

ANNUAL REPORT
OF THE
UNIVERSITY OF MASSACHUSETTS
FOR THE FISCAL YEAR ENDED JUNE 30, 2016

The following Annual Report of the University of Massachusetts (the “University” or “UMass”) is submitted in connection with Continuing Disclosure Agreements for bonds issued by the Massachusetts Development Finance Agency (MDFA) or its predecessor agency, the Massachusetts Health and Educational Facilities Authority (MHEFA), as follows:

- MHEFA \$99,325,000 Revenue Bonds, Worcester City Campus Corporation Issue (University of Massachusetts Project), Series D (2005)
- MHEFA \$10,435,000 Revenue Bonds, University of Massachusetts Issue, Series D (2007)
- MHEFA \$118,750,000 Revenue Bonds, Worcester City Campus Corporation Issue (University of Massachusetts Project), Series E (2007)
- MHEFA \$101,745,000 Revenue Bonds, Worcester City Campus Corporation Issue (University of Massachusetts Project), Series F (2007)
- MHEFA Variable Rate Demand Revenue Bonds, University of Massachusetts Issue, Series A
- MDFA \$29,970,000 Revenue Refunding Bonds, University of Massachusetts Issue, Series 2011
- MDFA \$10,495,000 Revenue Refunding Bonds, Worcester City Campus Corporation Issue (University of Massachusetts Project), Series 2011

In addition, audited financial statements for the University for the fiscal year ending June 30, 2016 are submitted with the operating data set forth below.

The Worcester City Campus Corporation is submitting its audited financial statements for the year ending June 30, 2016 as its Annual Report filing.

HISTORY AND MISSION

The University is a state coeducational institution for higher education with separate campuses at Amherst, Boston, Dartmouth, Lowell and Worcester in The Commonwealth of Massachusetts (the “Commonwealth”). The University was established in 1863 in Amherst, under the provisions of the 1862 Morrill Land Grant Acts, as the Massachusetts Agricultural College. It became known as the Massachusetts State College in 1932 and in 1947 became the University of Massachusetts. The Boston and Worcester campuses were opened in 1965 and 1970, respectively. The Lowell and Dartmouth campuses (previously the University of Lowell and Southeastern Massachusetts University, respectively) were made a part of the University by a legislative act of the Commonwealth, effective September 1, 1991.

The University’s core mission is “*to provide an affordable and accessible education of high quality and to conduct programs of research and public service that advance knowledge and improve the lives of the people of the Commonwealth, the nation and the world.*” For Fall 2016, the University enrolled 74,496 students. The University’s five campuses are geographically dispersed throughout the Commonwealth and possess unique and complementary missions. In addition, the University has a system-wide online education consortium called UMassOnline, which in academic year 2015-2016 offered approximately 1,500 online and blended courses and had 70,864 course enrollments.

The University was rated as one of the world’s best universities in the *Times Higher Education* of London’s “World University Rankings” for 2016-2017. UMass was ranked 165th out of the top 400 universities in the world and was the only public university in New England to be listed in the global top 200. The University was ranked fifth highest in Massachusetts, eighth highest in New England, 29th highest in American public universities and 58th highest of all American institutions (public or private). In addition, for the first time, all four of the UMass undergraduate campuses were rated in the “National Universities” category in *U.S. News & World Report’s* (“*U.S. News*”) Best Colleges rankings – making UMass one of the few university systems in the nation to have each campus so acclaimed. Adding to its global reputation, total research and development expenditures at the University reached approximately

\$632 million in fiscal year 2016, marking the seventh straight year that the University has exceeded the \$500 million mark.

UNIVERSITY CAMPUSES

The University is composed of five campuses, spread across the Commonwealth in Amherst, Boston, Dartmouth, Lowell and Worcester. Each campus has a unique history and plays a unique role in helping the University meet its mission.

Amherst Campus

The Amherst campus (“UMass Amherst” or the “Amherst Campus”), the University’s flagship campus approximately 90 miles west of Boston, is the largest in the University system. With a student body of 23,443 full-time equivalent (“FTE”) undergraduate and 4,897 FTE graduate students enrolled in Fall 2016, the Amherst Campus offers the most comprehensive and varied programs of the campuses in the University system, including liberal arts and professional programs, in addition to doctoral and research programs. It offers six associate-level programs and 112 bachelor’s, 76 master’s and 48 doctoral degree programs. During the 2015-2016 academic year, 44 associate’s, 5,843 bachelor’s, 270 undergraduate certificates, 1,675 advanced degrees and 44 graduate certificates were conferred. Students may enroll in the College of Education, College of Engineering, College of Humanities and Fine Arts, College of Information and Computer Sciences, Isenberg School of Management, College of Nursing, College of Natural Sciences, School of Public Health and Health Sciences, College of Social and Behavioral Sciences and the Stockbridge School of Agriculture.

The 1,400-acre Amherst Campus includes more than 13 million square feet in buildings, including the 28-story W.E.B. DuBois Library, containing over six million volumes including eBooks as well as governmental documents and law collections, the 9,000-seat multi-purpose arena, the William D. Mullins Center, and 52 campus residence halls in seven unique residential areas. Since 2008, the campus opened the Studio Arts Building, the Central Heating Plant, a new student recreation center, an integrated sciences building, a new Campus Police Station and Emergency Operations Center (which was the first new construction on campus to meet LEED certification standards), the Life Science Laboratories Complex and a 1400-bed residential and classroom Commonwealth Honors College complex. A state-of-the-art classroom and academic facility opened in Fall 2014 and a completely renovated South College and a new innovative wood-constructed Design Building is expected to open in January 2017. The iconic Old Chapel, closed since 1986 and listed on the National Register of Historic Places in 2015, underwent a complete renovation and opened in late 2016.

The Amherst Campus is initiating a variety of efficiency and effectiveness initiatives that are expected to save or avoid \$40 million in annual operating costs, including procurement, utility commodities, energy savings and administrative systems. UMass Amherst is a national leader in campus sustainability, recently receiving prestigious awards for its sustainable academics, research and campus operations. In 2014, it was one of only four schools in the country to receive the Climate Leadership Award from Second Nature, reach STARS (Sustainability Tracking, Assessment and Rating System) Gold from the Association for the Advancement of Sustainability in Higher Education (AASHE) and be placed on the *Princeton Review* Green Honor Roll. UMass Amherst continues to be a STARS Gold campus and is ranked among the top 50 Green Colleges by the *Princeton Review*.

The Amherst Campus is now ranked 27th among national public universities by the *U.S. News*, the most-improved top-tier public university in America over the past decade. The 2015 report of The Center for Measuring University Performance, “The Top American Research Universities 2015 Annual Report,” ranks UMass Amherst 73rd for total research and 68th for federal research expenditures among public research institutions. On a number of other measures of competitive success – national academy memberships, faculty awards, doctorates awarded and postdoctoral appointees – the Amherst Campus ranks in the top 60 among public research universities. During fiscal year 2016, the campus once again secured a record amount of sponsored research, including approximately 424 federal awards totaling approximately \$107.1 million. In total, 1,116 awards were secured for a total of approximately \$188.7 million.

In 2016, UMass Amherst completed its first major capital campaign – the largest in Massachusetts public higher education history – by raising \$379.0 million, exceeding the \$300.0 million goal one year ahead of schedule.

Boston Campus

The 175-acre Boston campus (“UMass Boston” or the “Boston Campus”), which is located three miles from downtown Boston on a harbor peninsula with the nearby John F. Kennedy Presidential Library and Museum (the “JFK Library”), the Edward M. Kennedy Institute for the United States Senate (the “Kennedy Institute”) and the Massachusetts State Archives and Commonwealth Museum (the “State Archives”), is currently a non-residential campus. The Boston Campus focuses on the academic needs of the local urban and non-traditional populations and the research and policy needs of business, government and communities in the greater Boston metropolitan region. The Boston Campus has a diverse student body, consisting of 10,280 FTE undergraduate students and 2,821 FTE graduate students enrolled in Fall 2016. The Boston Campus offers 67 undergraduate degree programs, 13 undergraduate certificate programs, 102 master’s programs and graduate certificate programs and 30 doctoral programs through the College of Liberal Arts, College of Science and Mathematics, College of Management, College of Nursing and Health Sciences, College of Public and Community Service, McCormack Graduate School of Policy and Global Studies, College of Education and Human Development, College of Advancing and Professional Studies, School for Global Inclusion and Social Development and School for the Environment.

During the 2015-2016 academic year, the University conferred 321 certificates, 2,564 bachelor’s and 997 advanced degrees at the Boston Campus.

The Boston Campus is the only educational institution in the Northeast to share its campus with a presidential library. The students and faculty have access to the JFK Library, as well as to the State Archives, which houses valuable Massachusetts historic and state government records. The Boston Campus also has over 550,000 books and journals at its Healey Library.

UMass Boston completed the construction of the Integrated Sciences Complex in Fall 2015 and a general academic building known as University Hall was opened for the 2016 spring semester. Additionally, the Kennedy Institute opened in Spring 2015. The Integrated Science Complex and University Hall are both operated by the Boston Campus. The Kennedy Institute is operated by a charitable organization registered in the District of Columbia with the same name and is owned by the University of Massachusetts Building Authority (“UMBA”). The Kennedy Institute operates as a civic, academic and research institution focused on the study of the United States Senate. Although the Kennedy Institute has broad public access and is available for target groups outside of the University, one of the primary purposes of the Kennedy Institute is to enhance the academic and research environment available to the students and faculty of the University. Due to the multi-purpose nature of the Kennedy Institute, the University’s annual financial commitment for the capital and operating expenses of the Kennedy Institute is limited to approximately \$1.25 million.

On May 19, 2010, UMBA purchased the Bayside Exposition Center (the “Bayside Site”) for \$18.7 million. The 20-acre Bayside Site is approximately one-half mile from the Boston Campus and will help meet the space needs of the Boston Campus as it begins to develop new campus facilities and renovate outdated existing facilities. The acquisition of the Bayside Site has initiated a University-led planning process to create a vision for redeveloping the site to further University and local objectives. UMass Boston plans to work with the City of Boston, the Commonwealth, neighbors and the surrounding communities to develop a plan that realizes the potential of the Bayside Site, stimulates economic activity, creates jobs and brings greater activity and opportunity to the region. In the interim, the Bayside Site will allow the University to replace parking eliminated during the above-referenced construction process.

UMass Boston’s 25-year capital plan calls for the redevelopment of the campus with new and renovated facilities, new infrastructure and green space for greater access to and engagement with the public. The first ten years of the capital plan, launched in 2007, calls for more than \$500 million in new facilities and infrastructure construction on the Boston Campus. UMass Boston expects to open its first-ever student dormitory in September 2018, achieving a long-held goal of providing students with an on-campus residential option.

Dartmouth Campus

The Dartmouth campus (“UMass Dartmouth” or the “Dartmouth Campus”) distinguishes itself as a vibrant public research university dedicated to engaged learning and innovative research resulting in personal and lifelong

student success. The Dartmouth Campus serves as an intellectual catalyst for economic, social and cultural transformation on a global, national and regional scale. The Dartmouth Campus offers 54 undergraduate and 43 graduate programs of study (including 13 at the Doctorate level) through the College of Arts and Sciences (with a School of Education), the Charlton College of Business, the College of Engineering, the College of Nursing, the College of Visual and Performing Arts, the School for Marine Science and Technology and the University of Massachusetts School of Law (the “Law School”). The main campus, designed by the eminent architect Paul Rudolf, is located on 710 acres in Dartmouth and is approximately 55 miles south of Boston and 30 miles east of Providence, Rhode Island. Other Dartmouth Campus sites include the Law School in Dartmouth, the School for Marine Science and Technology on the waterfront in New Bedford, the Star Store Center for the Arts in New Bedford, the Center for Innovation & Entrepreneurship in Fall River and offices in New Bedford, Fall River and Fairhaven. In September 2016, the University officially launched a wide-ranging search for a new Chancellor for UMass Dartmouth.

On February 2, 2010, the Massachusetts Board of Higher Education issued approval for UMass Dartmouth to offer the Juris Doctor (J.D.) degree and established the first public law school in the Commonwealth with the Law School. Through the donation of assets to the University of Massachusetts Foundation, Inc. (the “Foundation”), including the facility, equipment, systems and furnishings from an existing private law school, Southern New England School of Law (“SNESL”), the Dartmouth Campus admitted the first class of new students to the Law School in August 2010. The opening August 2010 head count enrollment for the first year was 316, which was composed of 165 new law students and 151 students continuing from SNESL. During the first year, 51 of the 151 mid-stream students graduated with the J.D. degree and the bar pass rate of those who took the Massachusetts Bar was within 15% of the average bar pass rate for Massachusetts law schools accredited by the American Bar Association (“ABA”). The Law School prepared a comprehensive self-study for consideration of provisional ABA accreditation and received an ABA site visit; the final decision for provisional accreditation was granted on June 12, 2012. On December 6, 2016, the Law School received full accreditation from the ABA. Current downturns in admissions to law schools across the country have resulted in a smaller than expected number of new students; the Fall 2016 overall enrollment was 186. Despite lower than expected Law School enrollment, the Dartmouth Campus’s detailed overall enrollment and revenue planning for a variety of admissions-demand scenarios continues to ensure institutional strength and provides for hiring and program development needed to ensure educational quality and success. The Law School has a public-service focus, with a curriculum concentrating on civil and human rights, legal support for businesses, economic justice and community law. The operating plan for the Law School calls for increasing enrollment, the bar pass rate, employment rate, and reputation, as well as assuring compliance with ABA standards.

The Dartmouth Campus had 6,290 FTE undergraduate and 1,268 FTE graduate students enrolled in Fall 2016. During the 2015-2016 academic year, 36 undergraduate certificates, 1,385 bachelor’s and 543 advanced degrees/certificates were conferred. In the most recent edition of the *U.S. News* “America’s Best Colleges” report, UMass Dartmouth achieved a National Tier 1 designation for the first time in its history, rising from its previous designation as a regional university. The College of Engineering is listed among the best undergraduate engineering programs in the country, as are the online programs. The Dartmouth Campus, which is implementing its strategic plan, UMassDTTransform2020, weaves the research, academic, creative and community service activities of faculty and graduate students into the undergraduate experience and into the economic and cultural life of southeastern Massachusetts and beyond. Areas of focus for the strategic plan include marine science, law and public policy, K-12 education, healthcare and economic development.

In Fall 2016, the Dartmouth campus opened the Charlton College Learning Pavilion providing approximately 22,000 square feet of classrooms, meeting spaces, an auditorium and technology-enhanced space. In October 2015, the University broke ground on the \$55 million expansion of its School for Marine Science and Technology in New Bedford and launched its Center for Innovation and Entrepreneurship in Fall River to strengthen the connections between UMass Dartmouth research and regional economic development.

In 2016, UMass Dartmouth was officially designated as a Doctoral University – Higher Research Activity (R2) from the National Carnegie Classification of Institutions of Higher Education at the Center for Postsecondary Research at Indiana University, achieving a major milestone for the University and the region. UMass Dartmouth is the only Massachusetts research university located south of Boston. This designation elevates UMass Dartmouth from its previous designation as a Master’s University.

Lowell Campus

The Lowell Campus (“UMass Lowell” or the “Lowell Campus”) is a doctoral-level research university committed to educating students for lifelong success and conducting hands-on research and outreach that sustains the economic, environmental and social health of the world.

Located in the historic industrial City of Lowell, approximately 25 miles northwest of Boston, the campus spans more than 125 acres along the Merrimack River in three campus clusters – North, South and East. The Lowell Campus had a student body of 11,196 FTE undergraduate and 2,713 FTE graduate students in Fall 2016. The Lowell Campus offers four associate’s, 111 bachelor’s, 48 master’s and 28 doctoral degree programs through the College of Fine Arts, Humanities and Social Sciences, the Kennedy College of Sciences, the Francis College of Engineering, the College of Health Sciences, the Manning School of Business and the Graduate School of Education. The most recent additions to UMass Lowell’s degree inventory are a master’s degree in business analytics, engineering management and public administration, and doctoral degrees in education and in applied psychology and prevention science. During the 2015-2016 academic year, 138 associate’s degrees and undergraduate certificates, 2,333 bachelor’s degrees and 1,592 advanced degrees/certificates were conferred.

UMass Lowell is the second-fastest-rising school on *U.S. News’s* national universities list over the last six years, improving by 31 places. Its dramatic transformation has been driven by the campus’s “2020 Strategic Plan”, which led to rapid gains in enrollment, retention, student achievement, research expenditures and fundraising. Undergraduate enrollment has increased 63% since Fall 2007, with 42% of full-time undergraduates now living on what had historically been a commuter campus. The Fall 2016 incoming class is among the strongest in UMass Lowell history, with an average SAT score of 1171, and an average high school GPA of 3.59. Since Fall 2010, freshmen retention has increased from 78 to 85%, the four-year graduation rate has increased from 26 to 38% and the six-year graduation rate has increased from 51 to 56%. UMass Lowell’s 1,000-student Honors College, established in 2014, had a one-year retention rate of 93%.

