



2014 REPORT ON ANNUAL INDICATORS

University Performance Measurement System

July 2014



THE UNIVERSITY OF MASSACHUSETTS

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HEADLINES FROM THE 2014 ANNUAL INDICATORS

ACADEMIC QUALITY

The Top American Research Universities (TARU - The Center) identifies nine performance indicators as measures of academic quality to evaluate the comparative performance of public and private research universities that generate over \$40 million in federal research annually. Included in this group are ten public research universities with a Carnegie classification of very high research activity (RU/VH) with which the Amherst campus is comparing its progress on these and other indicators. All but two of the peers, the Universities of Connecticut and Delaware, are among the 62 members of the Association of American Universities (AAU). AAU institutions are recognized for their excellence in research and education. Therefore, the benchmark for the Amherst campus is quite high, and its performance is generally lower than its peers. In 2013, the University of Oregon, an AAU institution, replaced the University of Nebraska. Historical data have been adjusted to reflect this change.

Student Academic Quality. The academic profile of entering students has made impressive gains in recent years, evidenced by growth in both high school GPA and SAT scores. The high school GPA of entering students increased from 3.60 in 2009 to 3.73 in 2013. Virtually all (99%) students entered UMA with a high school GPA of 3.0 and above. Average SAT scores improved by 39 points over the five-year period (and continue to rise), but still fall below the median of the peer group at the 75th percentile. However, the campus is making progress in closing the gap. Further, seniors report high satisfaction with their undergraduate experience. Results from the 2011 National Survey of Student Engagement (NSSE) show that 86% of seniors rated their UMass Amherst educational experience positively, and increasing numbers rated it as excellent. Results of the Spring 2014 administration will be available in Fall 2014.

Advanced Training. The campus has demonstrated strength in the education and training of pre- and post-doctoral researchers. Here, too, UMass Amherst is below the peer median for the number of degrees awarded. In recent years, the number of post-doctorates receiving training has declined, some of which can be attributed to the 2012 implementation of the campus's first postdoc union contract.

Research and Creative Activity. Total and federal research dollars in science and engineering (R&D) are key measures of an institution's commitment to, and success in research. The Amherst campus faculty has

been successful in competing for these dollars. Total R&D spending increased by 10%, and per faculty expenditures increased by 1% in the past five years. The recent decreases are primarily reflective of Federal and State budget restrictions as well as the expiration of most American Recovery and Reinvestment Act (ARRA) grants.

The number of academic honors and awards bestowed on its faculty is another indicator of an institution's quality. UMass Amherst's faculty has shown strength in this area, but has been below the peer median on faculty awards for the past four years. The number of National Academy members has remained fairly stable, but below the peer median. Academic Analytics, another source of awards data, defines awards more broadly, shows a steady increase in prestigious awards received by UMA faculty, 337 in FY 2013.

In recent years, the campus invested in tenure-system faculty, and the number of faculty has exceeded 1,000 in the past two years. Nevertheless, it is considerably smaller than top public research universities. Continued growth in the tenure-system faculty will be required for the campus to make significant progress in improving academic quality and research productivity, and to advance in the research university rankings.

ACCESS AND AFFORDABILITY

Providing an affordable and accessible education of high quality is stated in the University's mission. In the 2012-13 academic year, the neediest full-time, in-state students enrolled at UMA (28%) received aid in the form of Pell grants. Eighty-four percent of financial need was met for in-state students who applied for aid. The campus continues to recognize its commitment to students with financial need, and has increased institutional need-based aid accordingly.

STUDENT SUCCESS AND SATISFACTION

Most UMass Amherst students have a positive educational experience. Eighty-nine percent of students return for their sophomore year, 73% graduate within six years from UMA, and 11% graduate from another institution. This is the highest graduation rate since the campus began tracking this statistic. The campus has also evidenced a spike in the four-year graduation rate which has increased from 52% for the Fall 2005 cohort to 66% for the Fall 2009 cohort. The retention and graduation rates have improved in recent years but remain somewhat below the peer median. The campus is implementing and expanding programs that will

enrich the college experience with a goal of increasing retention and graduation rates. Such initiatives include a **Residential First-Year Experience (RFYE)**, designed to help student successfully transition into the academic, social and personal demands of college; **Sophomore Living Learning Communities** centered on specialized academic focus areas, **UMatter at UMass**, an initiative intended to increase students' connection to campus by affirming the values the university set in motion 150 years ago: care, compassion and active engagement. Expanded research and scholarship opportunities are also available for undergraduates. Changes in the design and delivery of the General Education curriculum, including an integrative experience requirement for all upper division students also serve to enhance and enrich the student academic experience. A high priority for the campus is to improve undergraduate retention and graduation rates. The University is partnering with the Education Advisory Board (EAB) a best-practices research and consulting firm. EAB has developed the Student Success Collaborative as a means of contributing to the improvement of institutional understanding and practices regarding student success. As a part of the Collaborative, we have access to the predictive analytics advising platform, best practice research studies and collaborative members that will enhance our ability to understand and improve student advising, retention and degree completion. The project is being piloted in selected programs and will be fully implemented in 2014-15.

The campus has made progress in increasing the diversity of the campus. The Fall 2013 entering class was one of the most diverse groups of students in recent history (23% ALANA); Almost 22% of Fall 2013 enrolled undergraduates were students of color. Many will be the first in their families to complete the baccalaureate. The campus will continue to attract a diverse student body and encourage greater appreciation for diverse populations.

SERVICE TO THE COMMONWEALTH

The Amherst campus has invested in programs to promote the enrollment and graduation of undergraduate and graduate students in the sciences and mathematics. In Fall 2013, one-third of baccalaureate and 30% of graduate students were enrolled in Science, Technology, Engineering and Mathematics (STEM) programs, and over one-quarter of degrees awarded at the

undergraduate and graduate levels were in STEM programs. The STEM Diversity Institute (SDI), established in 2012 at the University of Massachusetts Amherst facilitates the diversification of the science, technology, engineering, and mathematics (STEM) workforce. SDI activities serve undergraduate students, graduate students, postdoctoral fellows, and faculty.

