8 mil rfdg rev bnds senior ser 2020-2 due 10/28/2050		
<i>Long Term Rating</i>	AA-/Stable	New
Massachusetts Development Finance Agency, Massachusetts		
University of Massachusetts System, Massachusetts		
Massachusetts Development Finance Agency (University of Massachusetts System)		
<i>Long Term Rating</i>	AA-/Stable	Affirmed

Rationale

S&P Global Ratings assigned its 'AA-' rating to the University of Massachusetts Building Authority's senior series 2020-1, series 2020-2, and series 2020-3 project and refunding revenue bonds, to be issued for the University of Massachusetts. At the same time, S&P Global Ratings affirmed its 'AA-' long-term rating and underlying rating (SPUR) on the University of Massachusetts' revenue bonds previously issued by the authority and other issuers. In addition, we affirmed our 'AA-/A-1' rating on the series 2008-1 bonds. The rating outlook is stable.

We assessed the system's enterprise profile as very strong, characterized by growing enrollment, 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, moderate revenue diversity, and growing support from the state, which are 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;
- Healthy support by the commonwealth of Massachusetts with increased appropriations recently;
- Consistently positive operating performance and the expectation of stable performance in the near term;
- Steady trend of enrollment growth, which is expected to continue, with an acceptance rate that remains sound at

67% 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 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. The system plans to issue about \$212.3 million in series 2020-1 tax-exempt bonds to fund various capital improvements primarily at the Amherst, Lowell, and Dartmouth campuses. It also plans to issue about \$129.8 million in series 2020-2 taxable bonds to fund a portion of the costs of acquisition of the Mount Ida Campus of the Amherst Campus and construction of a new community-based outpatient clinic for veterans on the Worcester Campus. Another \$227.1 million in series 2020-3 taxable bonds is planned to be used to refund about \$202 million of outstanding revenue bonds for interest savings. As of June 30, 2019, the system had outstanding debt (including notes, capital lease and commercial paper [CP]) of approximately \$2.86 billion. Post-issuance, total pro forma debt will be approximately \$3.22 billion.

In fiscal 2013, the authority approved a CP program to help fund the system's capital plan. The program is authorized for \$200 million; as of June 30, 2019, \$131.9 million was outstanding. 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 Dec. 3, 2019, 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.

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.

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. We understand that UMass recently announced the plan to further strengthen its online presence. 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 or the general credit profile of the system.

Outlook

The stable outlook reflects our expectation that during the next two years, the system's financial operations will remain balanced, demand will remain relatively stable, enrollment will continue to grow, and available resources will remain close to current levels while the debt burden remains lower than the system's cap of 8%.

Downside scenario

We could consider a negative rating action if available resources ratios were to decline significantly relative to current levels, if operating results were to deteriorate significantly, if the system issues a significant amount of additional debt without commensurate growth in available resources, or if there is a significant decline in enrollment.

Upside scenario

We do not expect to raise the ratings during the outlook period, given the system's significant capital plans and modest available resources. We could raise the rating in response to a material increase in available resources, solidly positive operating performance, enhanced fundraising results, and continued growth in demand.

Enterprise Profile

Industry risk

Industry risk addresses the higher education sector's overall cyclical and competitive risk and growth by applying various stress scenarios and evaluating barriers to entry, levels and trends of profitability, substitution risk, and growth trends observed in the industry. We believe the higher education sector represents a low credit risk when compared with other industries and sectors.

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. The system reported a fall 2019 full-time-equivalent (FTE) headcount of 66,003, which is a 1% increase from fall 2018. Undergraduate FTEs represent about 80.4% of FTE students, which is 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. The smallest campus is the medical campus at Worcester, which has 1,234 students.

First-year demand is stable and solid relative to category medians. Fall 2019 freshman demand metrics remained stable, with applications growing 5.8% from the prior year to 78,615. Selectivity has been relatively steady over the past few years and was 67% for fall 2019, which we view as sound compared with the medians for the rating category. The 22% matriculation rate for fall 2019 is similar to those in recent years and reflects New England's highly competitive public and private higher education market. UMass has a strong transfer population, which management intends to maintain. Transfer student applications have been relatively stable in recent years, with a 70% acceptance rate and a 58% matriculation rate for fall 2019. Approximately 4,199 students transferred to system institutions, which is slightly lower than prior years' figures.

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 2019, but the fall 2018 rate was above average at 84.3%, with some variation across campuses. The six-year graduation rate was also not available for fall 2019, but the fall 2018 rate improved to 68.8%. The system's mission remains access and affordability. For fall 2019, tuition and mandatory fees at the Amherst campus increased to \$16,389 for in-state students and to \$35,710 for out-of-state students. Room and board charges at the Amherst campus were \$13,004. 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. We understand that UMass recently announced the plan to further strengthen its online presence. The details of the plan are yet to be disclosed, and we'll continue to closely monitor the progress as well as the potential impact to the system and the broader online education market.

