

UMASS AT A CROSSROADS

PART 1: IS THE UMASS ENROLLMENT EXPANSION PLAN SUSTAINABLE?

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I. EXECUTIVE SUMMARY

This paper is the first in Pioneer Institute's UMass at a Crossroads series. In our opening study, we focus on UMass' significant growth in two areas, academic competitiveness and student enrollment, compared to other New England state universities, MA private universities, national private universities and national public universities.

UMass has expanded enrollment more rapidly than other comparable university systems in the last ten years. From 2005 to 2014, UMass' growth in enrollment (27.3 percent) far outpaced the average of other New England state universities (1.7 percent), MA private four-year universities (11.8 percent), U.S. public universities (14.4 percent), and U.S. private universities (16.4 percent).

As this paper will illustrate, UMass' enrollment expansion has continued against the backdrop of a projected decline in high school graduates in Massachusetts. The Western Interstate Commission for Higher Education (WICHE) forecasts that the number of high school graduates will decline by 11.4 percent from 2015-16 to 2027-28. In spite of these projections, the school has continued to grow its enrollment and expand its capital facilities to historic levels.

Through the past decade of enormous growth in enrollment, the university has significantly elevated its academic profile. This is evidenced by its rise in rankings—in just five years UMass-Amherst, UMass' flagship campus, rose more than 20 in rank in the top 100 of *U.S. News and World Report's* 2014 rankings of national universities. Additionally, 72 percent of admitted freshmen at UMass Amherst were in the top 25 percent of their graduating high school class in 2014, compared to just 44 percent in 2003.

UMass' rising academic rank and its growing national profile have led to increasingly competitive admissions, which has made it considerably more difficult for Massachusetts students to be admitted. One of the most significant contributing factors to this trend has

been the university's admittance of a growing percentage of out-of-state and international students in recent years. For instance, in 2015-16, for the first time in its history, UMass-Amherst made more offers of admission to out-of-state students (11,657) than it did to in-state students (11,651). This represents a dramatic change from the 2005-06 admissions cycle, when 34.6 percent of UMass-Amherst's admission offers went to out-of-state applicants (5,613 offers) and 65.4 percent to in-state students (10,628 offers). While UMass has been accepting significantly higher volumes of out-of-state students relative to in-state enrollees, the school's enormous growth is also reflective of its growing popularity as a higher education option for in-state students. This trend presents serious concern for Massachusetts' small private colleges, many of which have encountered growing financial difficulty in declining enrollment in recent years and, unlike UMass, do not receive support in the form of state subsidies.

Pioneer raises the question of whether the continued expansion of UMass, based largely on increased enrollment of out-of-state students, is in the best interest of the commonwealth. With a comprehensive examination of trends in enrollment, our aim is to illustrate the degree to which UMass' changing priorities in recruitment present a number of a grave concerns for in-state students and Massachusetts residents at-large. UMass is fundamentally changing, and our evaluation of the trends of the last ten years is part of a larger discussion about how the university can best serve the commonwealth while maintaining a sustainable fiscal course.

INTRODUCTION

The University of Massachusetts' five-campus system has experienced a period of unprecedented growth in the past decade—in no area is this more evident than enrollment. Between 2005 and 2014, student enrollment at UMass increased by 27.3 percent, far outpacing other New England state universities, most Massachusetts private universities, and other public and private universities nationally.

This growth in enrollment has been accompanied by a dramatic expansion of its campus facilities, operating expenses, and debt service obligations. As we will explore in another report in our series, UMass undertook a campaign of capital expansion worth \$3.8 billion over the past decade while its deferred maintenance backlog grew from \$2.7 billion to \$3.33 billion. The UMass FY2015-2019 capital plan calls for continued expansion, including building improvements and additions totaling \$6.98 billion, \$3.44 billion of which has received full project approval. This capital growth and future plans for additional development are married to UMass' expanding enrollment, and UMass has established growth benchmarks that are in large part being achieved through the recruitment of non-Massachusetts students. The fiscal demands of UMass' future plans for growth, as reflected in the FY15-19 Capital Plan, suggest UMass will need to aggressively seek revenue from raising tuition and fees in conjunction with additional state funding.