These investments will continue.

FINANCIAL HEALTH

The financial indicators of the Amherst campus demonstrate a commitment to prudent use and investment of state appropriation, student tuition and fees and other income streams. The campus continues to support the academic enterprise by increasing growth in net revenues from graduate students, increasing summer and continuing and professional education revenue, attracting more donor support and increasing out-of-state enrollment. All of these initiatives, along with better retention of students, provide alternative revenue streams allowing the campus to reduce the need for student fee increases. Investment in capital infrastructure, faculty growth and student success initiatives remain cornerstones of the campus strategic plan. The Strategic plan identifies three overarching themes: 1) establish the campus as a "destination of choice" for the best and brightest students; 2) establish the campus as an "investment of choice" with a broad range of stakeholders vital to the campus; 3) mobilize resources to achieve these goals. The campus is currently engaged in implementing specific action plans emanating from these themes. Continued state support for general operations and capital remains critical to achieve these goals and to remain financially healthy.

The campus announced the launch of UMass Rising, a comprehensive fundraising campaign with a goal of \$300 million in 2013. The campaign is designed to enhance excellence and contribute to the long-term sustainability of the campus. Now, in its second year \$251.7 million has been raised (as of June 7, 2014). Gifts to the campaign will provide resources in five key areas supporting 1) talented students, 2) first-class faculty, 3) research and technology initiatives, 4) building and infrastructure, and 5) the Annual Fund.

2014 ANNUAL INDICATORS AT A GLANCE

ACADEMIC QUALITY

• Average HS GPA of Freshmen	3.73
• Average SAT Scores of Freshmen	
<i>Arithmetic Mean</i>	1208
<i>25th – 75th Percentile</i>	1120 – 1290
• Average GPA of Entering Transfer Students	3.32
• Student Satisfaction with Educational Experience	87%
• No. of Doctoral Degrees Awarded	334
• No. of Postdoctoral Appointees	166
• Total R&D Expenditures	\$190.7M
• Federal R&D Expenditures	\$111.4M
• Total R&D/per Tenure-track Faculty	\$163,239
• Patent Applications	32
• License Income	\$1.2M
• New Tenured/Tenure-Track Faculty Hired	59
• Change in Tenured/Tenure-Track Faculty	+17
• Change in Faculty FTE	+26
• Faculty Awards	8
• National Academy Members	8

ACCESS AND AFFORDABILITY

• % In-State Pell Grant Recipients	28%
• % of Need Met for In-State Students Awarded	
Need-Based Aid	84%
• % Undergraduates from Massachusetts	77%
• Online Course Enrollments	19,569
• Annual Growth in Online Course Enrollments	8%

STUDENT SUCCESS AND SATISFACTION

• % Undergraduates who are Students of Color	22%
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• % Undergraduates who are First Generation in College	25%
• % Undergraduates with English as a Second Language	12%
• % Undergraduates who are International	2%
• Number Undergraduates who Participated in a Study Abroad Program	1,105
• Freshman One-Year Retention Rate	89%
• Freshman Six-Year Graduation Rate	73%
• Transfer (Full-time) One-Year Retention Rate	86%
• Transfer (Upper Division) Four-Year Graduation Rate	74%

SERVICE TO THE COMMONWEALTH

• Percent Alumni who remain in MA	54%
• Enrollment in STEM Programs	8,798 (32%)
<i>Undergraduate</i>	7,049 (33%)
<i>Graduate</i>	1,749 (30%)
• Degrees Awarded in STEM Fields	1,853 (26%)
<i>Undergraduate</i>	1,405 (26%)
<i>Graduate</i>	448 (26%)
• MTEL Science and Math Test-Takers	33

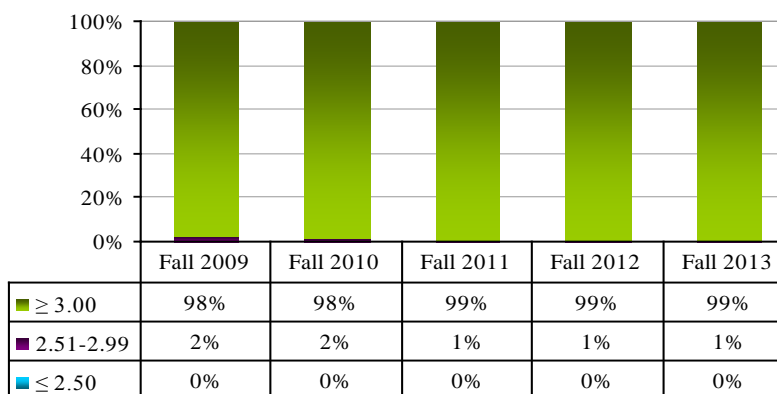
FINANCIAL HEALTH

• Total Endowment	\$272.1M
• Annual Growth in Endowment	18%
• Endowment Per Annualized Student FTE	\$9,951
• Private Funds Raised Annually	\$47.3M
• Return on Net Assets	10.2%
• Financial Cushion	26.7%
• Debt Ratio	6.1%
• Deferred Maintenance per GSF	\$151

ACADEMIC QUALITY

High School GPA of Freshmen

UMass Amherst entering first-year students are strong academically with an average high school GPA of 3.73. The Fall 2013 entering class was at a historical high with 99% of students earning a GPA of 3.0 and above. This was the seventh consecutive year of increases. There were 4,621 students in the Fall 2013 entering class.



	2009	2010	2011	2012	2013
Average	3.60	3.61	3.64	3.66	3.73

Average SAT Scores of Freshmen

First-year students entered UMA with a mean SAT of 1208, posting an increase of 39 points over the five-year period. This is another historical high for the campus. SAT scores have improved by 10 points at the 75th percentile and 60 points at the 25th percentile since Fall 2009. The campus is above the Fall 2012 median of the peer group at the 25th percentile, but still lags the peers at the 75th.