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 are currently engaged in campaigns, which are progressing well relative to expected goals. 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 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. Recent changes in senior management include a new senior vice president (SVP) for administration & finance who joined in February 2017, an interim SVP for academic affairs who started in June 2018 after the former SVP became the interim chancellor of the Boston campus, a new general counsel who started in June 2017, and a new chancellor for the Dartmouth campus who started in July 2017. 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.

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 debt load is aggressive and remains an offsetting rating factor.

The University of Massachusetts Building Authority 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. Management

budgets for another modest surplus in fiscal 2020 and expects similar to fiscal 2019 operating results. The system remains focused on revenue enhancement and cost containment efforts to enhance the student experience, allow for capital improvements, and maintain its financial position.

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, MIT, 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.

Overall, the commonwealth appropriations have increased in recent years and we expect modest increases in the near term. We view the recently enhanced 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. Adjusted unrestricted net assets of \$1.12 billion (which includes \$1.08 billion of system unrestricted net assets, adjusted for the pension and other postemployment benefit liabilities, and \$37 million in foundation unrestricted net assets) were equal to 30.5% of fiscal 2019 adjusted operating expenses. Fiscal 2019 adjusted unrestricted net assets 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 \$973 million as of June 30, 2019. For fiscal 2019, the system endowment return was 6.7%, and management estimates that it was invested 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 those of similarly sized and comprehensive universities, and it is higher than our medians for the rating category. Pro forma maximum annual debt service in 2021 of \$233 million is

above average, at 6.4% of fiscal 2019 adjusted operating expenses.

The high debt levels and elevated maximum annual debt burden remain a challenge, in our opinion, and we believe the additional capital plans will continue to limit balance sheet growth. Nevertheless, we believe overall debt levels will remain manageable at the current rating because there are university trustee policies in place 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 14% 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 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 \$389 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 in the next couple of years. We expect that the system can absorb modest additional debt at the current rating level barring a significant decline in available resources or material deterioration to 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 67.9% in fiscal 2018, 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 1.34% of total adjusted operating expenses, which we believe is currently manageable. For more information on the plan, please see the state report published April 18, 2019.

University of Massachusetts
Enterprise And Financial Statistics

	--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.	2,856,986	2,937,026	2,927,970	2,855,741	828,692
Proposed debt (\$000s)	N.A.	569,120	N.A.	N.A.	N.A.	MNR
Total pro forma debt (\$000s)	N.A.	3,223,791	N.A.	N.A.	N.A.	MNR
Pro forma MADS	N.A.	236,783	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.	6.43	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
Related foundation market value (\$000s)	N.A.	615,356	587,055	548,451	449,966	688,435

University of Massachusetts (cont.)
Enterprise And Financial Statistics

	--Fiscal year ended June 30--					Medians for 'AA' rated public colleges & universities
	2020	2019	2018	2017	2016	2018
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.	45.5	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.	34.8	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.

Ratings Detail (As Of December 18, 2019)

Univ of Massachusetts Bldg Auth rfdg rev bnds

Long Term Rating AA-/Stable Affirmed

Univ of Massachusetts Bldg Auth PCU_USF

Long Term Rating AA-/Stable Affirmed

Univ of Massachusetts Bldg Auth PCU_USF

Long Term Rating AA-/A-1/Stable Affirmed

Unenhanced Rating NR(SPUR) Current

Univ of Massachusetts Bldg Auth PCU_USF

Long Term Rating AA-/Stable Affirmed

Massachusetts Development Finance Agency, Massachusetts

University of Massachusetts System, Massachusetts

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

Long Term Rating AA-/Stable Affirmed

Massachusetts Hlth & Educl Facs Auth (Univ of Massachusetts) VRDB rev bnds ser A

Unenhanced Rating NR(SPUR) Current

Short Term Rating NR Current

Massachusetts Hlth & Ed Fac Auth (Univ of Massachusetts) various rev bnds

Ratings Detail (As Of December 18, 2019) (cont.)		
<i>Unenhanced Rating</i>	AA-(SPUR)/Stable	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		
<i>Long Term Rating</i>	AA-/Stable	Affirmed
University of Massachusetts Bldg Auth (University of Massachusetts System) (AGM)		
<i>Unenhanced Rating</i>	AA-(SPUR)/Stable	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Stable	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Stable	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Stable	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Stable	Affirmed
Univ of Massachusetts Bldg Auth (University of Massachusetts System) PCU_USF		
<i>Long Term Rating</i>	AA-/Stable	Affirmed

Many issues are enhanced by bond insurance.