The Lowell Campus continues to receive new honors and accolades. In the past year, UMass Lowell received its second consecutive Higher Education Excellence in Diversity (HEED) Award from *Insight Into Diversity* magazine, reached “Gold” status in STARS (Sustainability Tracking, Assessment and Rating System) from the Association for the Advancement of Sustainability in Higher Education (AASHE), and was honored as a Military Friendly School by *G.I. Jobs* magazine for the seventh consecutive year.

Over the last seven years, 13 buildings have been constructed, acquired and redeveloped, fully renovated or built via public-private partnership on the Lowell Campus. In 2009, UMBA purchased the former Doubletree Hotel in downtown Lowell and converted the property into the UMass Lowell Inn & Conference Center (the “ICC”), a multi-purpose property that provides hotel accommodations, high-quality conference space and housing for 500 students. In 2010, UMBA acquired the 6,500-seat Tsongas Arena from the City of Lowell, renaming it the Tsongas Center at UMass Lowell and hosting hockey and basketball games, concerts, functions, University events and other community activities. In 2011, UMBA purchased the former St. Joseph’s Hospital in Lowell, redeveloping it as University Crossing, an important connection point among UMass Lowell’s North, South and East campuses that has become a vibrant hub for students and the community since opening in 2014. The \$80 million, 84,000-square-foot Mark and Elisia Saab Emerging Technologies and Innovation Center (the “Saab Center”) opened in October 2012 as the first new academic building on campus in more than three decades. The opening of the Saab Center was followed by the opening of the \$40 million Health and Social Sciences Building in 2013. Also in 2013, UMass Lowell opened the \$54 million University Suites residence hall, providing suite-style housing for 472 students. A second suite-style residence hall, Riverview Suites, with housing for 800 students, was built by a private developer for lease by UMass Lowell in 2013 with the second phase completed in 2015. In 2014, the Charles J. Hoff Alumni Scholarship Center opened following a private developer’s historic renovation and lease to the campus. In 2015, the McGauvran Center reopened as a hub for dining, learning and gathering following a \$34 million renovation and expansion. During that span, two parking garages were also constructed at a total cost of \$40 million. The campus’s 13th building since 2009, the \$40 million Pulichino Tong Business Center, is expected to open in 2017. UMass Lowell purchased the \$61.5 million Residences at Perkins Park and the Lofts at Perkins Park near East Campus for conversion to student housing in 2017. A renovation of Perry Hall, which houses UMass Lowell’s engineering programs and is intended to encourage additional industry partnerships, is in the design phase. In 2015, UMass Lowell launched a \$27 million project with the Commonwealth’s Accelerated Energy Program (AEP) that is expected to generate \$1.5 million in annual energy savings and reduce campus-wide energy usage by 20% or more.

In July 2013, UMass Lowell athletics officially elevated to Division I in all sports, with 17 sports joining the America East Conference. The reclassification to full Division I status is a four-year process, and UMass Lowell welcomed its NCAA visiting team to the campus in Fall 2016. The ice hockey program has competed in Division I since 1983 and is a member of Hockey East.

Worcester Campus

The Worcester campus (“UMass Worcester” or the “Worcester Campus”) provides general and specialized medical education, engages in a comprehensive program of basic scientific and clinical research and provides graduate level training in biomedical sciences and nursing. Located approximately 40 miles west of Boston and 50 miles east of Amherst, the campus is home to three graduate schools: the School of Medicine (the “Medical School”), the Graduate School of Biomedical Sciences and the Graduate School of Nursing. The Worcester Campus also consists of a \$280 million research enterprise, public service entities such as Commonwealth Medicine and MassBiologics and the University Campus hospital of UMass Memorial Health Care (formerly the Clinical Services Division of the University) which is the clinical partner of the Medical School. Effective March 31, 1998, as enacted by Chapter 163 of the Acts of 1997 of the Commonwealth, the Clinical Services Division of the University and the subsidiaries of a University-related organization, UMASS Health System, were contributed to and merged with and into an independent Massachusetts not-for-profit corporation named UMass Memorial Health Care, Inc. (“UMass Memorial”). Pursuant to an agreement between the parties, the University’s obligations to UMass Memorial are limited to allowing it to remain on the UMass Worcester Campus and to sharing certain capital, operating and shared-services expenses relating to such premises, as more fully described in the notes to the University’s financial statements.

Founded in 1962 by the Massachusetts Legislature and sited in Worcester in 1965, the Worcester Campus welcomed its first class of 16 medical students to campus in 1970. Less than 50 years later, the Worcester Campus has become an internationally renowned hub for medical education, biomedical research and health care innovation. Through its educational, research, healthcare delivery, and service activities, the Worcester Campus’s presence is tangible throughout the Commonwealth. UMass Worcester provides medical education at an affordable cost to Massachusetts residents and graduate education to science and nursing students, offering incentives to graduates who practice primary care and other medical disciplines in underserved areas in Massachusetts. With a nationally recognized program in primary care training, which is perennially ranked in the top 10% of all U.S. medical schools by *U.S. News*, as well as its success in graduating physicians who remain in Massachusetts to establish their careers, the Medical School plays a unique role in fulfilling the health care workforce needs of Massachusetts. The Medical School, therefore, has aligned itself with the Association of American Medical Colleges’ recommendation that medical schools increase the number of physicians they educate to help address the looming shortage of doctors, especially those in primary care fields. The Worcester Campus has, in recent years, increased its class size for the Medical School from 125 to 150 students. Once again and on account of the Medical School’s ongoing commitment to increase the supply of physicians practicing in the Commonwealth, the Worcester Campus is in the midst of another Medical School class size expansion. In the 2017-2018 academic year, the Medical School will welcome a first-year class of 162 students. This further expansion has necessitated identifying and partnering with additional clinical affiliates to ensure an outstanding educational experience for Medical School students. In 2015, the Worcester Campus announced a new affiliation with Cape Cod Hospital in Hyannis, as well as the establishment of its first-ever regional campus in partnership with Baystate Health in Springfield.

For Fall 2016, the Worcester Campus had 1,070 FTE graduate and medical students enrolled in six master’s and six doctoral degree programs, as well as 461 residents and 114 fellows enrolled in residency and fellowship programs accredited by the Accreditation Council for Graduate Medical Education (ACGME). The Medical School Graduate Medical Education enterprise consists of 20 core residency programs and 33 fellowship programs. During the 2015-2016 academic year, two post-master’s certificates and 236 advanced degrees were conferred.

The Medical School has provided medical students with an accessible and exceptional academic experience that strives to prepare students to become physicians who are caring, competent, productive and self-fulfilled in their chosen careers. The Graduate School of Biomedical Sciences, composed of Basic & Biomedical Sciences and Clinical & Population Health Research divisions, trains students in their selected specialty area, while emphasizing a broad background in the basic medical sciences in preparation for research with direct relevance to human disease. The Graduate School of Nursing provides high quality master’s and doctoral-level preparation for advanced-practice nurses and nurse educators. In 2012, the educational program leading to the M.D. degree at the Worcester Campus

was successfully re-accredited by the Liaison Committee on Medical Education (LCME), with a full eight-year cycle. In addition, the NEASC conducted a site visit evaluation for the reaccreditation of UMass Worcester, and the final NEASC reaccreditation report was confirmed in May 2013.

While the Worcester Campus's academic community has evolved over the years, the Worcester Campus's commitment to its founding public mission remains steadfast. The Worcester Campus educates future physicians, researchers, and nurses for the Commonwealth. The Worcester Campus's alumni survey data indicate that 62% of graduates establish their careers in Massachusetts, including 58% of physician graduates, 64% of biomedical scientist graduates and 88% of nursing graduates.

Consistent with its strategic plan and mission, the Worcester Campus supports a highly productive and collaborative research enterprise with outstanding scientific resources and facilities. The Worcester Campus research community includes Nobel Laureate, Breakthrough Prize and Lasker award recipients, three members of the National Academy of Sciences, three members of the Institute of Medicine, one member of the Royal Society and seven Howard Hughes Medical Institute Investigators. The research enterprise at the Worcester Campus is founded upon a world-class basic science research program with well-documented programmatic strengths in RNA biology, gene therapy, receptors and cell signaling, neurodegenerative diseases, cardiovascular diseases, diabetes, immunology and autoimmunity and infectious diseases.

UMassOnline

In February 2001, the University launched UMassOnline, the University's system-wide online education consortium. Headquartered at the President's Office Collaborative Services Facility in Shrewsbury, Massachusetts, UMassOnline enables the University to provide greater access to its educational programs and to increase revenues that can be used to support the campuses. In fiscal year 2016, UMassOnline and the Continuing Education units at the five campuses collaboratively generated tuition revenue of \$96 million and supported over 70,864 course enrollments.

UMassOnline's mission is to provide access to a University of Massachusetts education to students who are unable to attend one of the campuses, serving community needs for education in the critical areas of economic development, health and welfare and education, and raising revenues for support of students, faculty, teaching, outreach and research. To this end, UMassOnline supports the campuses in developing, growing and marketing online programs by funding the development of new online programs, providing faculty support, development and training, providing technology support and by creating and maintaining a robust platform for online learning, assessing new teaching and learning technologies, and deploying marketing programs that will position the University as a high-quality national leader in online higher education, as well as increase online course and program enrollments in the Massachusetts, New England, national and international markets.

In academic year 2015-2016, the University offered over 147 online degrees, certificates and continuing medical education programs, as well as 1,500 online and blended courses.

The University of Massachusetts Collaborative Service Facility

The University established the University of Massachusetts Collaborative Services Facility ("CSF") in November 2003. The CSF is located in Shrewsbury, Massachusetts. The CSF was created for the purpose of consolidating a number of departments within the University President's Office and other UMass organizations in an effort to both reduce costs and better serve the University system.

The University of Massachusetts Club

The University, acting through UMBA, has established an Alumni dining club, known as "the University of Massachusetts Club" or the "Club." The Club opened on October 31, 2005 and is now located on the 32nd floor of One Beacon Street in downtown Boston. As of August 1, 2015, the Club was managed by the not-for-profit organization University Services, Inc.

UNIVERSITY RELATED ORGANIZATIONS

The financial statements of the University include the University and certain other organizations that have a significant relationship with the University. The statements include the University's blended component units, which are UMBA, a public instrumentality of the Commonwealth created by Chapter 773 of the Acts of 1960 of the Commonwealth, as amended, the Worcester City Campus Corporation ("WCCC"), a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code of 1986, and the University of Massachusetts Amherst Foundation, Inc. (the "UMass Amherst Foundation"), a tax-exempt organization that was established in 2003.

The purposes of UMBA are to provide dormitories, dining commons and other buildings and structures for use by the University and other entities associated with the University and to issue bonds to finance such projects. The University created WCCC in 1992 to purchase various assets of Worcester City Hospital, to operate as a real estate holding company, and to foster and promote the growth, progress, and general welfare of the University's Worcester Campus and all of its locations. The subsidiaries of WCCC include Worcester Campus Services, Inc. ("WCS") and U Health Solutions, Inc. ("UHS") (formerly Public Sector Partners, Inc. ("PSP")). WCS has 12 real estate holding company subsidiaries. Through its Board of Directors, the UMass Amherst Foundation leads and supports private fundraising on behalf of UMass Amherst faculty, students and facilities.

The University's discrete component units are the University of Massachusetts Foundation, Inc. (the "Foundation") and the University of Massachusetts Dartmouth Foundation, Inc. (the "Dartmouth Foundation"). These foundations are tax-exempt organizations related to the University and were established 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. The Foundation manages the majority of the University's endowments, including the endowment of the UMass Amherst Foundation. The Foundation and the Dartmouth Foundation are reported in the financial statements of the University as part of the University Related Organizations.

GOVERNANCE

Under the General Laws of the Commonwealth (the "General Laws"), the University is governed by a Board of Trustees (the body herein called the "University Trustees" or the "Board of Trustees of the University") under the coordinating authority of the Commonwealth's Department of Higher Education ("DHE") (successor to the Commonwealth Board of Higher Education). The day-to-day operations of the University are directed by a team of administrative officers of the University, the chief executive officer being the President of the University (the "President").

The General Laws give the University Trustees the authority to govern the University and to appoint the President, the Chancellors (the senior administrative officers of each campus) and other officers and members of the professional staff. The General Laws also grant to the University Trustees the legal right to establish and manage non-appropriated funds, which funds include, for example, tuition, certain student fees, grants and contracts, and funds used to support certain self-sufficient operations within the University. See "UNIVERSITY REVENUES AND BUDGETING" below. The University Trustees consist of 19 voting members and three non-voting members. Seventeen voting members of the University Trustees are appointed by the Governor of the Commonwealth (the "Governor"). One of these appointees is the Secretary of Education, as mandated by Chapter 27 of the Acts of 2008 and at least five of those appointed must be alumni of the University and one must be a representative of organized labor. Two of the voting members are full-time students of the University and three additional full-time students act as non-voting members. The student members are elected annually from each of the five campuses and the two voting student positions are rotated annually among the members representing the five campuses. The University Trustees, except for the student members, serve five-year staggered terms, and are eligible for reappointment for an additional five-year term.

The President is responsible for implementing the policies of the University Trustees and for providing leadership for the activities and operations of the University. The President's Office is responsible for the development of academic and financial policies, overall coordination of University activities, and certain University-wide operational activities, including Internal Audit, the General Counsel's office, the Treasurer's and Controller's functions, Information Systems and Human Resources.

Education System Reorganization

In February 2008, legislation was passed that reorganized the leadership structure of education in the Commonwealth. A cabinet-level executive office of education was established with comprehensive education oversight, including the following departments: Early Education, Elementary and Secondary Education and DHE. The legislation also established a position of Secretary of Education whose authority includes authorizing the hiring of the respective Commissioners of the education departments, approving long-term planning, and approving budget and capital requests. In addition, the reorganization increased the size of each of the education boards by two members and designated the Secretary of Education as a voting member on the three education boards as well as a voting member of the Board of Trustees of the University. The reorganization also provided the Governor with the authority to appoint the chair of the University Trustees.

Department of Higher Education

The University is subject to the coordinating authority of the DHE, which has the statutory responsibility to develop, foster and advocate for the public higher education system in Massachusetts (which consists of the University, nine state universities, and 15 community colleges), to review and establish tuition at the state universities and the community colleges, to approve changes in academic programs at these institutions, and to collaborate with the public institutions of higher education in order to identify and define institutional missions.

The Board of the DHE consists of 13 voting members; one of whom is the Secretary of Education, nine members appointed by the Governor reflecting regional geographic representation and three members chosen to represent public institutions of higher education. Of the members appointed by the Governor, at least one must be a representative of organized labor, one must be a representative of the business community and one must be a full-time undergraduate student at a public institution of higher education. Of the members chosen to represent public institutions of higher education, one must be a member of the Board of Trustees of the University as voted by the University Trustees, one must be a member of a board of trustees of a state university chosen by vote of the chairs of the boards of trustees of each of the state universities, and one must be a member of a board of trustees of a community college chosen by vote of the chairs of the boards of trustees of each of the community colleges. Three of the DHE members appointed by the Governor are appointed for terms coterminous with that of the Governor. The remaining members of the Board of the DHE are appointed to serve five-year terms, except that the undergraduate student members will be appointed annually. The chairperson of the Board of the DHE is selected by the Governor.

Board of Trustees

The present members and officers of the University Trustees, their original appointment dates and the expiration dates of their respective current terms are set forth below. The term expiration date is September 1 of the applicable year; however, University Trustees generally continue to serve until a successor University Trustee is appointed.

Name and Position; Month and Year Initially Appointed	Current Term Expiration Date
Robert Manning, <i>Board of Trustees Chair</i> , Swampscott <i>Appointed August 2015</i> Chairman and Co-CEO, MFS Investment Management	2021
Maria D. Furman, <i>Board of Trustees Vice Chair</i> , Wellesley <i>Appointed November 2009</i> Former Managing Director and Bond Portfolio Manager of Standish Mellon Asset Management (retired)	2019
Edward W. Collins, Jr., <i>Board of Trustees Vice Chair</i> , Springfield <i>Appointed September 2007</i> International Representative, International Brotherhood of Electrical Workers	2017
Pantea Fatemi Ardestani, Mission Viejo, CA <i>Non-voting Student Member, Appointed April 2016</i>	2017

University of Massachusetts, Boston

James R. Buonomo, Shrewsbury <i>Appointed April 2013</i> Consultant, JRB Advising	2018
Mary L. Burns, Lowell <i>Appointed December 2016</i> Managing Partner, MLB Realty Trust, LLC, Chesapeake Outdoor, LLC, Splash Media Group Boston, LLC, and Capital Advertising, LLC	2021
Kevin F. Delaney, Walpole <i>Voting Student Member, Appointed April 2016</i> University of Massachusetts, Dartmouth	2017
Robert Epstein, Brockton <i>Appointed September 2015</i> President & CEO, Horizon Beverage Group	2020
Philip A. Feinberg, Ardsley, NY <i>Non-voting Student Member, Appointed April 2016</i> University of Massachusetts, Medical School	2017
David G. Fubini, Boston <i>Appointed April 2013</i> Senior Lecturer, Harvard Business School	2018
Imari K. Paris Jeffries, M.Ed., M.A., Boston <i>Appointed December 2016</i> Consultant, United South End Settlement Houses	2021
Philip W. Johnston, Marshfield <i>Appointed September 2007</i> President, Philip W. Johnston Associates	2017
Michael O'Brien, Southborough <i>Appointed December 2016</i> Executive Vice President, WinnCompanies	2021
Joshua S. Odam, Brooklyn, NY <i>Non-voting Student Member, Appointed April 2016</i> University of Massachusetts, Amherst	2017
Kerri Osterhaus-Houle, M.D., Hudson <i>Appointed September 2007</i> Partner, Women's Health of Central Massachusetts, PC	2018
R. Norman Peters, J.D., Paxton <i>Appointed September 2009</i> Partner, Peters & Sowyrda	2019
James A. Peyser, MALD, Milton <i>Appointed January 2015</i> Secretary of Education, Executive Office of Education Commonwealth of Massachusetts	<i>Serves ex-officio</i>
Malinda E. Reed, Lowell <i>Voting Student Member, Appointed April 2016</i> University of Massachusetts, Lowell	2017
Elizabeth D. Scheibel, J.D., South Hadley <i>Appointed December 2016</i> Former Massachusetts Northwestern District Attorney	2021

Henry M. Thomas, III, J.D., Springfield <i>Appointed September 2007</i> President, Urban League of Springfield, Inc.	2017
Victor Woolridge, Springfield <i>Appointed November 2009</i> Vice President, Barings	2019
Charles F. Wu, MBA, Newton <i>Appointed December 2016</i> Senior Lecturer, Harvard University Business School Founding Partner, Baynorth Capital, LLC	2021

Administrative Officers

The following is a list of the current administrative officers of the University.