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
75th Percentile	1280	1250	1270	1280	1290
25th Percentile	1060	1080	1100	1110	1120
Peer Median					
75th Percentile	1295	1305	1310	1305	NA
25th Percentile	1065	1075	1085	1075	NA
UMA Rank					
75th Percentile	8	10	8	8	NA
25th Percentile	6	8	5	4	NA

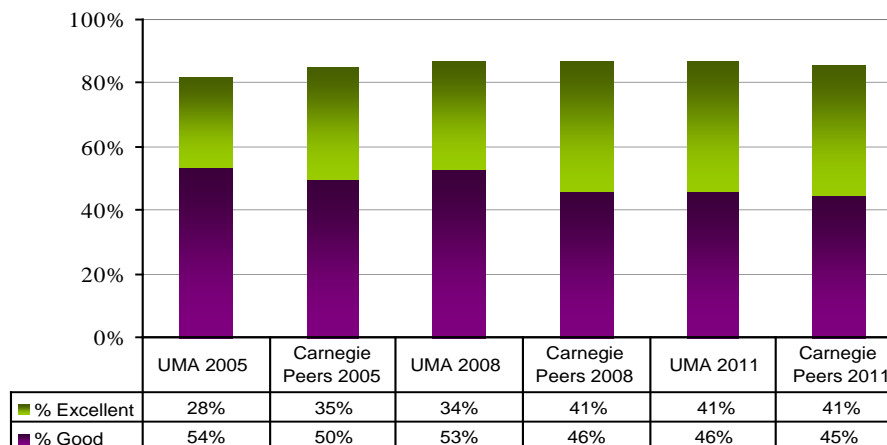
Average GPA of Entering Transfer Students

The transfer grade-point average remains high. It consistently surpasses the mandated Department of Higher Education minimum of 2.00 for transfer students.

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
UMA	3.23	3.25	3.29	3.27	3.32

Student Satisfaction with Educational Experience

Seniors evaluate their UMA educational experience quite positively in the National Survey of Student Engagement (NSSE). In 2011, almost 90% of students rated their experience as good or excellent. These rates are comparable with other Carnegie VH Research Universities. The proportion of students who rated the experience as excellent has shown strong gains since 2005, increasing from 28% in 2005 to 41% in 2011. Results of the Spring 2014 administration will be available in Fall 2014.



Doctoral Degrees Awarded

The number of doctorates awarded at UMA, both research scholarship and professional practice degrees, increased in 2012-13. Professional Practice doctorates have increased since the campus began reporting this award. In contrast, the number of research/scholarship degrees at peer institutions decreased in 2011-12. UMA remains below the peer median on this measure.

<i>UMA Doctoral Degrees Awarded</i>	2008-09	2009-10	2010-11	2011-12	2012-13
<i>Research/Scholarship Doctorates</i>	255	259	258	268	295
<i>Professional Practice Doctorates</i>	-	22	24	37	39
Total Doctoral Degrees Awarded	255	281	282	305	334

<i>Research/Scholarship Doctorates</i>	2008-09	2009-10	2010-11	2011-12	2012-13
<i>UMA</i>	255	259	258	268	295
<i>Peer Median</i>	329	301	359	345	NA
<i>Rank</i>	9	9	9	8	NA

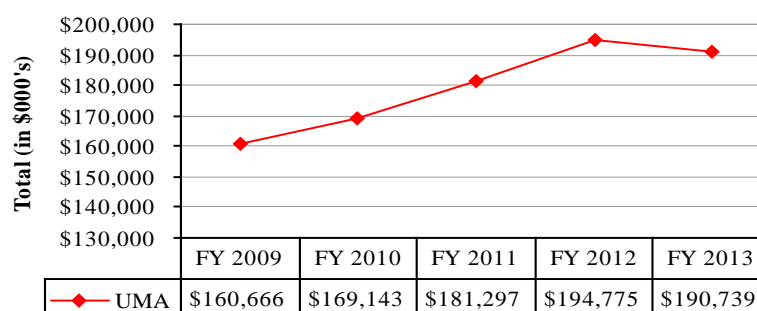
Postdoctoral Appointees

UMass Amherst senior faculty mentor recent PhDs with science and engineering degrees. The number of post-doctoral scholars dropped in the past few years, and is leveling off. This can be explained by the 2012 implementation of the campus' first postdoc union contract. The negotiated stipend increases and benefits resulted in some postdoc layoffs, non-reappointments, and, for some PIs, a decrease in the number of new hires.

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<i>UMA</i>	224	209	215	209	165	166
<i>Peer Median</i>	160	167	196	177	NA	NA
<i>Rank</i>	4	5	6	5	NA	NA

Total Research & Development (R&D) Expenditures

Total R&D spending for the campus in FY 2013 was about \$191 million, of which over \$172 million was in science and engineering (S&E). S&E spending has increased 10% in total dollars and 38% in federal dollars since FY 2009. The rate of growth from FY 2009-11 for the campus exceeded that of peer institutions. S&E expenditures were over three-fourths of the median of the peer group in FY 2011. The recent decrease in expenditures is primarily reflective of Federal and State budget restrictions as well as the expiration of most American Recovery and Reinvestment Act (ARRA) grants.



<i>Total R&D Expenditures (\$000's)</i>	2009	2010	2011	2012	2013
<i>S&E UMA</i>	\$156,216	\$164,854	\$176,545	\$178,207	\$172,217
<i>S&E Peer Median</i>	\$220,020	\$209,899	\$232,565	NA	NA
<i>Rank</i>	8	7	8	NA	NA

<i>Federal R&D Expenditures (\$000's)</i>	2009	2010	2011	2012	2013
<i>UMA</i>	\$80,950	\$97,937	\$107,683	\$115,280	\$111,448
<i>S&E UMA</i>	\$80,163	\$88,860	\$101,940	\$106,470	\$103,233
<i>S&E Peer Median</i>	\$96,483	\$114,136	\$128,714	NA	NA
<i>Rank</i>	9	9	9	NA	NA

Total R&D Expenditures per Tenure System Faculty

The Total R&D Expenditures dollars per faculty increased by 1% between FY 2009 and FY 2013. Federal dollars per faculty increased by 21% during the same period.