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Fitch Rates University of Massachusetts' Revs 'AA'; Outlook Stable

Fitch Ratings - Chicago - 18 December 2019:

Fitch Ratings has assigned a 'AA' rating to approximately \$257 million of Project Revenue Bonds Senior Series 2020-1, \$129 million Project Revenue Bonds Senior Series 2020-2 (Taxable), and \$227 million Refunding Revenue Bonds Senior Series 2020-3 (Taxable) to be issued by the University of Massachusetts Building Authority on behalf of the University of Massachusetts (UMass).

In addition, Fitch has affirmed the long- and short-term ratings detailed below:

--\$2.7 billion of University of Massachusetts Building Authority Project Revenue, Refunding Revenue, and Taxable Refunding Revenue, various Senior Series Bonds (Excludes Commonwealth-Guaranteed Bonds) at 'AA';

--\$29.5 million Massachusetts Development Finance Authority Revenue Bonds (Worcester City Campus Corporation Issue - UMass project) and Massachusetts Health and Educational Facilities Authority (UMass Issue) Revenue Bonds at 'AA';

--\$200 million UMBA tax-exempt and taxable commercial paper (CP) bank notes at 'AA';

--\$20 million MHEFA variable rate demand bonds (VRDBs) Series A (UMass issue) at 'AA'/F1+'.

The Rating Outlook is Stable.

The 2020 bonds are expected to price the week of Jan. 6, 2020. Proceeds will be used to support approved capital projects, and to refund portions of the series 2011 (UMass and Worcester), 2013-1, 2013-3 and 2014-1 bonds.

SECURITY

UMass revenue bonds are secured by a pledge of gross unrestricted revenue of the university and other legally available funds.

ANALYTICAL CONCLUSION

The 'AA' Issuer Default Rating (IDR) and revenue bond rating reflect the University of Massachusetts' (UMass) role as the Commonwealth of Massachusetts' flagship public research system of higher education, the strong operating and capital support provided by the Commonwealth (AA+/Stable) and an expectation that UMass' financial profile will remain resilient via steady enrollment trends and a material capital improvement program.

KEY RATING DRIVERS

Revenue Defensibility:: 'aa'

Steady Demand and Strong State Support

The 'aa' revenue defensibility assessment reflects UMass' very steady enrollment trends over time, against somewhat mixed demand characteristics (selectivity, matriculation) that are reflective of a statewide public system. The 'aa' also reflects the consistent and solid support provided by the 'AA+'/Stable rated Commonwealth of Massachusetts.

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 unaudited fiscal 2019) going forward via UMass's ongoing system-wide efficiency efforts, against a capital improvement plan that is robust and ongoing.

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 (unaudited), equal to nearly 50% of total expenses and 44% of adjusted debt, and its leverage levels are expected 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.

RATING SENSITIVITIES

FINANCIAL PROFILE PRESSURE: With relatively modest available funds relative to operations and debt for the rating, the failure of UMass to maintain relatively steady available funds to support any potential increase in debt levels could pressure the long term, and commensurately, the short term ratings.

CREDIT PROFILE

The University of Massachusetts 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 system-wide online education (UMass Online), which in fiscal 2019 offered over 1,500 online and blended courses with nearly 150 certificate and degree programs.

The University of Massachusetts Building Authority, the university's debt issuance arm (reported as a blended component unit of the university), is a public instrumentality of the Commonwealth of Massachusetts and is empowered to construct dormitory, auxiliary, academic and other facilities for the university's campuses. Fitch does not view the UMBA as having any distinct operating risk from that of UMass, thus there is no separate IDR assigned.

UMBA revenue bonds and commercial paper notes are special obligations of the University of Massachusetts Building Authority (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)

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. UMass Online has also supported enrollment growth (over 80,000 course enrollments in 2019, up 3% year over year). Student quality has also remained steady to improving, with a notable and consistent 85% retention rate of freshman students. Selectivity has 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 public system.

Solid state support continues, and is expected to remain steady to modestly improving going forward. Total state appropriations (including for fringe benefits) were \$783 million in fiscal 2019, equal to about 22% of total operating revenue and up about 3.7% over the total in 2018. A modest improvement in the base appropriation is expected for fiscal 2020, and the state is expected to continue to fund its share of collective bargaining agreement costs for the current (through 2020) and next (2021-2023) major union negotiation periods.