Martin T. Meehan, J.D., age 60

Martin T. Meehan, J.D., began his term as President of the University on July 1, 2015. Mr. Meehan was previously the Chancellor of the Lowell Campus since July 2007. Prior to that, Mr. Meehan represented the Fifth Congressional District of Massachusetts in the U.S. House of Representatives since 1993. He has also served as the First Assistant District Attorney for Middlesex County from 1991 to 1992. Mr. Meehan was also the Director of Public Affairs for the Massachusetts Secretary of the Commonwealth and the Deputy Secretary of State for Securities and Corporations from 1986 to 1990. Mr. Meehan earned his B.S. in Education and Political Science from the University of Massachusetts, Lowell, a Master's degree in Public Administration from Suffolk University and a J.D. degree from Suffolk University Law School. He holds honorary degrees from Suffolk University, Green Mountain College in Vermont and Shenkar College of Engineering & Design in Israel.

James R. Julian, Jr., J.D., Executive Vice President and Chief Operating Officer, age 55

James R. Julian, Jr., J.D., has been the Executive Vice President at the University since January 1996. Prior to joining the University, he served as Chief of Staff and Counsel for the former Massachusetts Senate President, William M. Bulger, from 1991 to 1996. He holds a B.S. degree in Political Science from Suffolk University and a J.D. degree from the New England School of Law.

Marcellette G. Williams, Ph.D., Senior Vice President for Academic Affairs, Student Affairs and International Relations, age 75

Marcellette G. Williams, Ph.D., has been the Senior Vice President for Academic and Student Affairs and International Relations since July 2005. Dr. Williams served as interim Chancellor of the Amherst Campus from July 2001 through July 2002. Prior to becoming interim Chancellor, Dr. Williams was Deputy Chancellor and Professor of English and Comparative Literature at the Amherst Campus. Prior to joining the University, Dr. Williams served in a variety of academic and administrative positions at Michigan State University, where she earned her bachelor's, master's and doctoral degrees.

Christine M. Wilda, Senior Vice President for Administration & Finance and Treasurer, age 46

Christine M. Wilda was appointed to the position of Senior Vice President for Administration & Finance and Treasurer in July 2012. Previously, she served as interim Vice President for Administration & Finance, Treasurer and Controller from February 2012 to June 2012 and as the University Controller from 2002 to January 2012. Prior to that, Ms. Wilda was an associate in the University Controller's office since 1992. Ms. Wilda received a B.A. degree in Accounting and an M.B.A. degree from the Isenberg School of Management at UMass Amherst. Ms. Wilda has accepted another position within the University; Lisa Calise was appointed as her successor in February 2017.

Kumble R. Subbaswamy, Ph.D., Chancellor, Amherst Campus, age 65

Kumble R. Subbaswamy, Ph.D., became the Chancellor of the Amherst Campus in July 2012. Dr. Subbaswamy previously served as provost at the University of Kentucky since 2006. He joined the University of Kentucky's physics faculty in 1978 after serving as a post-doctoral fellow at the University of California, Irvine. During his first 18 years at the University of Kentucky, he served as Associate Dean of Arts and Sciences and as chair of the Department of Physics and Astronomy. Dr. Subbaswamy was also Dean of the College of Arts and Sciences at the University of Miami from 1997 to 2000, when he left to become Dean of Arts and Sciences at Indiana University in Bloomington, where he served until 2006. Dr. Subbaswamy holds a B.S. degree in Physics from Bangalore University, an M.S. degree in Physics from Delhi University and a Ph.D. degree in Physics from Indiana University.

J. Keith Motley, Ph.D., Chancellor, Boston Campus, age 60

J. Keith Motley, Ph.D., became the Chancellor of the Boston Campus in July 2007. Previously, Dr. Motley had held the position of Vice President for Business and Public Affairs since 2005. Dr. Motley served as Interim Chancellor of the Boston Campus from August 2004 until June 2005. Prior to becoming Interim Chancellor, Dr. Motley served as the Vice Chancellor for Student Affairs at the Boston Campus. Previously, Dr. Motley held a variety of student-service positions at Northeastern University including Dean of Student Services, Associate Dean/Director of the John D. O'Bryant African-American Institute and Assistant Dean/Director of the Office of Minority Student Affairs. Dr. Motley is a founder of the Roxbury Preparatory Charter School and chair emeritus of the school's board of trustees. He also serves on the board of trustees of Newbury College in Brookline. Dr. Motley holds B.S. and M.Ed. degrees from Northeastern University and a Ph.D. degree from Boston College.

Peyton Randolph Helm, Ph.D., Interim Chancellor, Dartmouth Campus, age 67

Peyton Randolph (Randy) Helm, Ph.D., was appointed interim Chancellor of the Dartmouth Campus, effective March 15, 2016. Previously, Dr. Helm was the President at Muhlenberg College for 12 years and was named President Emeritus by the Muhlenberg trustees at commencement in May 2015. At Muhlenberg, Dr. Helm served as a professor of history and taught courses in Homeric Epic and Greek history. Prior to his Muhlenberg presidency, Dr. Helm served as Vice President for College Relations and professor of classical studies at Colby College in Waterville, Maine, and held leadership positions in student affairs and development at the University of Pennsylvania. Dr. Helm earned a B.A. degree in Archaeology from Yale University and a Ph.D. in Ancient History from the University of Pennsylvania.

Jacqueline Moloney, Ed. D., Chancellor, Lowell Campus, age 63

Jacqueline Moloney, Ed.D, was appointed Chancellor of the Lowell Campus in August 2015. Previously, Dr. Moloney served as Executive Vice Chancellor of the Lowell campus since 2007. Prior to becoming Executive Vice Chancellor, Dr. Moloney served as Dean of the Division of Online and Continuing Education at UMass Lowell since 1994 and Executive in Residence for UMassOnline since 2000. Dr. Moloney also served as Dean of University College and Director of the Centers for Learning at UMass Lowell from 1990 to 1994. Dr. Moloney received a B.S. degree in Sociology from UMass Lowell, an M.A. degree in Social Psychology from Goddard College, and an Ed.D. degree from UMass Lowell.

Michael F. Collins, M.D., Chancellor, Worcester Campus and Senior Vice President for Health Sciences, age 61

Michael F. Collins, M.D., was appointed Chancellor of the Worcester Campus, where he also serves as professor of quantitative health sciences and medicine, on September 26, 2008. Dr. Collins served as interim Chancellor of the Worcester Campus from June 2007 to September 2008. In June 2007, Dr. Collins was appointed Senior Vice President for Health Sciences at the University of Massachusetts. Dr. Collins served as Chancellor of the UMass Boston Campus from 2005 through 2007. Prior to joining the University of Massachusetts, Dr. Collins served as President and Chief Executive Officer of Caritas Christi Health Care from 1994 to 2004 and from 1994 to 2001 he served as President of St. Elizabeth's Medical Center in Brighton, a university academic medical center affiliated with Tufts University School of Medicine. A board certified physician in internal medicine and a Fellow of the American College of Physicians, Dr. Collins has held a number of faculty and academic leadership positions over the course of

his career. At Texas Tech University Health Sciences Center, his posts included Assistant Professor of Internal Medicine and Assistant Dean for Patient Care Resources. At Tufts University, he served as Clinical Professor of Internal Medicine and Associate Dean of Government and Medical Affairs in the School of Medicine and as a senior fellow at the Jonathan M. Tisch College of Citizenship and Public Service. Dr. Collins received a B.A. degree from the College of the Holy Cross and earned an M.D. degree from Tufts University School of Medicine.

Faculty and Staff

The University had 6,322 faculty members for Fall 2016, including 4,385 full-time faculty. Of the full-time faculty (excluding Worcester faculty), 52.9% were tenured, 22.5% were on track for tenure and the remaining 24.6% were not on tenure track. In addition, the University had 11,318 staff members for Fall 2016, of which 88.7% were full-time. The University faculty has received some of the world's most prestigious awards and honors, including the MacArthur Fellowship, the Pulitzer Prize, the National Book Award and the Nobel Prize. The University faculty also includes National Science Foundation grant winners and Fulbright Scholars. The University student FTE to faculty FTE ratios, excluding continuing education, are 18:1, 16:1, 16:1 and 18:1 for the Amherst, Boston, Dartmouth and Lowell campuses, respectively. The Worcester Campus ratio is not presented because the delivery of graduate medical education is not comparable to that of campuses offering a traditional range of undergraduate and graduate programs.

STRATEGIC INITIATIVES

Under the leadership of President Meehan and the University Trustees, the University is engaged in a series of strategic initiatives identified as a result of an interactive, collaborative process between the President's Office and campus leadership. The strategic initiatives acknowledge the unique strengths of each of the campuses and recognize the important role of the University in supporting the Commonwealth's economic success. The initiatives are as follows:

- *Accountability* – The University has set benchmarks and peer comparisons for each of the five UMass campuses and specific goals have been set for each Chancellor of the University.
- *Growing the University* – To further economic and academic growth, the University has established satellite centers in Springfield, Haverhill and in the President's new office site in downtown Boston.
- *Expanding Research and Development* – The University participates as a member of the Mass Green High Performance Computing Center providing increased capacity for research and created the UMass Innovation Institute to expand the University's capacity for applied research.
- *Fundraising* – The University is developing and focusing its fundraising efforts across all five campuses.
- *Stewards of Resources* – The University continues to increase cost efficiency in providing educational services to students.
- *Efficient and Effective* – The University has been charged by the University Trustees to find ways to achieve the same or better results through more efficient and effective means.
- *Excellence* – The University continues to enhance its reputation and rankings, providing the Commonwealth with a high-quality public education. UMass was ranked by the *Times Higher Education World University Rankings* as the No. 1 public university in New England and one of the 30 best public universities in the nation.
- *Quality* – The University continues to admit high-quality students and strives to increase the academic profiles of all five campuses. Despite increasing enrollment, student quality continues to improve. The Fall 2016 incoming class is among the strongest in University history, with average SAT scores of 1225 and 1171, and average high school GPAs of 3.83 and 3.59 at the Amherst and Lowell Campuses, respectively. In addition, UMass faculty includes Nobel Laureate and Pulitzer Prize winners, members of the National

Academy of Sciences, an American Book Award winner and Fulbright, Guggenheim, MacArthur and Mellon fellows.

- *Student Success* – The University continues to review policies and other best practices that focus on ways to improve student output measures. Since Fall 2011, one-year retention rates have increased from 83.1% to 85.4% while six-year graduation rates have increased from 58.2% to 63.6%.

ACADEMIC PROGRAMS AND ACCREDITATION

The University offers a broad spectrum of academic programs, granting Bachelor of Arts degrees in over 60 fields, Bachelor of Science degrees in over 50 fields and bachelor’s degrees in a number of other areas, including Fine Arts and Business Administration. Master of Arts degrees are granted in more than 25 fields, Master of Science degrees in over 45 academic fields and a variety of other master’s degrees are granted in specialized areas including Education, Teaching, Business Administration and Public Health. In addition to the foregoing, the University grants Doctor of Philosophy degrees in over 50 fields, as well as Doctor of Education, Doctor of Science, Doctor of Engineering, Juris Doctor and Doctor of Medicine degrees. The academic resources of the University are also accessible to part-time students, to local, national and international businesses and to the general community through the continuing education programs.

Each campus of the University is accredited by NEASC, the major accrediting body for institutions of higher education in New England. The Amherst, Boston, Dartmouth, Lowell and Worcester Campuses are accredited through 2018, 2025, 2020, 2023 and 2020, respectively. The Medical School at the Worcester Campus is a member of the Association of American Medical Colleges and was given full accreditation through the 2019-2020 academic year by the LCME, the major accrediting body for programs leading to the M.D. degree. On December 6, 2016, the Law School at the Dartmouth Campus received full accreditation from the ABA. In addition to the foregoing, individual schools and academic programs are accredited by the appropriate agencies in their particular fields.

The University is also an institutional member of numerous organizations of higher learning and professional societies, including, among others, the Association of American Colleges, the Association of Public and Land-Grant Universities, the American Council on Education, the American Association of Colleges for Teacher Education, the American Association of Colleges of Nursing, the Council of Colleges of Arts and Sciences and the New England Board of Higher Education.

ENROLLMENT

Admission to the University is open to residents and non-residents of the Commonwealth on a competitive basis. Massachusetts residents accounted for 82.3% and 52.4% of the University’s total undergraduate and graduate fall enrollment, respectively, during Fall 2016.

For Fall 2016, total full-time equivalent enrollment at the University (including continuing education) was 63,978, representing an increase of 6.0% over the five-year period.

Total Full-Time Equivalent Enrollment, Fall 2012-2016

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Undergraduate	48,135	48,893	49,732	50,816	51,209
Graduate	<u>12,202</u>	<u>12,443</u>	<u>12,576</u>	<u>12,517</u>	<u>12,769</u>
Total	60,337	61,336	62,308	63,333	63,978

Head Count Enrollment

Total Headcount Enrollment

<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
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In-state undergraduate	44,914	45,064	45,315	45,817	46,784
Out-of-state undergraduate	8,987	9,607	10,084	10,441	10,077
In-state graduate	9,393	9,322	9,220	9,172	9,232
Out-of-state graduate	<u>7,480</u>	<u>7,948</u>	<u>8,177</u>	<u>8,314</u>	<u>8,403</u>
Total	70,774	71,941	72,796	73,744	74,496

The following tables show opening head count enrollment as of the University's Fall semester for each of the five campuses since 2012.

Amherst Campus

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
In-state undergraduate	16,952	16,900	16,949	17,277	17,833
Out-of-state undergraduate	4,976	5,234	5,303	5,471	5,540
In-state graduate	2,270	2,232	2,260	2,282	2,308
Out-of-state graduate	<u>4,038</u>	<u>4,152</u>	<u>4,123</u>	<u>4,239</u>	<u>4,356</u>
Total	28,236	28,518	28,635	29,269	30,037

Boston Campus

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
In-state undergraduate	10,610	10,639	10,734	10,866	10,765
Out-of-state undergraduate	1,514	1,727	1,966	2,083	2,082
In-state graduate	2,623	2,667	2,698	2,638	2,544
Out-of-state graduate	<u>1,127</u>	<u>1,244</u>	<u>1,358</u>	<u>1,443</u>	<u>1,456</u>
Total	15,874	16,277	16,756	17,030	16,847

Dartmouth Campus

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
In-state undergraduate	7,123	6,969	6,939	6,762	6,394
Out-of-state undergraduate	439	468	515	533	605
In-state graduate	1,128	1,019	979	939	957
Out-of-state graduate	<u>520</u>	<u>597</u>	<u>678</u>	<u>682</u>	<u>691</u>
Total	9,210	9,053	9,111	8,916	8,647

Lowell Campus

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
In-state undergraduate	10,229	10,556	10,693	10,912	11,792
Out-of-state undergraduate	2,058	2,178	2,300	2,354	1,850
In-state graduate	2,508	2,551	2,451	2,508	2,614
Out-of-state graduate	<u>1,499</u>	<u>1,647</u>	<u>1,747</u>	<u>1,676</u>	<u>1,601</u>
Total	16,294	16,932	17,191	17,450	17,857

Worcester Campus

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Medical School	519	518	508	515	543
Other	<u>641</u>	<u>643</u>	<u>595</u>	<u>564</u>	<u>565</u>
Total ⁺⁺	1,160	1,161	1,103	1,079	1,108

⁺⁺Does not include the head count of registrants in the various continuing medical education programs offered at the Worcester Campus.

From Fall 2015 to Fall 2016, total new freshmen enrollees decreased by approximately 0.4% for the system as a whole, while total new transfer enrollees decreased by 2.6% for the system as a whole, based on headcount. The number of total new freshmen enrollees reflected a 0.4% decrease in the size of the entering class at the Amherst Campus, a 1.7% decrease in new freshmen at the Boston Campus, a 4.5% decrease at the Dartmouth Campus, and a 4.8% increase at the Lowell Campus. The number of total new transfer enrollees reflected a 10.2% increase at the Amherst Campus, a 9.9% decrease at the Boston Campus, a 6.9% decrease at the Dartmouth Campus, and a 5.0% decrease at the Lowell Campus.