<i>Total R&D Per Tenure System Faculty</i>	2009	2010	2011	2012	2013
<i>Total</i>	\$161,149	\$168,805	\$173,253	\$172,681	\$163,239
<i>Federal</i>	\$81,194	\$89,235	\$105,675	\$103,169	\$97,851

Patent Applications

Presently, UMass Amherst files approximately one patent application for every \$6 million in sponsored research spending, which is on par with peer universities.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
<i>UMA</i>	27	28	29	26	32

License Income

License income received in FY 2013 increased from the previous year by about one-fourth (\$250,000). Additionally, the campus received over \$330,000 in sponsored research support from its licensees and optionees. (Note: FY 2010 licensing income included a large one-time payment for a paid-up license.)

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
<i>UMA</i>	\$861,496	\$2,353,519	\$513,500	\$952,738	\$1,200,000

New Tenured/Tenure-Track Faculty Hired

The campus has made significant investments in tenure system faculty hires in recent years. There were 59 such hires in FY 2013. The campus remains committed to supporting the strongest faculty possible and increasing the number of tenure-system faculty.

	AY 2009-10	AY 2010-11	AY 2011-12	AY 2012-13	AY 2013-14
<i>UMA</i>	40	33	57	56	59

Change in Tenured/Tenure-Track Faculty

Fall 2013 saw a small one-year increase in the tenure-system faculty, and an increase of 54 since Fall 2009. This was the second year since 2001 that the number of faculty exceeded 1,000. Investment in faculty is required to maintain the campus as a nationally competitive public research university.

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	1-year Change
<i>UMA</i>	972	978	993	1,009	1,026	17

Change in Faculty FTE

Faculty full-time equivalent (both full and part-time) showed a one-year increase of 26 and has grown by 92 since Fall 2009. About three-fifths of the growth has been accounted for by tenure system faculty.

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013	1-year Change
<i>UMA</i>	1,254	1,264	1,300	1,320	1,346	26

Faculty Awards

UMass Amherst faculty members are recipients of many prominent awards in the arts, humanities, science, engineering and health fields. The number of awards increased slightly in 2012, but the UMA rank remains near the bottom of the peer group. Another source, Academic Analytics, which defines awards more broadly shows that numbers have increased steadily from 272 in FY 2010 to 337 in FY 2013.

	2008	2009	2010	2011	2012
<i>UMA</i>	14	12	8	6	8
<i>Peer Median</i>	11	14	13	11	11
<i>Rank</i>	3	6	8	8	9

National Academy Members

Several UMass faculty members have been elected to some of the most prestigious disciplinary organizations: the National Academy of Science, the National Academy of Engineering, or the Institute of Medicine. These are some of the highest honors academic faculty can receive. This number declined by one in 2012. The campus ranks below its peers on this measure. The absence of a medical school limits the ability of UMA faculty to be elected to the IOM.

	2008	2009	2010	2011	2012
<i>UMA</i>	9	9	9	9	8
<i>Peer Median</i>	10	11	11	11	12
<i>Rank</i>	7	7	7	7	8

ACCESS AND AFFORDABILITY

Percent (In-State) Pell Grant Recipients

The proportion of full-time, in-state students receiving Pell Grants dipped in Fall 2012 to 28%. The campus has significantly increased its need-based institutional grant aid to support students from families with the lowest income. This rate is competitive with other flagship campuses.

	Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012
<i>UMA</i>	23%	28%	31%	31%	28%

Percent Need Met for In-State Students Awarded Need-Based Aid

The campus remains committed to providing need-based aid for in-state undergraduates as it strives to provide a quality and affordable education.

	2008-09	2009-10	2010-11	2011-12	2012-13
<i>UMA</i>	90%	91%	87%	86%	84%

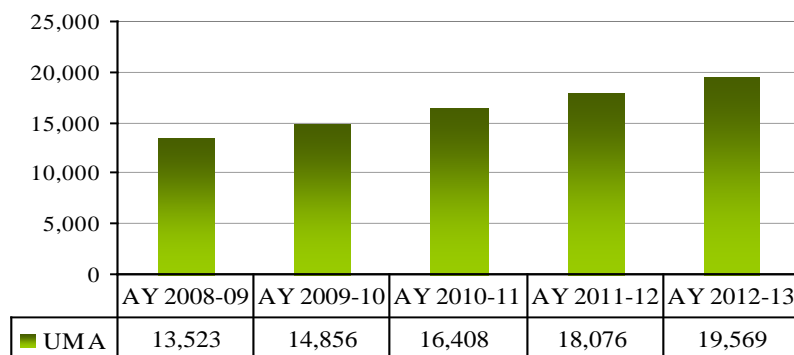
Percent Undergraduates from Massachusetts

The campus is committed to maintaining access to a quality education for residents of the Commonwealth. Over three-fourths of UMass Amherst students enrolled in state-supported programs are residents of the state. The percent has declined in recent years as the campus strives to increase enrollment of out-of-state and international students.

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
<i>Number</i>	15,953	16,046	16,211	16,090	15,999
<i>Percent</i>	81%	80%	79%	78%	77%

Online Course Enrollments

The Amherst campus offers six undergraduate and four graduate degree programs and five certificate programs that can be completed partially or fully online. These programs range from a certificate in Journalism and Criminal Justice Studies to a B.S. in Hospitality and Tourism Management, a Master's of Business Administration and a Doctorate in Nursing Practice. In addition, a variety of other courses are offered. Online course enrollments grew by 8% in the most recent year, and 45% since AY 2008-09.