Operating Risk

UMass' financial profile is 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. UMass leadership continues to focus on sufficient and sustainable operations at each of its campuses, and as a system overall. Fitch expects steady cash flow levels near 12% going forward, with revenue growth that marginally exceeds expense growth. Solid cash flow is an important offset to UMass' sizable capital plans, and management continues to closely monitor its capital and debt levels. UMass' policy is to maintain debt service-to-total expenditures at no more than 8% by campus, which they've been largely successful at maintaining in recent years. Fundraising is a positive consideration, as UMass generates consistent annual and solid campaign giving results. Annual giving has been consistently above \$115 million since fiscal 2014, and UMass also benefits from fairly routine state capital appropriation support (equal to \$25 million in unaudited fiscal 2019). However, these levels are relatively small in magnitude against total UMass' total revenue base of \$3.4 billion in 2019. UMass' robust \$2.1 billion five-year capital plan through 2023 includes 45 projects, which will be funded from a combination of additional debt, fundraising, state support and internal resources. Approximately \$800 million of the \$2.1 billion has already been spent to date.

Financial Profile

UMass' debt burden remains manageable. 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. Some additional debt is likely, which 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 would be accompanied by growth or maintenance of resources sufficient to cover debt service to 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 terms 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 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 (MSERS) 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.

Asymmetric Additional Risk Considerations

No asymmetric additional risk considerations apply to UMass' ratings.

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of 3 - 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.

RATING ACTIONS

ENTITY/DEBT	RATING	PRIOR
University of Massachusetts (MA)	LT IDR AA ● New Rating	
University of Massachusetts (MA) /General Revenues/1 LT	LT AA ● Affirmed	AA ●
University of Massachusetts (MA) /Self-Liquidity/1 ST	ST F1+ Affirmed	F1+

Additional information is available on www.fitchratings.com

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Applicable Criteria

U.S. Public Finance Short-Term Debt Rating Criteria (pub. 01 Nov 2017)
U.S. Public Finance College and University Rating Criteria (pub. 03 Jun 2019)
Public Sector, Revenue-Supported Entities Rating Criteria (pub. 07 Nov 2019)

Additional Disclosures

Dodd-Frank Rating Information Disclosure Form
Solicitation Status
Endorsement Policy

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Appendix E: UMass Accountability

UMass Accountability Matrix

Report	Frequency	Primary Report Audience:	Required by (site of statute or Board Policy)	UMass Department Lead	Reported To: Executive Branch Agencies	Reported To: Legislature	Reported To: UMass Specific	Reported To: "Other" Entities (specify)	Link to Latest Report
Academic Quality Assurance and Development (AQAD)	annual	BOT		Academic Affairs			BOT		
Periodic Multi-year Review	annual	BOT		Academic Affairs			BOT		
Fall 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	https://www.umassp.edu/emergency-management-continuity/annual-reports
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	https://www.umassp.edu/aasair/export-controls
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.umassp.edu/budget-office/annual-budget
FY State Spending Plan Update	annual	State		Budget	ANF				Not on website
EOHHS Financial Aid Claim to TANF	twice annual	State	N/A	Budget	EOHHS				Not on website
BHE Waiver Report	annual	State	N/A	Budget	DHE				DHE database
BHE Tuition & Fee Report	annual	State	N/A	Budget	DHE				http://www.mass.edu/datacenter/tuition/AppendixTuitionFeesWeight7.asp
General Purpose Financial Statements/External Audit	annual	State	State Comptroller, Bond Documents	Controller	Comptroller	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umassp.edu/controller/reports
MMARS - Revenue & Expenditure report for all non-appropriated funds	monthly	State	N/A	Controller	Comptroller				
MMARS -- Biweekly payroll for all state and non-state funded employees	biweekly	State	N/A	Controller	Comptroller				
Preliminary Admissions and Enrollment Data	annual	State		Institutional Research	DHE		BOT		
Annual HEFA Assurance Disclosure	annual	State			ANF				Not on website
Operating Budget	annual	Strategic Planning	Board Policy T92-031	Budget	ANF EOE	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umassp.edu/budget-office/annual-budget
Capital Plan	annual	Strategic Planning	Board Policy T93-122	Budget	ANF DCAMM	W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umassp.edu/budget-office/capital-planning
Debt Affordability Analysis	annual/as required	Strategic Planning	Board Policy T09-050	Budget	ANF				Included in Financial Projection and Capital Plan
Efficiency & Effectiveness Report	annual	Strategic Planning	N/A	Budget		W&M Chairs HE Comm Chairs Speaker Senate President	BOT		https://www.umassp.edu/efficiency-effectiveness
UMA - Strategic Plan		Strategic Planning		Campus			President / BOT		https://www.umass.edu/chancellor/sites/default/files/strategic-planning/JTFSO-Phase-I-Report.pdf
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		
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