The University saw an increase of approximately 3.6% in freshmen applications in Fall 2016 compared to Fall 2015. The increase in total freshmen applications included a 1.7% increase at the Amherst Campus, a 5.6% increase at the Boston Campus, an 8.2% increase at the Dartmouth Campus and a 5.5% increase at the Lowell Campus. Transfer applications included a 3.3% increase at the Amherst Campus, a 7.3% decrease at the Boston Campus, a 6.9% increase at the Dartmouth Campus and a 2.6% increase at the Lowell Campus.

The following tables provide aggregate data for the campuses (except the Worcester Campus) on University applications, acceptances and matriculations for first year undergraduates and for transfer students.

First Year Applicants, Acceptances and Matriculants, Fall 2012-2016

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Applications Received	58,313	61,253	62,497	67,602	70,025
Number of Acceptances	37,417	40,294	40,347	41,582	43,604
Percent of Applicants Accepted	64%	66%	65%	62%	62%
Number of Matriculants	8,797	9,105	9,332	9,377	9,343
Percent Matriculated of Those Accepted	24%	23%	23%	23%	21%

Transfer Student Applicants, Acceptances and Matriculants, Fall 2012-2016

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Applications Received	10,981	10,033	10,048	9,961	9,971
Number of Acceptances	7,985	7,909	7,988	7,727	7,818
Percent of Applicants Accepted	73%	79%	79%	78%	78%
Number of Matriculants	4,824	4,835	4,893	4,873	4,746
Percent Matriculated of Those Accepted	60%	61%	61%	63%	61%

The following tables show the most currently available retention and graduation rates for undergraduate freshmen entering the University. The level and changes in retention and graduation rates reflect the diversity of the entering students.

One-Year Retention Rates - Fall Term (%)

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Range of Campus Averages	74-88	76-89	79-90	75-91	73-91

Six-Year Graduation Rates (%)

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Year of Entry	2006	2007	2008	2009	2010
Graduation After 6 Years - Range of Campus Averages ⁺	38-70	44-77	42-76	42-78	45-77

[†]The low-end averages of the University data result from the Boston Campus, which focuses on the needs of non-traditional students.

The following table shows the average Scholastic Aptitude Test (“SAT”) scores for entering University undergraduate freshmen.

SAT Scores for Incoming Freshmen

Academic Year	<u>2011-2012*</u>	<u>2012-2013*</u>	<u>2013-2014*</u>	<u>2014-2015*</u>	<u>2015-2016*</u>
Range of Campus Averages	1056-1197	1052-1208	1029-1218	1029-1218	1022-1225

* Combined Mathematics and Critical Reasoning scores.

Degrees Awarded

The University awards four levels of degrees: associate’s, bachelor’s, master’s and doctoral/professional degrees. Trends in University degrees and certificates awarded for the past five years are shown in the following table.

Trends in Degrees Awarded

Academic Year	<u>2011-2012</u>	<u>2012-2013</u>	<u>2013-2014</u>	<u>2014-2015</u>	<u>2015-2016</u>
Associate’s/Certificate	445	547	472	538	508
Bachelor’s	10,399	10,910	11,544	11,875	12,125
Master’s/CAGS [†]	4,166	4,225	4,385	4,679	4,578
Doctorate/Professional	678	765	773	759	812

[†]CAGS means Certificate of Advanced Graduate Studies.

TUITION AND FEES

The following tables show tuition and mandatory fees for full-time graduate and undergraduate students in effect at the Amherst, Boston, Dartmouth, Lowell and Worcester Campuses for fiscal years 2013 through 2017.

AMHERST CAMPUS
Tuition & Mandatory Fees: FY 2013-2017

	<u>Actual</u> <u>2013¹</u>	<u>Actual</u> <u>2014²</u>	<u>Actual</u> <u>2015³</u>	<u>Actual</u> <u>2016⁴</u>	<u>Actual</u> <u>2017⁵</u>
TUITION					
Undergraduate (MA resident)	\$1,714	\$1,714	\$1,714	\$1,714	\$14,590
Undergraduate (non-resident)	9,937	9,937	9,937	9,937	31,823
Graduate (MA resident)	2,640	2,640	2,640	2,640	13,524
Graduate (non-resident)	9,937	9,937	9,937	9,937	29,644
OTHER MANDATORY FEES					
Undergraduate (MA resident)	\$11,516	\$11,544	\$11,544	\$12,457	\$ 381
Undergraduate (non-resident)	16,708	18,037	18,876	20,567	381
Graduate (MA resident)	10,338	11,002	11,411	12,144	2,089
Graduate (non-resident)	16,200	17,778	18,609	20,037	2,089
TOTAL TUITION & MANDATORY FEES					
Undergraduate (MA resident)	\$13,230	\$13,258	\$13,258	\$14,171	\$14,971
Undergraduate (non-resident)	26,645	27,974	28,813	30,504	32,204
Graduate (MA resident)	12,978	13,642	14,051	14,754	15,613
Graduate (non-resident)	26,137	27,715	28,546	29,974	31,733
DORMITORY RESIDENTS ONLY					
Average Room & Board	\$9,937	\$10,439	\$10,957	\$11,503	\$11,897
TUITION, MANDATORY FEES, ROOM & BOARD					
Undergraduate (MA resident)	\$23,167	\$23,697	\$24,215	\$25,674	\$26,868
Undergraduate (non-resident)	36,582	38,413	39,770	42,007	44,101
Graduate (MA resident)	22,915	24,081	25,008	26,257	27,510
Graduate (non-resident)	36,074	38,154	39,503	41,477	43,630

¹ Includes an increase in fees approved by the University Trustees on June 5, 2012.

² Reflects the tuition and mandatory curriculum fee freeze for resident undergraduates as supported by the first year of the 50/50 Initiative. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

³ Reflects the tuition and mandatory curriculum fee freeze for resident undergraduates as supported by the second year of the 50/50 Initiative. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

⁴ Includes an increase in fees approved by the University Trustees on June 17, 2015.

⁵ Reflects the restructuring of tuition and fees enabled by the tuition retention legislation and includes an increase in tuition approved by the University Trustees on July 14, 2016. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

BOSTON CAMPUS
Tuition & Mandatory Fees: FY 2013- 2017

	<u>Actual</u> <u>2013¹</u>	<u>Actual</u> <u>2014²</u>	<u>Actual</u> <u>2015³</u>	<u>Actual</u> <u>2016⁴</u>	<u>Actual</u> <u>2017⁵</u>
TUITION					
Undergraduate (MA resident)	\$1,714	\$1,714	\$1,714	\$1,714	\$13,110
Undergraduate (non-resident)	9,758	9,758	9,758	9,758	31,698
Graduate (MA resident)	2,590	2,590	2,590	2,590	16,863
Graduate (non-resident)	9,758	9,758	9,758	9,758	32,913
OTHER MANDATORY FEES					
Undergraduate (MA resident)	\$10,252	\$10,252	\$10,252	\$10,968	\$325
Undergraduate (non-resident)	16,390	17,672	18,632	20,162	325
Graduate (MA resident)	10,916	11,578	12,428	13,525	355
Graduate (non-resident)	16,405	17,687	19,334	21,357	355
TOTAL TUITION & MANDATORY FEES					
Undergraduate (MA resident)	\$11,966	\$11,966	\$11,966	\$12,682	\$13,435
Undergraduate (non-resident)	26,148	27,430	28,390	29,920	32,023
Graduate (MA resident)	13,506	14,168	15,018	16,115	17,218
Graduate (non-resident)	26,163	27,445	29,092	31,115	33,268

¹ Includes an increase in fees approved by the University Trustees on June 5, 2012.

² Reflects the tuition and mandatory curriculum fee freeze for resident undergraduates as supported by the first year of the 50/50 Initiative. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

³ Reflects the tuition and mandatory curriculum fee freeze for resident undergraduates as supported by the second year of the 50/50 Initiative. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

⁴ Includes an increase in fees approved by the University Trustees on June 17, 2015.

⁵ Reflects the restructuring of tuition and fees enabled by the tuition retention legislation and includes an increase in tuition approved by the University Trustees on July 14, 2016. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

DARTMOUTH CAMPUS
Tuition & Mandatory Fees: FY 2013-2017

	<u>Actual</u> <u>2013¹</u>	<u>Actual</u> <u>2014²</u>	<u>Actual</u> <u>2015³</u>	<u>Actual</u> <u>2016⁴</u>	<u>Actual</u> <u>2017⁵</u>
TUITION					
Undergraduate (MA resident)	\$1,417	\$1,417	\$1,417	\$1,417	\$12,783
Undergraduate (non-resident)	8,099	8,099	8,099	8,099	27,068
Graduate (MA resident)	2,071	2,071	2,071	2,071	14,994
Graduate (non-resident)	8,099	8,099	8,099	8,099	27,068
Graduate Law School (MA resident)	2,071	2,071	2,071	2,071	25,586
Graduate Law School (non-resident)	8,099	8,099	8,099	8,099	33,738
OTHER MANDATORY FEES					
Undergraduate (MA resident)	\$10,264	\$10,264	\$10,264	\$11,171	\$405
Undergraduate (non-resident)	14,929	16,057	16,520	18,074	405
Graduate (MA resident)	10,917	11,553	11,881	12,092	405
Graduate (non-resident)	14,929	16,057	16,520	26,173	405
Graduate Law School (MA resident)	21,631	21,631	21,631	24,541	405
Graduate Law School (non-resident)	23,295	23,295	23,295	32,293	405
TOTAL TUITION & MANDATORY FEES					
Undergraduate (MA resident)	\$11,681	\$11,681	\$11,681	\$12,588	\$13,188
Undergraduate (non-resident)	23,028	24,156	24,619	26,173	27,473
Graduate (MA resident)	12,988	13,624	13,952	14,973	15,399
Graduate (non-resident)	23,028	24,156	24,619	26,173	27,473
Graduate Law School (MA resident)	23,702	23,702	23,702	24,541	25,991
Graduate Law School (non-resident)	31,394	31,394	31,394	32,293	34,143
DORMITORY RESIDENTS ONLY					
Average Room & Board	\$10,574	\$10,908	\$11,435	\$11,622	\$12,296
TUITION, MANDATORY FEES, ROOM & BOARD					
Undergraduate (MA resident)	\$22,255	\$22,589	\$23,116	\$24,210	\$25,484
Undergraduate (non-resident)	33,602	35,064	36,054	37,795	39,769
Graduate (MA resident)	23,562	24,532	25,387	26,595	27,695
Graduate (non-resident)	33,602	35,064	36,054	37,795	39,769
Graduate Law School (MA resident)	34,276	34,610	35,137	36,163	38,287
Graduate Law School (non-resident)	41,968	42,302	42,829	43,915	46,439

¹ Includes an increase in fees approved by the University Trustees on June 5, 2012.

² Reflects the tuition and mandatory curriculum fee freeze for resident undergraduates as supported by the first year of the 50/50 Initiative. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

³ Reflects the tuition and mandatory curriculum fee freeze for resident undergraduates as supported by the second year of the 50/50 Initiative. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

⁴ Includes an increase in fees approved by the University Trustees on June 17, 2015.

⁵ Reflects the restructuring of tuition and fees enabled by the tuition retention legislation and includes an increase in tuition approved by the University Trustees on July 14, 2016. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

LOWELL CAMPUS
Tuition & Mandatory Fees: FY 2013-2017

	<u>Actual</u> <u>2013¹</u>	<u>Actual</u> <u>2014²</u>	<u>Actual</u> <u>2015³</u>	<u>Actual</u> <u>2016⁴</u>	<u>Actual</u> <u>2017⁵</u>
TUITION					
Undergraduate (MA resident)	\$1,454	\$1,454	\$1,454	\$1,454	\$13,932
Undergraduate (non-resident)	8,567	8,567	8,567	8,567	30,500
Graduate (MA resident) ⁺	1,637	1,637	1,637	1,637	14,304
Graduate (non-resident) ⁺	6,425	6,425	6,425	6,425	25,853
OTHER MANDATORY FEES					
Undergraduate (MA resident)	\$10,393	\$10,643	\$10,993	\$11,973	\$375
Undergraduate (non-resident)	16,329	17,579	18,833	20,558	375
Graduate (MA resident) ⁺⁺	9,592	10,402	11,162	12,162	375
Graduate (non-resident) ⁺⁺	14,349	15,449	16,553	18,053	375
TOTAL TUITION & MANDATORY FEES					
Undergraduate (MA resident)	\$11,847	\$12,097	\$12,447	\$13,427	\$14,307
Undergraduate (non-resident)	24,896	26,146	27,400	29,125	30,875
Graduate (MA resident)	11,229	12,039	12,799	13,799	14,679
Graduate (non-resident)	20,774	21,874	22,978	24,478	26,228
DORMITORY RESIDENTS ONLY					
Average Room & Board	\$10,282	\$10,793	\$11,278	\$11,670	\$12,073
TUITION, MANDATORY FEES, ROOM & BOARD					
Undergraduate (MA resident)	\$22,129	\$22,890	\$23,725	\$25,097	\$26,380
Undergraduate (non-resident)	35,178	36,939	38,678	40,795	42,948
Graduate (MA resident)	21,511	22,832	24,077	25,469	26,752
Graduate (non-resident)	31,056	32,667	34,256	36,148	38,301

¹ Includes an increase in fees approved by the University Trustees on June 5, 2012.

² Reflects the tuition and mandatory curriculum fee freeze for resident undergraduates as supported by the first year of the 50/50 Initiative. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

³ Reflects the tuition and mandatory curriculum fee freeze for resident undergraduates as supported by the second year of the 50/50 Initiative. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

⁴ Includes an increase in fees approved by the University Trustees on June 17, 2015.

⁵ Reflects the restructuring of tuition and fees enabled by the tuition retention legislation and includes an increase in tuition approved by the University Trustees on July 14, 2016. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

⁺ Graduate tuition charges at UMass Lowell are on a 9-credit load basis.

⁺⁺ Graduate fee charges at UMass Lowell are on a 9-credit load basis.

WORCESTER CAMPUS
Tuition & Mandatory Fees: FY 2013-2017

	<u>Actual</u> <u>2013¹</u>	<u>Actual</u> <u>2014²</u>	<u>Actual</u> <u>2015³</u>	<u>Actual</u> <u>2016⁴</u>	<u>Actual</u> <u>2017⁵</u>
TUITION					
Medical School (resident)	\$8,352	\$8,352	\$8,352	\$8,352	\$25,842
Medical School (Class of '19 and beyond)	-	-	-	-	33,600
Medical School (non-resident)	-	-	-	-	59,400
Graduate School of Nursing (MA resident)	2,640	2,640	2,640	2,640	10,450
Graduate School of Biomedical Sciences (MA resident)	2,640	2,640	2,640	2,640	6,424
Graduate School of Nursing (non-resident)	9,856	9,856	9,856	9,856	15,675
Graduate School of Biomedical Sciences (non-resident)	9,856	9,856	9,856	9,856	13,640
OTHER MANDATORY FEES					
Medical School (resident)	\$12,310	\$14,535	\$14,998	\$17,158	\$2,057
Medical School (Class of '19 and beyond)	-	-	-	25,665	2,057
Medical School (non-resident)	-	-	-	58,517	2,057
Graduate School of Nursing	8,107	8,307	8,330	8,354	1,927
Graduate School of Biomedical Sciences	4,079	4,279	4,302	4,326	932
TOTAL TUITION & MANDATORY FEES					
Medical School (resident)	\$20,662	\$22,887	\$23,350	\$25,510	\$27,899
Medical School (Class of '19 and beyond)	-	-	-	34,017	35,657
Medical School (non-resident)	-	-	-	58,517	61,457
Graduate School of Nursing (MA resident)	10,747	10,947	10,970	10,994	12,377
Graduate School of Biomedical Sciences (MA resident)	6,719	6,919	6,942	6,966	7,356
Graduate School of Nursing (non-resident)	17,963	18,163	18,186	18,210	17,602
Graduate School of Biomedical Sciences (non-resident)	13,935	14,135	14,158	14,182	14,572

¹ Includes an increase in fees approved by the University Trustees on June 5, 2012.

² Includes an increase in fees approved by the University Trustees on June 19, 2013.

³ Includes an increase in fees approved by the University Trustees on June 18, 2014.

⁴ Includes an increase in fees approved by the University Trustees on June 17, 2015.

⁵ Reflects the restructuring of tuition and fees enabled by the tuition retention legislation and includes an increase in tuition approved by the University Trustees on July 14, 2016. See "UNIVERSITY REVENUES AND BUDGETING - Appropriated Funds - Annual Appropriations."

Student Financial Aid

Eligible University students receive financial aid packages primarily awarded from the federal government, with varying combinations of grants and scholarships, loans and part-time employment. Grants and scholarships represent financial aid that does not require repayment by the student. The primary federal grants and scholarships awarded to eligible University students were Federal Pell Grants of approximately \$72.8 million and Federal Supplemental Education Opportunity Grants of approximately \$3.1 million for the fiscal year 2016. New loans processed by the University for eligible students under federal student loan programs and federally guaranteed loan programs totaled approximately \$338.8 million for the fiscal year 2016. Eligible University students also received approximately \$5.2 million through the Federal Work-Study Program for fiscal year 2016.