Annual Growth in Online Course Enrollments

There has been considerable growth in online course enrollment on the Amherst campus in recent years. Enrollments have almost doubled since 2006-07. Online programs afford students flexibility in course-taking.

	AY 2008-09	AY 2009-10	AY 2010-11	AY 2011-12	AY 2012-13
UMA	21%	10%	10%	10%	8%

STUDENT SUCCESS AND SATISFACTION

Percent Undergraduates who are Students of Color

The Amherst campus is committed to enrolling a diverse student body. This is evidenced by the growth in the proportion of undergraduates (including CPE) who are students of color. Undergraduates enrolled in the past two years were the most diverse group of students in recent history.

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
Number	3,607	3,924	3,943	3,960	4,117
Percent	20.1%	20.9%	20.9%	21.0%	21.9%

Percent Undergraduates who are First Generation in College

Although most entering students have parents who are college-educated, many UMass Amherst students will be the first in their families to earn the baccalaureate. About one-fourth of entering first-year students are first generation according to information reported on the Common Application.

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
Percent	27%	27%	29%	27%	25%

Percent Undergraduates with English as a Second Language

English is not the first language of about 12% of first-year students entering UMass Amherst. This is another indicator of the diversity of the campus.

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
Percent	9%	9%	10%	10%	12%

Percent Undergraduate Students who are International

The Amherst campus attracts a small number of undergraduate international students, some of whom are studying on the campus as part of an international exchange program. The numbers have increased two-fold since Fall 2009 as the campus has increased its recruitment of international students. In contrast, almost one-fourth (1,536) of graduate students are international.

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
Number	262	304	378	421	537
Percent	1%	1%	2%	2%	2%

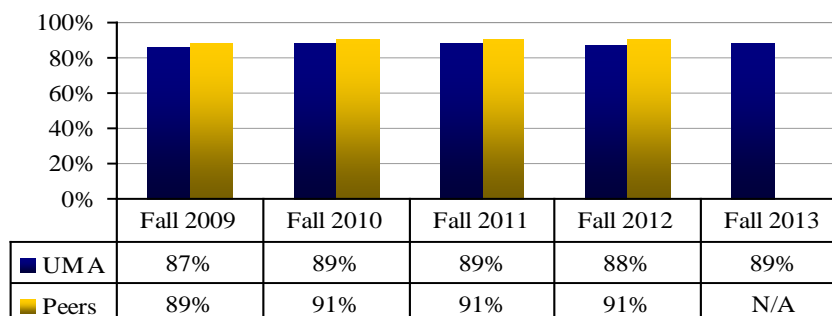
Number Undergraduates who Participated in a Study Abroad Program

About 1,100 UMass undergraduates participated in a study abroad experience during the 2012-13 academic year. The campus encourages students to take advantage of these enriching global learning opportunities.

	Fall 2008- Summer 09	Fall 2009- Summer 10	Fall 2010- Summer 11	Fall 2011- Summer 12	Fall 2012- Summer 13
UMA	1,031	1,002	1,117	1,044	1,105

Freshman One-Year Retention Rate

The one-year retention rate has been consistently high, but the relative position of UMass with respect to its peers in Fall 2012 did not change. New strategies are being developed and implemented to improve the first-year experience and hence student retention. There were 4,592 entering full-time students in Fall 2012.

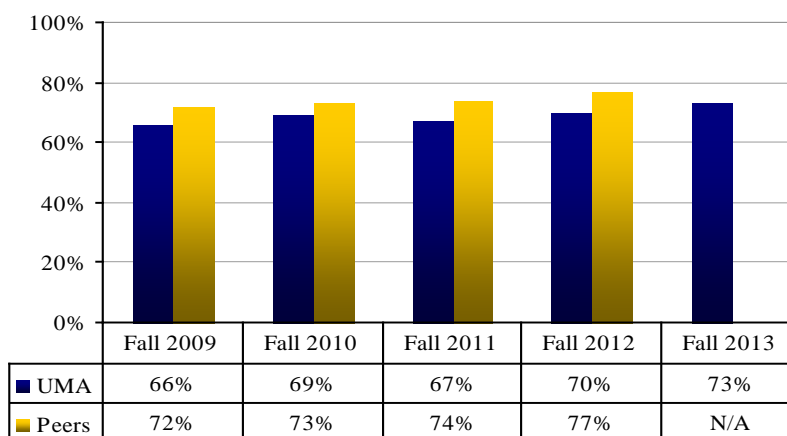


	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
UMA Rank	8	7	7	7	N/A

Freshman Six-Year Graduation Rate

Seventy-three percent of full-time Amherst campus students graduate within six years of entrance, and another 10% receive their degree from another institution. This is the second consecutive year in which the rate has exceeded 70% since the campus began tracking graduation rates beginning with the Fall 1984 entering cohort (64%). The 2013 rate remains below the peer median; but improvements in the four-year graduation rates (66% for the 2009 cohort) suggest that the 6-year rates will continue to improve. Numbers reflect rates for the Fall 2003-Fall 2007 entering cohorts.

The campus is implementing a Student Success Collaborative in partnership with the Educational Advisory Board. This is a predictive analytics advising platform that will enhance our ability to understand and improve student advising, retention and degree completion.



	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
UMA Rank	11	8	9	8	N/A

Transfers (Full-Time) One-Year Retention Rate

The one-year retention rate for transfers has remained steady at 86%. This includes a small number of students who graduate in one year. Transfer students represent approximately one-fifth of the entering fall class.

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
UMA	85%	86%	86%	86%	86%

Transfers (Upper Division) Four-Year Graduation Rate

Almost three quarters of upper division transfers who enroll complete the baccalaureate degree within four years of entry. Many have already earned an Associate's degree. This surpasses the freshman six-year graduation rate. Upper Division transfers represent less than half of total transfer students. The rate has remained fairly stable over time. Numbers are reported for the Fall 2004-2008 cohorts.

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
UMA	74%	73%	74%	74%	74%

SERVICE TO THE COMMONWEALTH

Percent Alumni Who Live in Massachusetts

Over half of the 198,000 undergraduate students who earned a degree from UMA, and about two-fifths of the 51,600 recipients of the master's and doctorate degrees reside in Massachusetts. This proportion increased in Fall 2013, but it is too soon to determine if this is an upward trend.

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
Undergraduate	55%	56%	56%	54%	57%
Graduate	41%	41%	41%	39%	41%
All	52%	53%	53%	51%	54%

Enrollment in STEM Programs

There are several initiatives on the Amherst campus to promote the enrollment and graduation of students in science, technology, engineering and mathematics (STEM) fields. Another goal is to increase the enrollment and persistence of underrepresented minorities in STEM. There has been an upward trend in the number and percent of undergraduates in STEM programs. Presently, 33% of undergraduate and 32% of graduate students are enrolled in such programs.

Undergraduate

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
Total	20,287	20,791	21,265	21,448	21,672
STEM	5,282	5,680	6,104	6,624	7,049
Percent STEM	26%	27%	29%	31%	33%

Graduate

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
Total	5,546	5,677	5,770	5,792	5,848
STEM	1,503	1,601	1,677	1,729	1,749
Percent STEM	27%	28%	29%	30%	30%

Total Enrollment

	Fall 2009	Fall 2010	Fall 2011	Fall 2012	Fall 2013
STEM	6,785	7,281	7,781	8,353	8,798
Percent STEM	26%	28%	29%	31%	32%

Degrees and Certificates Awarded in STEM Fields

The upward trend in STEM enrollment has been mirrored in the number of degrees and certificates awarded. Over one fourth of the almost 5,400 undergraduate degree recipients and graduate degree recipients (1,028 including CAGS) are awarded degrees in STEM fields. Increasing numbers of students are pursuing STEM certificates as well.

Undergraduate Degrees

	2008-09	2009-10	2010-11	2011-12	2012-13
<i>Total Degrees</i>	4,573	4,851	5,036	5,203	5,363
<i>STEM</i>	935	1,095	1,145	1,365	1,405
<i>Percent STEM</i>	20%	23%	23%	26%	26%

Graduate Degrees

	2008-09	2009-10	2010-11	2011-12	2012-13
<i>Total Degrees</i>	1,423	1,502	1,643	1,639	1,696
<i>STEM</i>	355	361	380	437	448
<i>Percent STEM</i>	25%	24%	23%	27%	26%

All Degrees

	2008-09	2009-10	2010-11	2011-12	2012-13
<i>STEM</i>	1,290	1,456	1,525	1,802	1,853
<i>Percent STEM</i>	22%	23%	23%	26%	26%

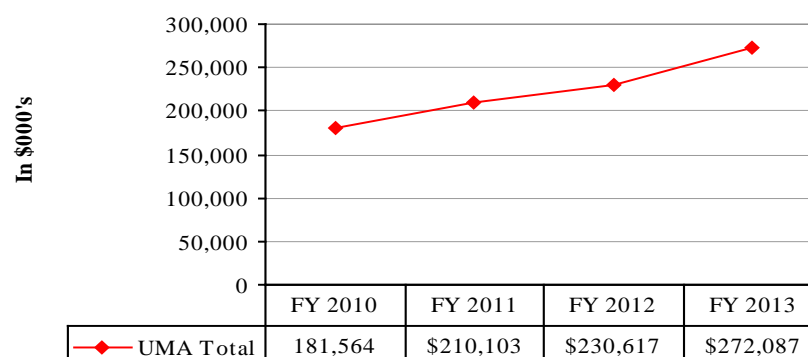
Certificates

	2008-09	2009-10	2010-11	2011-12	2012-13
<i>Total Certificates</i>	230	181	234	311	283
<i>STEM</i>	1	1	12	33	46
<i>Percent STEM</i>	0%	1%	5%	11%	16%

FINANCIAL HEALTH

Endowment Assets and Annual Growth in Endowment

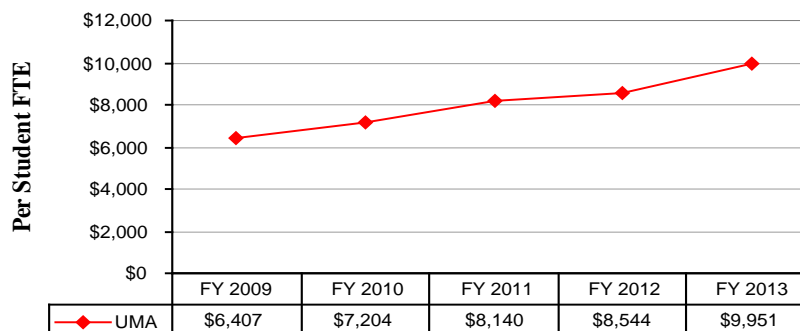
The campus endowment is one of the lowest in the country for a public flagship campus. In FY 2013 the endowment increased due to gifts and better investment performance. The campus is in the midst of a \$300M fundraising campaign and expects to see growth in the endowment from increased gifts.



	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
<i>Annual Change</i>	-4%	12%	16%	10%	18%

Endowment per Annualized Student FTE

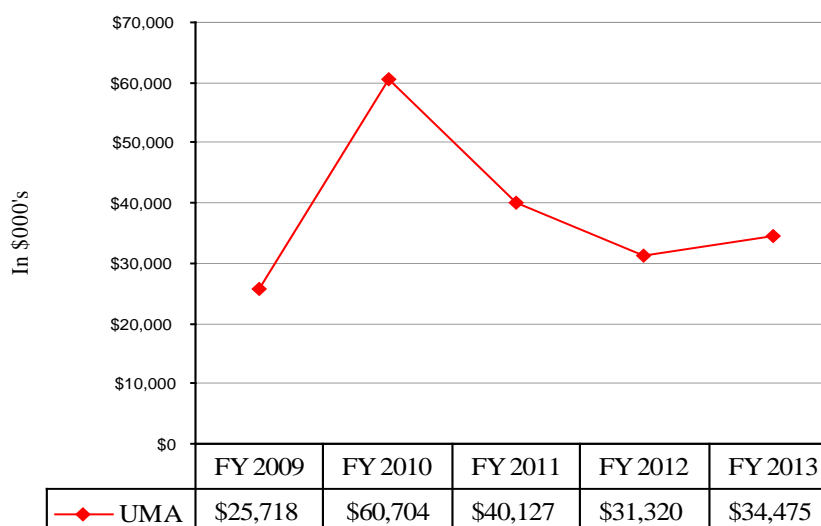
The campus endowment is one of the lowest in the country for a public flagship campus. The campus average per student continues to increase as the market value outpaces student FTE growth.