UNIVERSITY REVENUES AND BUDGETING

In general, the University receives revenues from multiple sources: Commonwealth appropriations, student fees and self-supporting activities for which fees are charged to cover the cost of providing the service, and federal and state contracts. In fiscal year 2016, Commonwealth appropriations (net of tuition required to be remitted to the Commonwealth) provided approximately 21% of all operating and non-operating revenues of the University (not including University Related Organizations), retained tuition and fees accounted for approximately 25% of all operating and non-operating revenues and other non-appropriated funds (including grants and contracts, auxiliary enterprises and other operating revenues) provided the remaining 54%.

The University's internal accounting is maintained on a budgetary basis. Additionally, the University prepares annual financial statements in accordance with generally accepted accounting principles on an accrual basis. The financial statements of the University as of June 30, 2015 and June 30, 2016 have been audited by Grant Thornton LLP, independent certified public accountants as stated in their report. The consolidated audited financial statements of the University should be read in their entirety, including the footnotes and the Management Discussion and Analysis attached thereto.

Budget Process

The University's fiscal year, like that of the Commonwealth, is from July 1 through June 30. A key source of University revenues is the annual state appropriation determined in the Commonwealth's annual budget process. This process begins approximately one year in advance of the commencement of each fiscal year. The University prepares its consolidated state budget request and forwards it to the Governor and the House and Senate Committees on Ways and Means. A copy of the University's request is also forwarded to the DHE, which incorporates the University's request in whole or in part into its state budget request for the entire public higher education system. The Governor makes funding recommendations to the state legislature (the "Legislature"). The Legislature in turn appropriates funds through its annual budget and other appropriating acts to the University Trustees, who distribute the funds to the five campuses.

The Commonwealth budget process, however, is only one of several ongoing budgetary and review processes that culminate in the presentation to the University Trustees of the overall annual University operating budget. For purposes of the operating budget, the University's revenues are divided into three separate components: General Operations, Sales and Services and Restricted Funds.

General Operations

Revenues from general operations are derived from a variety of sources and may be expended on activities furthering the general education, research and public service mission of the University, including teaching and related student support services, research, public service, institutional support and general maintenance activities. Funding sources for this category include state appropriations, general student fees, interest income, unrestricted giving and administrative overhead.

Sales and Services (Designated Funds)

Revenues generated from certain sales and/or services are presented in the budget separately from general operations and by law may be used to support only the operations of those services. An example of a designated fund is a trust fund established to receive revenues from a parking garage. By law, these revenues may be used only for expenses relating to parking and transportation. Other examples in this category are: auxiliary enterprises such as dining halls, dormitories and bookstores; student fee-based activities (other than the general student fee), such as continuing education and international programs; and educational activities such as counseling services.

Restricted Funds

In addition to the two foregoing categories of revenue, the University receives revenue from non-campus sources, which, like the designated funds, are limited in their uses. These funds include: state and federal student financial aid funds; state, federal and private grants and contracts; restricted endowment and scholarship funds; and land grant funds for the Amherst Campus.

Appropriated Funds

Tuition Retention

Massachusetts had historically been an anomaly in higher education because of the way it charged students to attend the University. In Massachusetts, mandatory curriculum fees made up the bulk of the cost of attending the University, rather than tuition. Tuition, which had not increased in over two decades, was set by the Massachusetts Board of Higher Education and was generally remitted to the Commonwealth's General Fund as a user fee. In fiscal year 2016, the University remitted approximately \$30.5 million in tuition collected from in-state students. Fees, which had previously accounted for the majority of student charges, were set by the University Trustees and were retained by the University to fund its operations. The fees have fluctuated over the years as the level of state support provided in the state budget has changed. Over time, this led to a high fee, low tuition billing model that was antiquated and confusing.

In July 2015, the Legislature passed and the Governor signed into law provisions in the fiscal year 2016 state budget that would give the University the tools to adopt a new system of billing that conforms to best practices in higher education and is consistent with the rest of the nation. The ability for the University to retain tuition, referred to as "Tuition Retention," is the main provision of the law that allowed the University to rationalize and restructure its tuition and fees in a way that is transparent and consistent with its peer institutions.

The Tuition Retention legislation comprised the following key provisions: the University Trustees were given authority to set tuition rates; the University was required to maintain the value of tuition waivers as tuition discounts; the University would continue to receive fringe support from the Commonwealth for any employee funded with retained tuition; and the University was required to create a simpler student bill with the majority of charges coming in the form of tuition.

With Tuition Retention becoming effective on July 1, 2016, the University assembled a steering committee composed of members from each campus and the President's Office in order to begin work on an implementation plan for system changes and communication to students and families. In addition, and in accordance with Section 195 of the fiscal year 2016 General Appropriation Act, the University established an Advisory Task Force chaired by the President of the University and including members from the University Trustees, the Amherst Chancellor, members of the Governor Baker's Administration, the Office of the Senate President and the Office of the Speaker of the House. The Advisory Task Force conducted its review and reported its findings regarding the calculation relative to the value of all tuition discounts, specific budgetary information to be reported to the Commonwealth, the effect on fringe benefits, the reduction to the University's fiscal year base appropriation, and the process for rationalizing future tuition and fee increases.

Tuition Retention was a major efficiency and an important step toward making the University more accountable and transparent to students, their families, Legislators and other stakeholders by showing student charges in a way that alleviates the confusion that had previously existed between tuition and mandatory fees.

Beginning in fiscal year 2004, the Amherst Campus was authorized to retain tuition for non-resident students. Beginning in fiscal year 2012, all of the University campuses were authorized to retain tuition from non-resident

students. In fiscal years 2012, 2013, 2014, 2015 and 2016, the University retained approximately \$50.8 million, \$74.5 million, \$75.8 million, \$82.0 million, and \$85.1 million of tuition revenue, respectively.

Annual Appropriations

The following tables detail the University's appropriations received from the Commonwealth for fiscal years 2013-2017 and the calculation of total Commonwealth support reported in the financial statements for fiscal years 2012-2016. Table A details the University's base maintenance appropriation as provided for in the annual budget of the Commonwealth for fiscal years 2013 through 2017. An explanation of the legislative appropriation process by fiscal year is described in detail below. Table B details the total Commonwealth support received by the University from all sources for fiscal years 2012 through 2016, and is the basis for the University's financial statements.

TABLE A
Commonwealth Appropriations by Fiscal Year

Years Ended June 30*
(\$ millions)

Commonwealth Appropriations	2013 Budget	2014 Budget	2015 Budget	2016 Budget	2017 Budget[†]
UMass Base Appropriation	\$418.1	\$463.5	\$519.0	\$531.8	\$508.3
Collective Bargaining Costs	25.7	15.3	2.2	10.9	-
9C Budget Reductions	(4.2)	-	(7.8)	-	-
Total UMass Base State Appropriation	\$439.6	\$478.9	\$513.4	\$542.7	\$508.3

*Totals may not add due to rounding.

[†] The 2017 appropriation amount was the result of a reduction related to the Tuition Retention Legislation passed as part of the fiscal year 2016 budget. With the University now able to retain approximately \$30.5 million in tuition, the state appropriation was reduced by a corresponding amount in order to ensure that Tuition Retention is cost neutral to both the University and the Commonwealth.

The Commonwealth pays the fringe benefit cost for those University employees who are paid from Commonwealth appropriations, which includes 39.7% of all University employees. Therefore, such fringe benefit support is added to the "State Appropriations" financial statement line item as presented in the table below. The University pays the Commonwealth for the fringe benefit cost of the employees paid from funding sources other than Commonwealth appropriations which includes 60.3% of University employees. The University includes tuition collected in the line item in its financial statements captioned "Tuition and Fees" under "Combined Statements of Revenue, Expenses and Changes in Net Position" and removes the equal amount from the "State Appropriations" line item through the netting process presented in the following table.

TABLE B

Years Ended June 30
(\$ thousands)

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Gross Commonwealth Appropriations	\$399,469	\$447,837	\$486,656	\$516,794	\$546,953
Plus: Fringe Benefits	154,953	130,005	141,881	159,403	178,032
Less: Tuition Remitted	<u>(37,029)</u>	<u>(35,103)</u>	<u>(34,325)</u>	<u>(31,055)</u>	<u>(30,583)</u>
Net Commonwealth Appropriations	<u>\$517,392</u>	<u>\$519,311</u>	<u>\$570,618</u>	<u>\$621,200</u>	<u>\$669,749</u>

The fiscal year 2012 budget approved by the Legislature and signed by the Governor reduced the University's base state appropriation to \$418.0 million. This reduction was partially offset by legislative approval of the Governor's

bill to allow the University's Boston, Dartmouth, Lowell and Worcester Campuses to retain tuition collected from non-resident students beginning in fiscal year 2012. The amount of non-resident tuition collected by these four campuses totaled \$11.6 million in the initial year. Prior to the legislation, the approximately \$11.6 million of non-resident tuition would have been returned to the Commonwealth. The fiscal year 2012 budget also included \$5.5 million of collective bargaining support and \$6.4 million of line item funding specific to the University.

The Commonwealth's fiscal year 2013 budget included a base state appropriation amount for the University equal to the base state appropriation received in fiscal year 2012. In addition to the base state appropriation, the budget also provided \$25.7 million to cover the fiscal year 2013 cost of the collective bargaining increases for the University's union employees and \$6.6 million of line item funding specific to the University. With state support consistent with the fiscal year 2012 level despite the fact that enrollments had increased at the University by 15% over the prior five years, the University's Board of Trustees approved a 4.9% tuition and fee increase for undergraduate students for the 2012-2013 academic year. In January 2013, the Governor imposed mid-year budget reductions pursuant to his 9C Authority to bring the Commonwealth budget into balance. As part of the reductions, the University received a 1% reduction equaling \$4.2 million. By working with the Legislature, the University was able to utilize revenues to meet the reduction with no impact on the fringe support provided by the Commonwealth. Each campus and the central office absorbed the reduction into operations for fiscal year 2013.

The fiscal year 2014 budget approved in July 2013 included a new funding model pursuant to which the Commonwealth's appropriations are set at an amount expected to cover approximately 50% of the cost to educate Massachusetts undergraduate students at the University (the "50/50 Initiative"). The 50/50 Initiative required an increase in the Commonwealth's base state appropriation of \$39.1 million in each of fiscal year 2014 and 2015. This investment, along with additional fringe support of \$10.8 million provided the University with \$100 million in additional appropriations over fiscal years 2014 and 2015. The Governor and the Legislature embraced the 50/50 Initiative for the fiscal year 2014 budget, and provided the increased funding which allowed the University to freeze undergraduate tuition and mandatory fees for Massachusetts residents for the 2013-2014 academic year. The 50/50 Initiative had an immediate and meaningful impact on thousands of Massachusetts residents as their undergraduate tuition and mandatory curriculum fees did not increase in the 2013-2014 academic year. It is expected to provide such undergraduate students with long-term relief by allowing them to graduate and enter the workforce with less student debt. The total base state appropriation for fiscal year 2014 was \$478.9 million.

The fiscal year 2015 budget approved in July 2014 supported the second year of the 50/50 Initiative by increasing the University's base appropriation to \$519.0 million. With the approval of the Commonwealth's fiscal year 2015 budget and the corresponding increase in appropriations for the University, the University continued the implementation of the 50/50 Initiative. At its June 18, 2014 Board Meeting, the University's Trustees approved the freezing of tuition and mandatory curriculum fees for in-state undergraduate students for the 2014-2015 academic year.

On February 3, 2015, Governor Baker exercised his 9C Authority to address a projected \$765 million shortfall in the Commonwealth's fiscal year 2015 budget, by proposing legislation to make certain budgetary reductions. The final bill, which was signed by the Governor on February 13, 2015, reduced the University's fiscal year 2015 base appropriation of \$519.0 million by approximately \$7.8 million to \$511.2 million. The University absorbed these reductions into its operations for fiscal year 2015. The University requested funding to account for the first year of collective bargaining increases with parameters set by the Commonwealth's administration with a total first year cost of \$13.1 million. Supplemental funding was supported in Chapter 10 of the Acts of 2015 for \$2.2 million of the total need.

The fiscal year 2016 budget approved in July 2015 included a base state appropriation of \$531.8 million, representing an increase of 2.5% over the original fiscal year 2015 amount. The original 2016 base appropriation did not include funding for the fiscal year 2015 or fiscal year 2016 collective bargaining increases and fell short of the University's request of \$578 million. Given the level of state funding, the University did not continue to freeze tuition and fees for fiscal year 2016. On June 17, 2015, the University Board of Trustees approved a 5% tuition and mandatory fee increase for in-state undergraduate students. Supplemental funding for collective bargaining was subsequently supported in Chapter 70 of the Acts of 2016 for \$10.9 million, satisfying the remaining need for the first year cost of the collective bargaining increases.

The fiscal year 2017 budget approved in July 2016 included a base state appropriation of \$508.3 million, representing an increase of 1.5% over the original fiscal year 2016 appropriation, and a decrease of 1% from the 2016 appropriation including supplemental funds. The 2017 appropriation amount was also the result of a reduction related to the Tuition Retention Legislation passed as part of the fiscal year 2016 budget. With the University now being able to retain approximately \$31 million in tuition, the state appropriation was reduced by a corresponding amount in order to ensure that Tuition Retention is cost neutral to both the University and the Commonwealth. With flat state appropriations and no additional funds for the second or third years of collective bargaining increases, the University Board of Trustees approved an average increase to tuition and mandatory fees of 5.6% for in-state undergraduates at a special meeting on July 14, 2016.

The University has submitted its budget request to the Administration for fiscal year 2018. UMass is requesting a base appropriation of \$538.6 million, which assumes enrollment growth of 1.6% and reflects an increase of \$30 million or 5.9%. This amount is based on the University's need to address increases in mandatory and other fixed costs related to the core educational and general portion of its budget. Furthermore, with the majority of the University's collective bargaining agreements set to expire on June 30, 2017, the University is estimating that the first year cost of the new agreements for fiscal year 2018 will total \$29.8 million. In addition to the base appropriation, the University is requesting funding for the Commonwealth's \$16.6 million share of the first year collective bargaining cost. The total request of \$555.3 million would allow the campuses to meet their obligations while limiting tuition increases for Fall 2017.

The fiscal year 2018 state budget process is currently underway. On January 25, 2017, the Governor released his budget recommendations, which included \$513.4 million in base appropriations for the University. This amount represents a 1.0% increase over the fiscal year 2017 appropriation amount. The proposal did not include a specific reserve for collective bargaining at this time because bargaining parameters are not currently available. The House and Senate continue to develop their recommendations, which are expected in April and May, respectively.

Management of Non-Appropriated Funds

All non-appropriated funds are managed and grouped for budgetary purposes into several trust funds. Non-appropriated funds are funds derived by the University from revenue sources other than Commonwealth appropriations and include, for example, student fees, gifts, grants, contracts and sponsored programs. The University Trustees establish and collect certain student fees and charges, including charges for room and board. Non-appropriated funds are retained by the University. Approximately 79% of the University's operating and non-operating revenues for fiscal year 2016 were non-appropriated.

University trust funds are financial accounts that are established by the University Trustees under authority granted by the Legislature in connection with self-supporting operations, such as student services, parking and certain research and public service activities. Revenues received from these self-supporting activities are expended by law for the respective purposes for which each trust fund was established. The University Trustees exercise oversight and control over these funds through official policy guidelines, annual budget review and approval and periodic internal audits of certain accounts. Beginning with fiscal year 1992, the University Trustees have required that external audits of the accounts and fund groups be performed by certified public accountants on a combined basis.

The University's financial operations consist of two major expense categories: Educational and General and Auxiliary Enterprises. The Educational and General expense budget includes research, academic programs, public service programs, student services programs, academic and institutional support programs, physical plant operations and financial aid. These activities are funded from student tuition and fees, Commonwealth and Federal appropriations, and grants and contracts. Auxiliary Enterprises are a set of self-sufficient services ancillary to the general educational mission of the University. These include such items as dining and residence halls, student health services and parking facilities. The Auxiliary Enterprises budget is a revenue-based trust fund. No assurance can be given that future trust fund revenues will continue to be sufficient to support self-amortizing projects or other Auxiliary Enterprises. The University reviews fees annually with the goal of having the Auxiliary Enterprises budget be self-sufficient.

Responding to Challenging Fiscal Environment

The University continues to benefit from the increased demand for its educational services. The University's growing reputation, combined with difficult economic conditions in the Commonwealth, have resulted in continued growth in student enrollment and the associated revenue growth from student charges, at all of the University's campuses. In addition, the University benefits from having diverse revenue streams. Grant and contract revenues have grown consistently over the years and the University anticipates continued growth in this area. Modest increases in room and board rates also are expected to generate revenues for auxiliary operations. Additionally, the University's online presence continues to expand. For fiscal year 2016, UMassOnline achieved an approximate 7% increase in revenue and an approximate 6% increase in enrollment. Compared with the previous year, revenues increased from approximately \$89.6 million to approximately \$96.0 million. All of these revenue sources contribute to the University's fiscal position.