	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Peers	\$11,137	\$10,840	\$12,309	\$14,226	\$13,548

Private Funds Raised Annually

The impact of the “UMass Rising: Campaign for UMass Amherst” is reflected starting in FY2010 punctuated with 8-figure gift commitments both in FY2010 and FY2011. Annual fluctuations can be expected through the course of the campaign when such large non-repeating gifts are received. Significant estate commitments are being solicited and received during the campaign period and are not reflected in this report.



Return on Net Assets

Return on net assets for the campus is above the peer average. The ratio will remain solid through FY 2014 and beyond as a result of an infusion of state funding for capital projects.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
UMA	3.7%	11.8%	8.3%	11.3%	10.2%
Peers	2.1%	5.5%	6.5%	4.3%	2.9%

Financial Cushion

Financial cushion represents an institution's capacity to sustain itself during difficult financial times. Although lower than its peers, the ratio for the Amherst campus still compares favorably. The financial cushion will decline over the next several years as accumulated unrestricted funds designated for capital improvements are spent on these projects and the net asset converts to Net Investment in Plant.

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
UMA	18.9%	25.9%	24.1%	24.8%	26.7%
Peers	25.3%	27.2%	31.2%	31.2%	29.7%

Debt Service to Operations

The debt service ratio for the campus has grown as the campus continues its investment in infrastructure improvements. This ratio will approach 8% over the next five years as the campus invests in new classroom space and science laboratories.

	<i>FY 2009</i>	<i>FY 2010</i>	<i>FY 2011</i>	<i>FY 2012</i>	<i>FY 2013</i>
<i>UMA</i>	5.9%	5.8%	5.7%	5.5%	6.1%
<i>Peers</i>	6.6%	5.7%	5.8%	6.0%	5.5%

Deferred Maintenance per GSF

This ratio tracks the progress the campus anticipates making in reducing its deferred maintenance backlog over the next few years. It is based on currently identified projects in the capital plan with \$277 million of spending included in the five year projection for infrastructure improvements.

	<i>FY 2009</i>	<i>FY 2010</i>	<i>FY 2011</i>	<i>FY 2012</i>	<i>FY 2013</i>
<i>UMA</i>	\$194	\$149	\$164	\$162	\$151

DEFINITIONS AND SOURCES

ACADEMIC QUALITY INDICATORS

High School GPA of Freshmen. Cumulative GPA for college prep courses with additional weight to honor and AP courses, according to BHE admissions policy, reported on all first-year students.

Average SAT Scores of freshmen. Average SAT Scores of freshmen are based on the Arithmetic Mean. 25th & 75th percentiles are based on combined SAT scores of all first-year students. Peer data are from IPEDS.

Average GPA of Entering Transfer Students. Cumulative GPA for college-level courses transferred to UMA according to admissions policy.

Student Satisfaction with Educational Experience. Percent of seniors who responded “good” or “excellent” to the question, “How would you evaluate your entire educational experience at this institution?” on the National Survey of Student Engagement administered in Spring 2011.

Doctoral Degrees Awarded. Number of Doctorates awarded for the academic year 2013, which includes August 2012, January 2013, and May 2013 award dates. These include both Research/Scholarship and Professional Practice Doctorates. Peer comparison data are based on Research/Scholarship doctorates only.

Postdoctoral Appointees. The number of postdoctoral appointees as reported to NSF.

Total R&D Expenditures. R&D expenditures in all academic fields, from all sources (federal, state, local governments, industry, private and institutional) as reported to NSF. Peer data reported in The Top American Research Universities. Beginning 2010 data are from NSF. Peer comparison data are based on S&E R&D.

Total Research Expenditures per Tenure System Faculty. R&D expenditures in all academic fields from all sources (federal, state, local governments, industry, private and institutional) as reported to NSF, divided by total tenure system faculty as reported to IPEDS. Peer data reported in The Top American Research Universities. Beginning in 2010, data reported by NSF.

Patent Applications. Number of U.S. Patent applications filed per year. Data Source: Data reported by campuses to UMass President’s Office, Office of CVIP.

License Income. Amount of annual income from license agreements. Data Source: Data reported by campuses to UMass President’s Office, Office of CVIP.

New Tenured/Tenure-Track Faculty Hired. The number of new tenured/tenured-track faculty members hired to start their new positions in the academic year.

Change in Tenured/Tenure-Track Faculty. The difference in the number of tenured/tenure-track faculty from one fall semester to the next. Includes faculty members who are on paid leave. Does not include individuals whose primary responsibility is administrative. For the 2014 PMS report, the difference will be between the figure for Fall 2013 and Fall 2012.

Change in Faculty FTE. The difference in the total FTE, from one fall semester to the next, for all full-time and part-time instructional faculty teaching state-supported courses. Includes faculty members who are on paid leave. Does not include individuals whose primary responsibility is administrative. For the 2014 PMS report, the difference will be between the figure for Fall 2013 and Fall 2012. Definition of Faculty FTE is per the Common Data Set, and includes all faculty teaching credit courses, including credit courses offered via Continuing Education.

Faculty Awards. Number of faculty with awards from a list of 24 prominent grant and fellowship programs in the arts, humanities, science, engineering and health fields (e.g., Fulbright American Scholars, Guggenheim Fellows, MacArthur Foundation Fellow, National Endowment for the Humanities Fellows, NSF Career Awards, Sloan Research Fellows). Data reported in The Top American Research Universities and were obtained from directories or web based listings.

National Academy Members. Number of faculty with active or emeritus status who have been elected to membership in the National Academy of Sciences, the National Academy of Engineering, or the Institute of Medicine. Data reported in The Top American Research Universities.

ACCESS AND AFFORDABILITY INDICATORS

Percent (In-State) Pell Grant Recipients. Federal Pell Grants are awarded to low-income undergraduates based on their expected family contribution. Data as reported by campuses to the UMass President’s Office of in-state, full-time students with Pell Grants in the Financial Aid Template.

Percent Need Met for In-State Students Awarded Need-Based Aid. The average percentage of demonstrated financial need that is met by the institution’s award of need-based financial aid to undergraduate students. Data as reported to the UMass President’s Office in the Financial Aid Template.

Percentage Undergraduate from Massachusetts.

Percentage of total undergraduate students who currently reside in Massachusetts based on tuition residency and/or permanent address for continuing education students.

Online Course Registrations. Enrollments or course registrations for the academic year for online credit courses. Academic year includes summer, fall, intersession, and spring. These do not include hybrid courses, but fully online only offered via *UMassOnline*.

Annual Growth in Online Course Registrations.

Percentage rate of growth in enrollments or course registrations for the fiscal year for online credit courses. Fiscal year includes summer, fall, intersession, and spring. These do not include hybrid courses, but fully online only offered via *UMassOnline*.

STUDENT SUCCESS AND SATISFACTION INDICATORS**Percent Undergraduate Students of Color.**

Undergraduates who are African American/Black, American Indian/Alaska Native, Asian, Hawaiian/Pacific Islander, More than One Race, or Hispanic/Latino divided by total U.S. citizens and permanent residents who report race/ethnicity. Due to recent changes in IPEDS race and ethnicity classifications, trend data on students of color should be viewed with caution.

Percent Undergraduates who are First Generation in College.

First-generation college students are defined as those students with neither parent having earned a bachelor's degree. Data are reported on the Fall 2013 Common Application form required of all entering first year students who apply to UMass Amherst.

Percent Undergraduates with English as a Second Language.

Percentage of undergraduates whose first language was not English. Data are from the 2013 Common Application form.

Percent Undergraduate Students who are International.

Percentage of all undergraduates who are studying at the university on a student visa. International students include all eligible visa types as long as they are enrolled for a credit course; i.e., international students do not include U.S. citizens, U.S. permanent residents or refugees.

Number Undergraduates who Participated in a Study Abroad Program.

Data are numbers of students who participated in a credit bearing, study abroad program as reported on the Institute of International Education Open Doors survey for Fall 2012 through Summer 2013.

Freshmen One-Year Retention Rate. Percent of first-time, full-time freshmen who entered in previous fall and were

still enrolled at UMA as of the next fall. Peer data as reported to IPEDS.

Freshmen Six-Year Graduation Rate. Percent of first-time, full-time freshmen who entered in a given fall and had graduated within six years from UMA. Peer data as reported to IPEDS.

Transfer (Full-Time) One-Year Retention Rate. Percent of full-time transfer students at any level who entered in the prior fall and were still enrolled at UMA or graduated as of the next fall.

Transfer (Upper-Division) Four-Year Graduation Rate.

Percent of full-time upper division transfers (60+ credits) who entered in a given fall and had graduated within four years from UMA.

SERVICE TO THE COMMONWEALTH INDICATORS

Percent Alumni Who Live in Massachusetts. Percentage of total alumni who currently reside in Massachusetts based on alumni records.

Enrollment in Science, Technology, Engineering, and Mathematics (STEM) Programs. Unduplicated count of students enrolled in STEM programs. STEM programs are those fields of study defined in the National Science & Mathematics Access to Retain Talent (SMART) Grant with the exclusion of foreign languages. Enrollment count includes undergraduate, graduate and certificate students.

Degrees and Certificates Awarded in STEM Fields.

Number of undergraduate and graduate degrees and certificates awarded in STEM fields. STEM fields are those defined in the National Science & Mathematics Access to Retain Talent (SMART) Grant with the exclusion of foreign languages.

MTEL Science & Math Test-Takers. Total number of students who took the Massachusetts Tests for Educator Licensure (MTEL) subject tests in science and math fields.

FINANCIAL HEALTH INDICATORS**Endowment Assets and Annual Growth in Endowment.**

Annual growth in total UMass Amherst endowment balance.

Endowment per Annualized Student FTE. Total UMass Amherst endowments per annualized FTE student, where FTE of peer institutions is standardized to UMass formula.

Private Funds Raised Annually. Private funds raised includes restricted and unrestricted revenues from individuals, foundations, corporations and other organizations. Includes private grant revenues but not private contract revenues. Totals for each year include pledges made in that year as well as the value of in-kind contributions.

Return on Net Assets. Increase/decrease in net assets divided by total net assets at beginning of the year. Peer data from published financial statements.

Financial Cushion. Unrestricted net assets as a percentage of total operating expenditures. Peer data are from published financial statements.

Debt Service to Operations. Debt service as a percentage of total operating expenditures. Peer data are from published financial statements.

Deferred Maintenance per GSF. Deferred Maintenance per Gross Square Footage includes deferred and other maintenance dollars needed to maintain the current function of the campus, calculated by the “Sightlines” Return on Physical Assets methodology (ROPA sm) and shown per square foot of space.

PEER INSTITUTIONS FOR UMASS AMHERST

Indiana University-Bloomington

*Iowa State University

*Rutgers University System

Stony Brook University

*University of California-Santa Barbara

*University of Colorado-Boulder

*University of Connecticut System

University of Delaware

*University of Maryland-College Park

University of Oregon

***Financial Peer**

Please Note: Unless otherwise specified, all data are from the UMass Amherst Office of Institutional Research.