Understanding that the current fiscal environment poses significant challenges for the University and its students, the responsibility to be a good steward of limited resources is taken seriously. The University, through its Board of Trustees, created a permanent Task Force on Efficiencies and Effectiveness charged with helping to ensure that improving quality through more efficient and effective operations continues to be a priority for the University. The Task Force, along with the President's Office and the campuses, is working to promote a more standardized approach for cross campus collaboration and oversight of the entire effort, track and report progress, and quantify the benefits to the University and its campuses. Over the last few years the University has achieved measureable savings and efficiencies and expects current efforts to yield additional savings going forward.

The University continues to focus on improving its competitive position. To meet increased student demand, boost academic credentials and improve campus infrastructure, the University has acquired several strategic properties. On February 2, 2010, the Commonwealth's first and only public law school was established at UMass Dartmouth. This was made possible by a donation of approximately \$23 million in assets from the SNESL. In February 2010, the Legislature approved making the Tsongas Arena part of UMass Lowell. The acquisition of the facility provides the Lowell Campus with a venue for entertainment, sports and other events. On May 19, 2010, UMass Boston finalized the purchase of the Bayside Site, the former site of the Bayside Exposition Center, which is located less than one mile from the main campus. This acquisition adds 20 acres of waterfront property to the campus and includes 1,500 parking spaces. Additionally, UMass Lowell purchased the former Saint Joseph's Hospital in Lowell on January 25, 2011. The property consists of six buildings totaling 300,000 square feet located within walking distance of University's North, South and East campuses in Lowell. The Lowell Campus has converted the property through a combination of new construction and renovation into an important campus connection point focused on student and administrative services known as University Crossing. The University expects to open the first-ever student dormitories at UMass Boston in September 2018, achieving a long-held goal of providing UMass Boston students with an on-campus residential option. The student housing complex will accommodate UMass Boston freshmen and transfer students and will be built via an innovative public-private partnership. See "CURRENT AND FUTURE CAPITAL PLANS" below.

Basis of Presentation

The financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America as prescribed by the Governmental Accounting Standards Board ("GASB") using the economic resources measurement focus and the accrual basis of accounting. These statements are reported on a combined basis and all intra-University transactions are eliminated. In accordance with GASB Statement No. 20, the University follows all applicable GASB pronouncements. In addition, the University applies all applicable Financial Accounting Standards Board ("FASB") pronouncements issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements. The University has elected not to apply FASB pronouncements issued after November 30, 1989.

Operating revenues consist of tuition and fees, grants and contracts, sales and services of educational activities (including royalties from licensing agreements) and Auxiliary Enterprise revenues. Operating expenses include salaries, wages, fringe benefits, utilities, subcontracts on grants and contracts, supplies and services and depreciation and amortization. All other revenues and expenses of the University are reported as non-operating revenues and expenses including state general appropriations, non-capital gifts, short term investment income,

endowment income used in operations, interest expenses and capital additions and deductions. Capital items represent all other changes in long term plant and endowment net assets. Revenues are recognized when earned and expenses are recognized when incurred with the exception of revenue earned on certain public service activities. Restricted grant revenue is recognized only when all eligibility requirements have been met, that is to the extent grant revenues are expended or in the case of fixed price contracts, when the contract terms are met or completed. Contributions, including unconditional promises to give (pledges) for non-endowment or non-capital purposes, are recognized as revenues in the period received. Promises of additions to non-expendable endowments are not recognized until cash or other assets are received. Conditional promises to give are not recognized until they become unconditional, that is when the conditions on which they depend are substantially met. When an expense or outlay is incurred for which both restricted and unrestricted net assets are available, the University applies restricted net assets first.

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and judgments that affect the reported amounts of assets and liabilities, as well as disclosures of contingencies at the date of the financial statements and the revenues and expenditures recognized during the reporting period. Significant estimates include the accrual for employee compensated absences, the accrual for workers' compensation liability, the allowance for doubtful accounts, valuation of certain investments and depreciation expense. Actual results could differ from those estimates.

The University reports its financial statements as a business-type activity ("BTA") under GASB Statement No. 35, *Basic Financial Statements - and Management's Discussion and Analysis - for Public Colleges and Universities* ("GASB 35"). BTAs are defined as those that are financed in whole or in part by fees charged to external parties for goods or services.

In order to ensure observance of limitations and restrictions placed on the use of available resources, the accounts of the University are maintained internally in accordance with the principles of "fund accounting". This is the procedure by which resources for various purposes are maintained in separate funds in accordance with the activities or objectives specified. GASB 35 requires that external financial statements to be reported on a consolidated basis and establishes standards for external financial reporting by public colleges and universities that resources be classified into the following net asset categories:

- **Invested in capital assets, net of related debt:** 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:** Net assets subject to externally imposed stipulations that they be maintained permanently by the University.
- **Restricted Expendable:** Net assets 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:** Net assets that are not subject to externally imposed stipulations. Substantially all unrestricted net assets are designated to support academic, research, Auxiliary Enterprises or unrestricted funds functioning as endowments or are committed to capital construction projects.

Revenues are reported net of discounts and allowances. As a result, student financial aid expenditures are reported as an allowance against tuition and fees revenue while stipends and other payments made directly to students are recorded as scholarship and fellowship expenditures on the statement of revenues, expenses and other changes to net assets and are included in supplies and services on the statement of cash flows. Discounts and allowances for tuition and fees and Auxiliary Enterprises are calculated using the Alternate Method.

For the year ended June 30, 2015, the University adopted the provisions of GASB Statement No. 68, *Accounting and Financial Reporting for Retirement Benefits – an amendment of GASB Statement No. 27* ("GASB 68"). GASB 68 addresses accounting and financial reporting for pensions that are provided to the employees of state

and local governments through pension plans that are administered through trusts that have certain characteristics and establishes standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources, and expenditures. The implementation of GASB 68 resulted in a cumulative effect adjustment of (\$238,906) to the beginning net position of the 2015 Statement of Revenues, Expenses and Changes in Net Position as of July 1, 2014 for the recording of pensions. The application of GASB 68 was recorded effective in the beginning of fiscal year 2015 because this was the earliest date for which was practical based on available information.

SUMMARY OF OPERATIONS*

University Combined and Condensed Statement of Net Position As of June 30 (\$ thousands)

	2012	2013	2014	2015	2016
ASSETS					
Current Assets	\$ 617,093	\$ 579,824	\$ 592,750	\$ 692,679	\$ 677,927
Noncurrent Assets					
Investment in Plant Net of Accumulated Depreciation	3,098,186	3,705,517	4,064,786	4,333,761	4,615,776
All Other Noncurrent Assets	1,594,140	1,403,449	1,543,391	1,501,421	1,294,028
Total Assets	\$5,309,419	\$5,688,790	\$6,200,927	\$6,527,861	\$6,587,731
LIABILITIES					
Current Liabilities	\$ 880,104	\$ 772,922	\$ 674,330	\$ 856,460	\$ 774,837
Noncurrent Liabilities	2,039,939	2,415,798	2,831,869	3,133,710	3,294,183
Total Liabilities	\$2,920,043	\$3,188,720	\$3,506,199	\$3,990,170	\$4,069,020
NET POSITION					
Invested in Capital Assets Net of Related Debt	\$1,502,171	\$1,682,173	\$1,800,767	\$1,887,941	\$2,013,966
Restricted					
Nonexpendable	17,773	18,058	17,387	18,378	18,384
Expendable	162,341	156,469	174,530	169,591	218,272
Unrestricted	707,091	757,656	825,611	591,438	549,471
Total Net Position	\$2,389,376	\$2,614,356	\$2,818,295	\$2,667,348	\$2,800,093

* Derived from the Annual Audited Financial Report for Fiscal Years 2012-2016. The University's financial statements include prior year comparative information. Certain prior year amounts have been reclassified to conform with the current year presentation. These reclassifications have no effect on total net assets.

University
Combined Statement of Revenues, Expenses and Changes in Net Position
For The Years Ended June 30 (\$ thousands)

REVENUES	2012	2013	2014	2015	2016
<i>Operating Revenues</i>					
Tuition and Fees*	\$ 659,180	\$ 707,495	\$ 740,116	\$765,218	\$826,815
Federal Grants and Contracts	355,792	334,697	322,047	313,754	329,403
State Grants and Contracts	67,927	68,794	74,996	70,871	75,306
Local Grants and Contracts	3,077	2,253	2,223	1,717	2,445
Private Grants and Contracts	109,235	106,714	112,428	124,399	121,198
Sales & Service, Educational	19,311	19,237	21,792	25,601	27,500
Auxiliary Enterprises	297,956	319,544	349,485	362,193	383,281
Other Operating Revenues					
Sales & Service, Independent Operations	61,087	46,062	44,296	48,368	47,613
Sales & Service, Public Service Activities	383,855	447,119	448,478	295,429	476,831
Other	98,107	100,839	93,418	105,234	113,104
<i>Total Operating Revenues</i>	<u>\$2,055,527</u>	<u>\$2,152,754</u>	<u>\$2,209,279</u>	<u>\$2,112,784</u>	<u>\$2,403,496</u>
EXPENSES	2012	2013	2014	2015	2016
<i>Operating Expenses</i>					
Educational and General					
Instruction	\$ 633,481	\$ 657,841	\$ 690,635	\$ 712,430	\$ 794,691
Research	417,124	405,223	407,425	431,586	434,213
Public Service	75,665	74,510	77,985	72,910	71,457
Academic Support	147,767	145,551	151,000	167,582	181,057
Student Services	107,246	108,746	119,295	127,988	141,915
Institutional Support	198,941	209,975	219,920	237,212	248,379
Operation and Maintenance of Plant	215,292	203,115	214,972	217,913	228,406
Depreciation and Amortization	163,166	185,261	204,233	221,043	240,865
Scholarships and Fellowships	47,626	49,731	49,242	49,300	44,645
Auxiliary Enterprises	235,633	248,765	265,080	273,680	297,089
Other Expenditures					
Independent Operations	53,734	47,826	44,861	40,961	47,930
Public Service Activities	293,951	327,293	365,252	227,692	410,106
<i>Total Operating Expenses</i>	<u>\$2,589,626</u>	<u>\$2,663,837</u>	<u>\$2,809,900</u>	<u>\$2,782,297</u>	<u>\$3,140,753</u>
<i>Operating Loss</i>	<u>(\$534,099)</u>	<u>(\$511,083)</u>	<u>(\$600,621)</u>	<u>(\$669,513)</u>	<u>(\$737,257)</u>

* Net of scholarship allowances of \$244,025 at June 30, 2016, \$212,469 at June 30, 2015, \$201,186 at June 30, 2014, \$189,753 at June 30, 2013, and \$177,420 at June 30, 2012.

(continued)
University
Combined Statement of Revenues, Expenses and Changes in Net Position
For The Years Ended June 30 (\$ thousands)

NONOPERATING REVENUES/(EXPENSES)					
Federal Appropriations	\$ 6,845	\$ 6,774	\$ 7,020	\$ 6,619	\$ 6,827
State Appropriations	517,392	519,311	570,618	621,200	669,748
State Appropriations – Federal Stimulus Funds	10				
Gifts	22,143	30,044	29,013	30,351	42,415
Investment Income	27,192	56,037	86,685	29,579	29,381
Unrealized Gain (Loss) on Investments				(11,327)	(7,633)
Endowment Income	15,623	13,614	16,642		
Endowment Income Distributed for Operations				23,362	24,740
Interest on Indebtedness	(64,434)	(91,364)	(89,496)	(100,332)	(105,276)
Non-operating Federal Grants	73,908	70,586	74,279	76,539	75,743
Other Non-operating Income	780	1,002	1,046	2,927	1,540
<i>Net Non-operating Revenues</i>	\$599,459	\$606,004	\$695,807	\$678,918	\$737,485
<i>Income/(Loss) Before Other Revenues, Expenses, Gains and Losses</i>	\$65,360	\$94,921	\$95,186	\$9,405	\$228
Capital Appropriations	\$150,367	\$112,581	\$112,132	\$62,582	\$121,298
Capital Grants and Contracts	43,891	39,347	21,987	55,823	51,259
Endowment Return, net of amount used for operations				(13,086)	(28,958)
University Related Organization Transactions					
Capital Contribution	(345)	1,514	250	0	2,985
Disposal of Plant Facilities	(13,606)	(8,802)	(6,198)	(12,120)	(10,462)
Other Additions/Deductions	2,317	2,939	(19,418)	(15,565)	(3,605)
<i>Total Other Revenues, Expenses, Gains and Losses</i>	\$182,624	\$150,579	\$108,753	\$77,634	\$132,517
<i>Total Increase in Net Position</i>	\$247,984	\$245,500	\$203,939	\$87,039	\$132,745
NET POSITION					
Net Position at Beginning of Year	\$2,141,392	\$2,368,856	\$2,614,356	\$2,818,295	\$2,667,348
Cumulative effect of adoption of GASB 68				(238,906)	
Net Position at Beginning of Year, Adjusted	\$2,141,392	\$2,368,856	\$2,614,356	\$2,579,389	\$2,667,348
<i>Net Position at End of Year</i>	\$2,389,376	\$2,614,356	\$2,818,295	\$2,667,348	\$2,800,093

SUMMARY OF FINANCIAL RESULTS, FISCAL YEARS 2014 THROUGH 2016

The following is a summary of the University's financial results for fiscal years 2014 through 2016.

Fiscal Year 2016

Financial Highlights

The University's net position (not including University related organizations) increased approximately \$132.7 million from \$2.7 billion in fiscal year 2015 to \$2.8 billion in fiscal year 2016.

The University expended approximately \$228.4 million on plant operations and maintenance activities during fiscal year 2016.

Summary of Assets and Liabilities

At June 30, 2016, the University's total assets (not including University Related Organizations) were approximately \$6.6 billion, an increase of approximately \$59.9 million over the approximately \$6.5 billion in assets recorded in fiscal year 2015. The University's largest asset continues to be its net investment in its physical plant of \$4.6 billion at June 30, 2016 (\$4.3 billion in fiscal year 2015). Other significant assets include current and noncurrent investments and cash and securities held by the University Trustees.

University liabilities (not including University Related Organizations) totaled approximately \$4.1 billion at June 30, 2016, an increase of approximately \$78.8 million compared to the approximately \$4.0 billion in liabilities in fiscal year 2015.

The University's current assets of approximately \$677.9 million in fiscal year 2016 were below the current liabilities of approximately \$774.8 million, as the current ratio was 0.87 dollars in assets to every one-dollar in liabilities. In fiscal year 2015, the current ratio was 0.81 (approximately \$692.7 million in current assets and \$856.5 million in current liabilities).

The University's unrestricted and restricted expendable net assets totaled approximately \$797.7 million, which represents approximately 25% of total operating expenditures of approximately \$3.1 billion during fiscal year 2016.

In fiscal year 2016, the University's unrestricted net assets (referred to as Expendable Fund Balance under the Former Financial Reporting Model) totaled approximately \$549.5 million. Substantially all unrestricted net assets are designated to support academic, research, Auxiliary Enterprises or unrestricted funds functioning as endowments, or are committed to capital construction projects.

Summary of Operating Revenues and Operating Expenditures

The University's total operating revenues for fiscal year 2016 were approximately \$2.4 billion. This represents an increase of approximately \$290.7 million over the approximately \$2.1 billion in operating revenues in fiscal year 2015. The most significant sources of revenue for the University are tuition and fees, grants and contracts, auxiliary services and public service activities at the Worcester Medical School campus. Tuition and fees, grants and contracts, auxiliary services and all other operating revenue (which includes the above referenced public service activities) represent 34%, 22%, 16% and 28%, respectively, of total operating revenues.

In fiscal year 2016, University operating expenditures, including depreciation and amortization of approximately \$240.9 million, totaled approximately \$3.1 billion. Of this total, approximately \$1.6 billion or 52% was used to support the academic core activities of the University, including approximately \$434.2 million in research.

State Appropriations

In fiscal year 2016, state appropriations represented approximately 21% 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 appropriation is unrestricted revenue, nearly all of the state appropriation supports payroll and benefits for University employees.

In fiscal year 2016, the net state appropriation increased approximately \$48.6 million over fiscal year 2015 amounts, with the increase attributable to a higher level of state appropriation and related fringe benefit support.

Fiscal Year 2015

Financial Highlights

The University's net position (not including University related organizations) decreased approximately \$150.9 million from \$2.8 billion in fiscal year 2014 to \$2.7 billion in fiscal year 2015. The most significant changes

were the increase in pension liability due to the implementation of GASB 68, Accounting and Reporting for pensions of \$238.8 million and the increase in Bonds Payable of \$258.8 million.

The University expended approximately \$217.9 million on plant operations and maintenance activities during fiscal year 2015.

Summary of Assets and Liabilities

At June 30, 2015, the University's total assets (not including University Related Organizations) were approximately \$6.5 billion, an increase of approximately \$326.9 million over the approximately \$6.2 billion in assets recorded in fiscal year 2014. The University's largest asset continues to be its net investment in its physical plant of \$4.3 billion at June 30, 2015 (\$4.1 billion in fiscal year 2014). Other significant assets include current and noncurrent investments and cash and securities held by the University Trustees.

University liabilities (not including University Related Organizations) totaled approximately \$4.0 billion at June 30, 2015, an increase of approximately \$484.0 million compared to the approximately \$3.5 billion in liabilities in fiscal year 2014.

The University's current assets of approximately \$692.7 million in fiscal year 2015 were below the current liabilities of approximately \$856.5 million, as the current ratio was 0.81 dollars in assets to every one-dollar in liabilities. In fiscal year 2014, the current ratio was 0.88 (approximately \$592.8 million in current assets and \$674.3 million in current liabilities).

The University's unrestricted and restricted expendable net assets totaled approximately \$761.0 million, which represents approximately 27.4% of total operating expenditures of approximately \$2.78 billion during fiscal year 2015.

In fiscal year 2015, the University's unrestricted net assets (referred to as Expendable Fund Balance under the Former Financial Reporting Model) totaled approximately \$591.4 million. Substantially all unrestricted net assets are designated to support academic, research, Auxiliary Enterprises or unrestricted funds functioning as endowments, or are committed to capital construction projects.

Summary of Operating Revenues and Operating Expenditures

The University's total operating revenues for fiscal year 2015 were approximately \$2.1 billion. This represents a decrease of approximately \$96.5 million over the approximately \$2.2 billion in operating revenues in fiscal year 2014. The most significant sources of revenue for the University are tuition and fees, grants and contracts, auxiliary services and public service activities at the Worcester Medical School campus. Tuition and fees, grants and contracts, auxiliary services and all other operating revenue (which includes the above referenced public service activities) represent 36%, 24%, 17% and 22%, respectively, of total operating revenues.

In fiscal year 2015, University operating expenditures, including depreciation and amortization of approximately \$221.0 million, totaled approximately \$2.8 billion. Of this total, approximately \$1.4 billion or 50% was used to support the academic core activities of the University, including approximately \$431.6 million in research.

State Appropriations

In fiscal year 2015, state appropriations represented approximately 22% 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 appropriation is unrestricted revenue, nearly all of the state appropriation supports payroll and benefits for University employees.

In fiscal year 2015, the net state appropriation increased approximately \$50.6 million over fiscal year 2014 amounts, with the increase attributable to a higher level of state appropriation and related fringe benefit support through the state's investment in the University's 50/50 initiative.

Fiscal Year 2014

Financial Highlights

The University's net position (not including University related organizations) increased approximately \$203.9 million from \$2.6 billion in fiscal year 2013 to \$2.8 billion in fiscal year 2014. The major components of the increase are due to physical plan improvements and positive operating results due primarily to greater student fee revenues associated with increased enrollment, cost reductions and strong market performance for the University's investments.

The University expended approximately \$215.0 million on plant operations and maintenance activities during fiscal year 2014.

Summary of Assets and Liabilities

At June 30, 2014, the University's total assets (not including University Related Organizations) were approximately \$6.2 billion, an increase of approximately \$512.1 million over the approximately \$5.7 billion in assets recorded in fiscal year 2013. The University's largest asset continues to be its net investment in its physical plant of \$4.1 billion at June 30, 2014 (\$3.7 billion in fiscal year 2013). Other significant assets include current and noncurrent investments and cash and securities held by the University Trustees.

University liabilities (not including University Related Organizations) totaled approximately \$3.5 billion at June 30, 2014, an increase of approximately \$306.8 million compared to the approximately \$3.2 billion in liabilities in fiscal year 2013.

The University's current assets of approximately \$592.8 million in fiscal year 2014 were below the current liabilities of approximately \$674.3 million, as the current ratio was 0.88 dollars in assets to every one-dollar in liabilities. In fiscal year 2013, the current ratio was 0.75 (approximately \$579.8 million in current assets and \$772.9 million in current liabilities).

The University's unrestricted and restricted expendable net assets totaled approximately \$1.0 billion, which represents approximately 36% of total operating expenditures of approximately \$2.81 billion during fiscal year 2014.

In fiscal year 2014, the University's unrestricted net assets (referred to as Expendable Fund Balance under the Former Financial Reporting Model) totaled approximately \$825.6 million. Substantially all unrestricted net assets are designated to support academic, research, Auxiliary Enterprises or unrestricted funds functioning as endowments, or are committed to capital construction projects.

Summary of Operating Revenues and Operating Expenditures

The University's total operating revenues for fiscal year 2014 were approximately \$2.2 billion. This represents an increase of approximately \$56.5 million over the approximately \$2.2 billion in operating revenues in fiscal year 2013. The most significant sources of revenue for the University are tuition and fees, grants and contracts, auxiliary services and public service activities at the Worcester Medical School campus. Tuition and fees, grants and contracts, auxiliary services and all other operating revenue (which includes the above referenced public service activities) represent 33%, 23%, 16% and 28%, respectively, of total operating revenues.

In fiscal year 2014, University operating expenditures, including depreciation and amortization of approximately \$204.2 million, totaled approximately \$2.8 billion. Of this total, approximately \$1.4 billion or 49% was used to support the academic core activities of the University, including approximately \$407.4 million in research.

State Appropriations

In fiscal year 2014, state appropriations represented approximately 20% 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 appropriation is unrestricted revenue, nearly all of the state appropriation supports payroll and benefits for University employees.

In fiscal year 2014, the net state appropriation increased approximately \$51.3 million over fiscal year 2013 amounts, with the increase attributable to the adoption of the first year of the 50/50 initiative.

Endowment and Fundraising

The combined University and Foundation endowment assets have decreased to approximately \$707.2 million at June 30, 2016 from approximately \$739.6 million at June 30, 2015. The University raised approximately \$117.1 million in cash, pledges, gifts-in-kind and private research grants in fiscal year 2016. The number of endowed chairs has grown from four in 1995 to approximately 93 in 2016, enhancing the University’s academic reputation.

The total investment return for fiscal year 2016, including realized and unrealized activity was a net loss of approximately \$27.9 million. The endowment funds for all five of the University’s campuses are commingled into a pooled investment fund and are tracked by the Foundation using unit value accounting. The Foundation employs a market value unit method of accounting, whereby participating endowment funds enter and withdraw from the pooled investment fund based on monthly unit values. Changes in market value and monthly income are allocated proportionately to each endowment fund participant. The effective spending rate for Foundation endowment funds was 3.4% for fiscal year 2016, which represents approximately 1.0% of the University’s total operating and non-operating revenues.

The following details the University and Foundation endowment assets at June 30:

University and Foundation Endowment Assets (\$ thousands)

<u>2012*</u>	<u>2013*</u>	<u>2014*</u>	<u>2015*</u>	<u>2016*</u>
\$554,538	\$652,033	\$743,710	\$739,606	\$707,246

*The Kennedy Institute quasi-endowment has been removed from the University and Foundation Endowment Assets presented here. The Kennedy Institute invested approximately \$10 million in the Foundation’s pooled Endowment in December 2009 and \$15 million in July 2014. The Kennedy Institute quasi-endowment is recorded by the Foundation on an agency basis.

CURRENT AND FUTURE CAPITAL PLANS

The University Trustees have reviewed and approved a five-year approximately \$2.2 billion capital plan for fiscal years 2017-2021, including projects already in process with prior approval of the University Trustees. The University generally has funded its capital plans through a combination of funds received from University operations, bonds issued by UMBA, bonds issued by MDFA, Commonwealth appropriations and private fund raising.

The University must follow certain procedures for state capital spending as defined by the Commonwealth’s Executive Office for Administration and Finance (“EOAF”). Such spending may be financed through the issuance of Commonwealth general or special obligation bonds or other designated revenue, including transfers from budgeted funds. The Commonwealth’s Division of Capital Asset Management and Maintenance (“DCAMM”) manages a five-year capital-spending plan, which is approved by the Commonwealth’s Secretary of Administration and Finance. The University works closely with DCAMM to ensure that the priorities of the University are included in the five-year capital plan for state funding.

The University Trustees, University administration, and campus leadership have identified capital issues as instrumental to the University’s goal of continuing to improve educational quality at all five campuses by enhancing academic achievement and student experience. Following a period of limited investment in the University’s capital assets in the 1980s and 1990s, the University has invested more than \$3.9 billion in capital projects between fiscal years 2005 and 2016. Given the average age of the University’s campus buildings, a significant need to maintain and upgrade capital assets is expected over the next decade. The University’s administration works closely with each of

the campuses in developing the capital plan to reflect the needs and goals of each of the campuses. To further improve project planning and implementation across the University, the University administration and UMBA have collaborated with campus leadership to design an integrated project assessment and tracking process. Furthermore, within budgetary limitations and programmatic requirements, the University is making a concerted effort to incorporate the principles of energy efficiency and sustainability in all its capital projects.

In August 2008, the Legislature passed the Higher Education Improvement Act, which authorized \$2.2 billion for capital improvement spending over ten years for higher education facilities in the Commonwealth, including more than \$1 billion of funding for University projects exclusively. This authorization was amended by Chapter 237 of the Acts of 2014 which added an additional \$100 million to the bottom line to fund deferred maintenance needs at the University. Of the total \$1.1 billion, \$525 million has been spent through June 2016 and all of the funding has been programmed for specific projects. In 2008, the Legislature also enacted the Life Sciences Industry Investment Act, which authorized \$500 million of capital funding over ten years to fund capital investments and infrastructure improvements throughout the Commonwealth to support the Life Sciences Industry. Of the total, \$276.7 million has been earmarked for the University, \$249 million has been spent to date, and all of the funding has been programmed for specific projects.

The Higher Education Improvement Act and the Life Sciences Industry Investment Act are statutory authorizations necessary to allow the Commonwealth to spend state general obligation bond proceeds on University projects. EOAF and DCAMM are the state agencies that develop the state's capital plan, file bond bills, approve projects that will receive state funding and allocate funds to approved projects. DCAMM is responsible for designing and constructing public facilities and improvements. Accordingly, DCAMM has recognized the importance and scale of the authorized higher education investment program and has reorganized itself in anticipation of increased activity at the Commonwealth's public colleges and the University.

On June 19, 2015, Governor Baker released the FY16-20 Capital Plan. The plan included a number of priority projects for the University that are currently underway and the plan confirmed that future year support will be available for the projects. These projects include the School for Marine Science and Technology/Division of Marine Fisheries expansion at UMass Dartmouth, the Physical Sciences Building and the Integrative Learning Center at UMass Amherst, the Pulichino/Tong Business Building at UMass Lowell, and the Utility Corridor and Roadway Relocation project at UMass Boston. However, there were several other University priority projects that were not included in the Administration's plan for which much preparation has gone into. These projects include repair and renovation of the Lederle Graduate Research Center, Machmer Hall, and the Morrill Science Center at UMass Amherst, repair and renovation at Perry, Olsen, and Coburn Halls at UMass Lowell, and New Academic Buildings at UMass Boston and UMass Dartmouth. On May 19, 2016, Governor Baker released the FY17-21 Capital Plan which continued to provide funding for the University projects that were included in the FY16 plan. However, the University projects that were put on hold in the FY16 plan continue to be on hold in the FY17 plan. The University is trying to determine if the Commonwealth will once again support these projects or if the University will need to find an alternative funding source in order to bring these projects to completion.

The Baker Administration has also launched a multi-phased strategic planning effort with multiple work groups including Economic Development, Workforce Development, and Higher Education. The Higher Education work group, of which President Meehan is a member, will focus first on Capital Planning and develop a work plan with the help of an outside consultant. This group will help inform the Administration's capital budget process by creating a plan that will help in allocating resources wisely and align goals and initiatives across all of higher education to maximize the use of resources and establish coherence. Existing data regarding the current condition of campuses and buildings will provide the basis of information from which the group and outside consultant will work, and President Meehan has indicated that deferred maintenance should be a priority of this planning effort.

Beginning in the late 1990s, the University enhanced its program to address deferred maintenance needs at its campuses. As a result, the University has made investments to repair and renovate facilities at its campuses from a combination of University sources, including bonds issued by UMBA, MDFA and direct Commonwealth support. Addressing deferred maintenance remains a priority within the University's 2017-2021 capital plan. In 2015, the University hired Sightlines to conduct a Building Portfolio Solutions analysis in order to ensure that deferred maintenance was being consistently reported across all campuses and to develop a strategy for addressing deferred

maintenance at the University. This analysis, now complete, will be the basis for recommending projects as part of the University capital planning process outlined in the University Trustee policy.

The projects within the capital plan are also organized by program type in order to demonstrate the manner in which requested projects in the capital plan support the University’s mission:

Basic Infrastructure Projects – projects that will benefit the entire campus and are critical to all operations, including steam-lines, power plants, roadways, general public safety improvements such as fire alarm systems and hazardous waste removal systems and administrative computing.

Research – projects such as new research building construction, renovations and improvements to existing research facilities and large acquisitions of lab equipment.

Student Life – projects such as improvements and renovations to, or the construction of, student centers, dining halls, recreation facilities, dormitories or other facilities that improve the student experience.

Teaching & Learning – projects such as improvements to, or the construction of, classroom facilities, auditoria, studios, library facilities and instructional equipment.

The following chart summarizes the five-year capital plan by these program types:

FY2017 to 2021 Capital Plan Spending by Program Type*	Total Planned Spending	Percentage of Total Planned Spending
Basic Infrastructure	\$527,240,000	24%
Research	749,605,500	34
Student Life & Residential	266,600,000	12
Teaching & Learning	657,040,000	30
Total	\$2,200,485,500	100%

* Source: University of Massachusetts Fiscal Year 2017 to 2021 Five-Year Capital Plan Update dated September 2016.

Set forth below are campus-specific descriptions of the capital plan:

Amherst Campus. The Amherst Campus is the University’s flagship institution and its 2017-2021 capital plan is structured with priorities that support the strategic challenges and campus goals of improving teaching, increasing research, enhancing student life and recruiting and retaining quality students and faculty. The Amherst Campus has completed or is nearing completion of several major new projects that provide new facilities to support its teaching and research mission. Near term priorities include reduction of deferred maintenance projects, new construction projects, renovation and modernization projects, and an on-going strategy of infrastructure improvements with the goal of increasing energy performance and sustainability. Construction of the new Life Science Laboratories, the new Commonwealth Honors Residential College, the new Integrative Learning Center, which will provide new academic space for the Communications/Journalism and Linguistics programs, and the Furcolo Hall/Marks Meadow project, which significantly reduced deferred maintenance at the new home of the College of Education, are complete. Construction of improvements to the McGuirk Alumni Stadium and construction of a new Champions Center for men’s and women’s basketball are also complete. The renovation and revitalization of Old Chapel is nearing completion and will soon be a vibrant hub in the core of campus with spaces for large gatherings, student activities and exhibits. The aggregate amount of planned investments in capital projects for the Amherst Campus in the University’s 2017-2021 capital plan is \$716.2 million.

Boston Campus. The Boston Campus’s 2017-2021 Capital Plan reflects the consistent effort to support the campus’s Strategic Plan both by implementing some of the major projects identified in the 2009 Campus Master Plan and through other capital projects designed to correct deficiencies in the campus facilities infrastructure. The Capital Plan embodies the Boston Campus’s best effort to balance the need to improve academic facilities for current students and faculty and reduce the high density of the campus, continue inroads into the daunting backlog of deferred maintenance needs, and provide a modern utilities infrastructure. The construction of the first new academic buildings since the campus opened in 1974 is complete with construction of the Integrated Sciences Complex and University

Hall. Other ongoing projects include the design for a new utility infrastructure, roadway and surface improvements plan. Stabilization of the campus substructure and related deferred maintenance projects are also underway and are critical to addressing long-standing issues with the quality of construction of the original campus. Eventually, the relocation of the utilities will allow for the demolition of the substructure and the creation of a central quadrangle for students and faculty. The Boston Campus is working with UMBA on a Public-Private Partnership with Capstone Development Partners, LLC, for the development and management of the first residential facility to be located on the campus. The \$115.6M project will include living-learning space, approximately 1,082-beds, and 263,000 gross square feet. The project will also contain a 1st floor commons that includes a Campus-wide dining facility, which will be separately funded by the Boston Campus. The project is expected to be completed for use in the Fall 2018 semester. The aggregate amount of planned investments in capital projects for the Boston Campus in the University's 2017-2021 capital plan is \$889.2 million.

Dartmouth Campus. The Dartmouth Campus's 2017-2021 capital plan presents a realistic approach to the campus's ongoing challenges with restoring the physical assets of a campus that was nearly entirely built five decades ago, it is consistent with its goal to provide students with the same high quality facilities that their peers at other campuses enjoy, and to equip the faculty with the world-class research resources that befit the university's recent ascension to doctoral research status. Current ongoing projects include Research Laboratory Improvements, expansion of the Charlton College of Business, and expansion of the School for Marine Science and Technology. The aggregate amount of planned investments in capital projects for the Dartmouth Campus in the University's 2017-2021 capital plan is \$94.7 million.

Lowell Campus. The Lowell Campus's 2017-2021 capital plan impacts a number and variety of the campus's academic, research, student life, athletic, recreational and outreach programs and partnerships while concurrently addressing deferred maintenance. The capital plan acknowledges that if the Lowell Campus is to achieve its goals and aspirations, it must concurrently reduce its backlog of critical maintenance and its energy consumption while creating additional modern academic and research spaces, increasing residential capacity, renewing existing buildings, developing new recreational opportunities, and adding to its capacity to host a broad range of meetings and events – academic, entertainment and civic. On the North campus, academic building improvements include renovations of existing buildings and construction of the new Pulichino Tong School of Business building. The recently completed University Crossing includes a student bookstore, dining facility, student activities and services, admissions, registrar and financial aid offices and similar services and facilities. The South campus master plan academically reorganizes the existing buildings and provides for new buildings to address programmatic space needs, as well as addressing deferred maintenance. The aggregate amount of planned investments in capital projects for the Lowell Campus in the University's 2017-2021 capital plan is \$326.0 million.

Worcester Campus. The Worcester Campus's 2017-2021 capital plan emphasizes the campus's evolving needs and the commitment to maintaining its operational efficiency now and into the foreseeable future. The projects with the highest priority include infrastructure additions or improvements, research related and support items, projects which support teaching and learning functions, and projects to support student life functions. These important projects directly support current campus needs and specifically address repurposing space in the Medical School and Lazare Research Buildings vacated by moves to the Sherman Center (backfill projects), deferred maintenance, infrastructure investments, and improvement priorities in the Medical School Building and campus energy grid. Given the Worcester Campus's strategic partnership with the Department of Veterans Affairs ("VA") of Central and Western Massachusetts and its strong commitment to serving the veterans in the region, the campus initiated a process to formally respond to the VA's solicitation offer to construct a community based outpatient clinic. Pending the results of the bidding process, the Worcester campus is proposing to construct a 230,000 square foot building on the south end of the campus. The aggregate amount of planned investments in capital projects for the Worcester Campus in the University's 2017-2021 capital plan is \$174.3 million.

INDEBTEDNESS OF THE UNIVERSITY

The University is obligated, under various contractual arrangements, to make payments on indebtedness issued on its behalf, including indebtedness issued by UMBA and MDFA, as described below.

Bonds Issued by UMBA

UMBA was created as a body politic and corporate and a public instrumentality of the Commonwealth for the general purpose of aiding and contributing to the performance of the educational and other purposes of the University by providing dormitories, dining commons and other buildings and structures for the use of the University, its students, staff and their dependents and for lease to certain other entities related to the University, all in accordance with UMBA's enabling legislation.

As of June 30, 2016, UMBA had outstanding bonds of approximately \$2.707 billion for which the University is contractually obligated to provide for the payment of debt service or act as UMBA's agent to collect rates, rents, fees and other charges. As of June 30, 2016, approximately \$2.687 billion principal amount of UMBA's bonds are secured by and payable from, in addition to other moneys, all available funds of the University, including trust funds and other funds administered by the University as gifts, grants or trusts, or as provided in the University enabling act. Further, the University is obligated to UMBA to cause to be available in its Unrestricted Net Assets at all times amounts sufficient to pay such costs.

Interest Rate Swap Agreements

UMBA has entered into three separate interest rate swap agreements (the "Swaps") under which UMBA pays a fixed rate and receives a floating rate. The Swaps hedge four series of outstanding variable rate bonds of UMBA, the Project Revenue Bonds, Senior Series 2008-1 (the "Series 2008-1 Bonds"), Facilities Revenue Bonds, Senior Series 2008-A (the "Series 2008-A Bonds"), Project Revenue Bonds, Senior Series 2011-1 (the "Series 2011-1 Bonds") and Project Revenue Bonds, Senior Series 2011-2 (the "Series 2011-2 Bonds" and collectively with the Series 2011-1 Bonds, the "Series 2011 Bonds"). The Swap for the Series 2008-1 Bonds is with UBS AG, and UMBA pays an amount equal to 3.388% per annum of the notional amount and receives the floating rate based on 70% of one-month LIBOR. The Swap for the Series 2008-A Bonds is with Deutsche Bank AG and UMBA pays an amount equal to 3.378% per annum of the notional amount and receives a floating rate based on 70% of one-month LIBOR. The Swap for the Series 2011 Bonds is with Citibank, N.A. and UMBA pays an amount equal to 3.482% per annum of the notional amount and receives the floating rate based on 60% of one-month LIBOR plus 0.18%.

The Swaps are subject to periodic "mark-to-market" valuations and may have a negative impact on the financial statements of UMBA and the University. In addition, the counterparty to each Swap may be able to terminate its respective Swap upon certain events of default under such Swap, in which case UMBA could be required to make a material termination payment to the counterparty, which payment is a contractual obligation of the University to UMBA. In addition, UMBA and the University may be exposed to basis risk (imperfect correlation between the floating rates paid on the applicable bonds and received under the related swap). With respect to the Swap for the Series 2011 Bonds, UMBA and the University would be required to post collateral in certain market situations if the ratings on the Series 2011 Bonds fell to "A2" or below by Moody's or "A" or below by S&P.

Letters of Credit and Liquidity Facilities

The Series 2008-A Bonds, the Series 2008-1 Bonds and the Series 2011-1 Bonds are variable rate demand obligations subject to put by the holders thereof and are supported by standby bond purchase agreements. The standby bond purchase agreements with Barclays Bank PLC supporting the 2008-A and 2008-1 bonds are set to expire on April 15, 2019 and April 22, 2019. The standby bond purchase agreement with Wells Fargo Bank, N.A. that supports the Series 2011-1 Bonds expires on June 9, 2017.

Commercial Paper

In August 2013, UMBA established its commercial paper program, consisting of its \$125 million Commercial Paper Notes, Series 2013 A (the "Series 2013A Notes"), supported by an irrevocable letter of credit provided by State Street Bank and Trust Company, which expired on August 12, 2016, and its \$75 million Commercial Paper Notes, Series 2013 B (the "Series 2013B Notes") secured by a standby liquidity facility provided by U.S. Bank National Association, which expired on August 12, 2016. The letter of credit was replaced with a standby liquidity facility agreement that expires in August 12, 2019. The standby liquidity facility provided by U.S. Bank National

Association was extended in fiscal year 2016 and now expires on August 12, 2019. UMBA may issue notes under either series on a taxable or tax-exempt basis to further UMBA's and the University's efforts to establish a "just in time" borrowing program to fund the University's capital plan as needed during construction periods. Such notes are secured under the Trust Agreement dated as of November 1, 2000, between UMBA and U.S. Bank National Association, Boston, Massachusetts, as successor trustee, and a contract with the University and are repayable from the proceeds of rollover commercial paper notes, funds advanced under the liquidity facilities, bonds to be issued by UMBA in the future or available funds of the University. UMBA currently has no commercial paper outstanding.

Bonds Issued by the Massachusetts Development Finance Agency

As of June 30, 2016, MDFA has outstanding bonds of approximately \$148.607 million, for which the University is contractually obligated to pay debt service.

Annual Debt Service on UMBA and MDFA Bonds

The table on the following page sets forth the principal and interest due on bonds issued by UMBA and the MDFA on behalf of the University as of June 30, 2016, on a fiscal year basis.

Annual Debt Service on UMBA and MDFA Bonds as of June 30, 2016

Fiscal Year	Outstanding	Outstanding	Total⁽¹⁾⁽²⁾
Ending	UMBA Bonds⁽¹⁾	M DFA Bonds	
June 30			
2017	\$208,780,187	\$14,307,572	\$223,087,760
2018	209,726,494	10,863,386	220,589,880
2019	211,552,926	10,872,295	222,425,221
2020	211,355,438	11,229,386	222,584,824
2021	210,951,675	11,252,064	222,203,739
2022	199,174,294	11,190,115	210,364,409
2023	199,352,148	11,169,485	210,521,633
2024	198,887,838	11,159,096	210,046,934
2025	182,180,648	11,424,179	193,604,827
2026	185,270,987	11,625,789	196,896,776
2027	180,907,863	11,279,316	192,187,178
2028	179,575,971	11,161,731	190,737,702
2029	175,871,454	11,159,194	187,030,648
2030	164,396,304	11,149,931	175,546,235
2031	147,663,252	30,793,281	178,456,533
2032	148,076,349	10,418,800	158,495,149
2033	147,331,261	1,988,600	149,319,861
2034	131,333,794	1,985,200	133,318,994
2035	146,047,408	1,983,900	148,031,308
2036	159,431,445	-	159,431,445
2037	158,494,704	-	158,494,704
2038	150,616,111	-	150,616,111
2039	142,991,750	-	142,991,750
2040	115,760,470	-	115,760,470
2041	114,285,318	-	114,285,318
2042	84,413,908	-	84,413,908
2043	84,415,423	-	84,415,423
2044	81,390,276	-	81,390,276
2045	56,247,741	-	56,247,741
2046	21,884,100	-	21,884,100

(1) Assumes the fixed rate payable under the Swaps with respect to UMBA's outstanding variable rate bonds and excludes the subsidy amount expected to be received in connection with UMBA's outstanding "Build America Bonds" issued under ARRA. See "Bonds Issued by UMBA - Interest Rate Swap Agreements" herein for a description of the Swaps.

(2) Totals may not add due to rounding.

Unrestricted Net Assets*
(Referred to as Expendable Fund Balance Under the Former Financial Reporting Model)

As of June 30, 2016, the outstanding principal amount of UMBA and MDFA debt secured by the University's unrestricted net assets was approximately \$2.9 billion. The chart below details the University's unrestricted net assets (not including University Related Organizations) in fiscal years 2012-2016.

Fiscal Year	2012	2013	2014	2015⁺	2016
Unrestricted Net Assets	\$707,091,000	\$757,655,000	\$825,611,000	\$591,438,000	\$549,471,000

* Derived from the Annual Audited Financial Report for Fiscal Years 2012-2016. The University's financial statements include prior year comparative information. Certain prior year amounts have been reclassified to conform with the current year presentation. These reclassifications have no effect on total net assets.

⁺Adoption of GASB 68 for year ended 6/30/15

Additional Indebtedness

Under the terms of the trust agreements and financing agreements securing the above-referenced indebtedness issued by UMBA, the University may, without limit, issue additional indebtedness or request UMBA or MDFA to issue additional indebtedness on behalf of the University so long as such indebtedness is payable from all funds of the University permitted by law to be applied thereto. With certain exceptions described below, the University may not pledge, or permit to exist any lien on, any of its funds or revenues. The University may request UMBA to issue additional indebtedness on behalf of the University that is not payable from all funds of the University permitted by law to be applied thereto, provided: (i) the additional indebtedness is secured by (a) pledged revenues derived from the project or projects being financed, (b) new or increased student fees whether imposed by the University or UMBA, (c) existing pledged revenues, or (d) any combination of the foregoing; and (ii) the maximum annual debt service on all revenue indebtedness then outstanding, including the proposed additional indebtedness, does not exceed 10% of the amount shown in the then most recent audited financial statements of the University as total available revenues. Indebtedness of the University may not be subject to acceleration.

Capitalized Leases

At June 30, 2016, the University had no capital lease obligations.

INSURANCE

The University, as an agency of the Commonwealth, is self-insured for property loss exposure, subject to appropriation from the Legislature. However, properties owned by UMBA located on a campus of the University, such as the Mullins Center, dining commons and most dormitories, are insured by UMBA. In addition, certain properties owned by other University Related Organizations and leased to the University are insured by the related organization. The University's liability for damages to third parties as a result of negligence by University employees is limited under Chapter 258 of the 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 General Laws.

TECHNOLOGICAL INITIATIVES

The University campuses and the President's Office have undertaken a variety of planning and organizing activities designed to establish project structures, roles and responsibilities and collaborative plans and processes for technology improvements at the University. The University has implemented system-wide human resources/payroll, financial, e-procurement and grants management systems, which it will continue to update. These systems are expected to continue to enhance business functions by further consolidating processing, streamlining operations and increasing utilization through new features and self-service offerings. A major focus in fiscal years 2014-2017 will be application upgrades to leverage contemporary functionality.

In 2015, the University completed the implementation of UMassnet, the next generation wide area network spanning and connecting all UMass campuses across the state. This network is a carrier class optical network spanning over 500 fiber span miles with 10gb/100gb bandwidth. This transformational project is enabling technologies at the University such as Virtual Desktop Infrastructure (VDI), video, lecture capture, unified communications, high performance computing, and campus data center optimization.

The University is a participant in a consortium of academic institutions and government and business leaders that constructed and operates the \$95 million Massachusetts Green High Performance Computing Center (“MGHPCC”) in Holyoke, Massachusetts. The cutting-edge, research-oriented facility relies on hydroelectric power and is intended to encourage economic development in the region and serve as a vehicle for collaboration between key participants while establishing Massachusetts as a global leader in the application and development of next generation computing technologies. In addition to the University, academic partners include the Massachusetts Institute of Technology, Boston University, Harvard University, and Northeastern University, and key business participants include Cisco Systems and EMC Corporation.

The facility was fully commissioned in February 2013 and was awarded LEED Platinum certification. It operates with efficiencies on par with the best commercial data centers. Collaboration amongst university researchers is high as evidenced by the monthly multi-institution collaborative research proposal submissions. Nearly \$20 million dollars for shared infrastructure has already been awarded that supports both industry and university research. The UMass shared high performance computing environment supports the work of over 1,000 researchers across 5 campuses.

The MGHPCC is part of a larger strategy for economic development in the City of Holyoke, MA. The MGHPCC served as an anchor tenant and transformed eight acres in downtown Holyoke. The unique government/public/private partnership to develop the MGHPCC and the Holyoke Innovation District (the first in Massachusetts), coupled with policy and infrastructure improvements, has leveraged over \$100 million dollars in private investment in Holyoke. It has become a destination for business development and a source of pride for the community. Programs such as Holyoke Codes have introduced computers, robotics and programming to thousands of seventh and eighth graders in the region. Community college students that joined the MGHPCC internship program have all been hired by private firms or have gone on to pursue computer science degrees.

In just three years, the MGHPCC and the partnership model used to create it has received national attention. A major focus for the next three years is to plan expansion of existing space to support the growing research activity of the member institutions and the New England region. We continue to make creative use of the resource to deliver results that could not have been delivered otherwise.

Over the past year, UMassOnline has engaged in several technology initiatives that resulted in immediate and long-term positive implications to the University’s internal and external constituents. Beginning in summer 2015, UMassOnline began working towards a partnership with Blackboard’s Managed Hosting services to support the Blackboard Learning Management System. For all of 2015, all UMass courses were hosted locally via UITS (University Information Technology Services) in a shared environment. This meant that all changes, no matter how large or how small, had to be in agreement amongst the campuses. This often resulted in scheduling issues, and falling behind in updates and critical patches. With the move to Blackboard Managed Hosting, all campuses are now separated out into individual systems that allows for each campus to determine their own pace of development, the method for which courses are delivered, the privileges granted, and many other value additions that were not possible on our former self hosted system at UITS. This move will allow for additional growth and capacity at a fraction of the cost that had hindered the campuses from moving ahead previously.

Some of the new features and functions that were included in the move to Blackboard Managed Hosting are the new Blackboard Collaborate Ultra Experience, Blackboard Instant Messenger and Blackboard Mobile. These items were previously purchased as add-ons to the self-hosted LMS, but were now included in the pricing of the Managed Hosting LMS at a significant discount.

UMassOnline has continued to partner with the Donahue Institute to provide Learning Management System services to several programs, including the Massachusetts Department of Housing and Community Development (DHCD) Board Member Training and Civic Initiatives. UMassOnline has also continued its partnership with the

Massachusetts Executive Office of Education and its RETELL program, as well as providing technical support and technology applications for educators across the commonwealth for professional development.

LITIGATION

The University is a defendant in various lawsuits; however, University management is of the opinion that the ultimate outcome of any such litigation will not have any material effect on the financial position or financial results of the University.

EMPLOYEE RELATIONS

The University employs 17,640 full and part-time faculty, professional and clerical and maintenance support staff, of which 10,412 (as of October 1, 2016) are covered by collective bargaining units (not including post-doctoral employees, certain contract employees, graduate employees and undergraduate resident assistants). Of those covered, 3,702 are faculty, 2,884 are professional staff, 3,653 are clerical and maintenance support staff and 173 are police officers. In total, the University currently has approximately 41 collective bargaining units (including two post-doctoral employee units, three graduate employee units and one undergraduate resident assistants unit). The majority of the University's collective bargaining agreements will expire on June 30, 2017. Employees covered by University collective bargaining units cannot strike under Massachusetts law.

In general, University employees are covered by a contributory Massachusetts retirement system set up by Chapter 32 of the General Laws, the State Employees' Retirement System ("SERS" or "State Retirement Plan"). The State Retirement Plan is a defined benefit plan that provides retirement benefits based upon age at retirement, years and months of service and the average of the highest three to five consecutive years of base salary. As an alternative to SERS, eligible employees have the option of participating in the Commonwealth's Optional Retirement Program (the "ORP"). The ORP is a defined contribution plan, administered by the DHE. Eligibility for participation in the ORP was expanded by Chapter 68, Section 44 of the Acts of 2011. Employees can also participate in various optional supplemental retirement programs, such as the University of Massachusetts 403(b) Elective Deferral Savings Plan and the Commonwealth's 457(b) Deferred Compensation Plan. Employees generally are eligible to participate in various fringe benefit plans such as the dependent care assistance program and the health, dental, life and disability insurance plans. The majority of these benefits are sponsored by the Commonwealth. However, the University does sponsor a smaller subset of benefits for employees of the Worcester Campus, including dental and vision plans as well as life and long-term disability plans.

Dated: February 24, 2017