While UMass has expanded to accommodate exceedingly higher volumes of students, the school has become increasingly competitive in academics. UMass' shift in character is evidenced by the rise of its flagship campus, UMass-Amherst, in *U.S. News and World Report's* rankings of public U.S. universities. Just six years ago in 2010, UMass-Amherst ranked 52nd among state universities; by 2016 it had moved up 22 places to 29th, tied with four other institutions.

The school's changing academic profile has had an enormous impact on Massachusetts' in-state

students and high school graduates. As the school has transformed itself into a university of rising academic rank, it has come to rely on revenues from a growing percentage of out-of-state and international students, who pay higher tuition and fees, to sustain the university's growth. This demographic shift in the student population raises important questions surrounding potential mission creep at the university, especially given that the stated goal of UMass officials is to hold in-state enrollment at a relatively constant level and expand out-of-state enrollment over coming years.¹

EXPANSION OF STUDENT ENROLLMENT AT UMASS

Unlike many other higher education institutions in the U.S. over the last decade, UMass has enrolled a significantly higher volume of students each year. According to data published by the National Center for Education Statistics (NCES),² the school expanded total enrollment at its five campuses from 57,178 students in 2005 to 72,784 in 2014, for a total of 15,606 additional students. As mentioned above, this represents a 27.3 percent increase over this period. In comparison, total enrollment at New England's other five state university systems (including all campuses of the University of Maine, University of New Hampshire, University of Vermont, University of Rhode Island, and University of Connecticut) increased by only 1.7 percent over the same timeframe, from 104,640 in 2005 to 106,397 in 2014, for a total addition of 1,757 students. These numbers show that total enrollment growth at UMass from 2005 to 2014 was more than 16 times greater than that of other New England state universities.

UMass' growth in both undergraduate and graduate enrollment far exceeded that of Massachusetts' 84 private four-year non-profit universities as well. As Figure 1³ shows, total student enrollment at those 84 universities rose from 249,681 to 279,220 from 2005 to 2014—an increase of 29,539 students. This represents an 11.17 percent increase compared to UMass' growth of 27.3 percent. UMass'

enrollment growth was also more than twice that of Massachusetts private 4-year non-profit universities, which grew by 11.8 percent over this period.

Compared to other public four-year universities in the United States, UMass' enrollment growth from 2005 to 2014 was nearly twice as large. Other U.S. public four-year universities increased enrollment by 14.4 percent from 7,285,147 to 8,332,450. UMass' student population growth also greatly surpassed that of private four-year non-profit universities in the United States over the same period, which increased by 16.4 percent.

Figures 2⁴ and 3⁵ break down the total enrollment growth from figure 1 into undergraduate and graduate enrollment, comparing UMass with the same categories of schools presented in figure 1 from 2005 to 2014. As the charts illustrate, UMass' cumulative enrollment growth far outpaced that of all four categories of colleges and universities in both undergraduate and graduate

student enrollment growth during this period.

From 2005 to 2014, undergraduate enrollment growth at UMass was more than seven times greater than that of other New England state universities—25.4 percent versus 3.3 percent—and more than three times greater than that of Massachusetts private non-profit four-year universities, which experienced undergraduate enrollment growth of 7.3 percent. UMass' 25.4 percent undergraduate enrollment growth was also more than 1.5 times as much as that of public four-year universities in the United States, which grew by 15.9 percent, and of private non-profit four-year universities in the U.S., which grew by 15.0 percent.

Cumulative graduate enrollment growth at UMass also far exceeded growth at the four comparison groups of colleges and universities from 2005-2014. UMass' 33.8 percent increase was more than four times greater than that of other U.S. four-year public universities, which grew by 7.6

FIGURE 1. CUMULATIVE ENROLLMENT GROWTH (UNDERGRADUATE AND GRADUATE) AT UMASS AND OTHER CATEGORIES OF UNIVERSITIES, 2005-2014

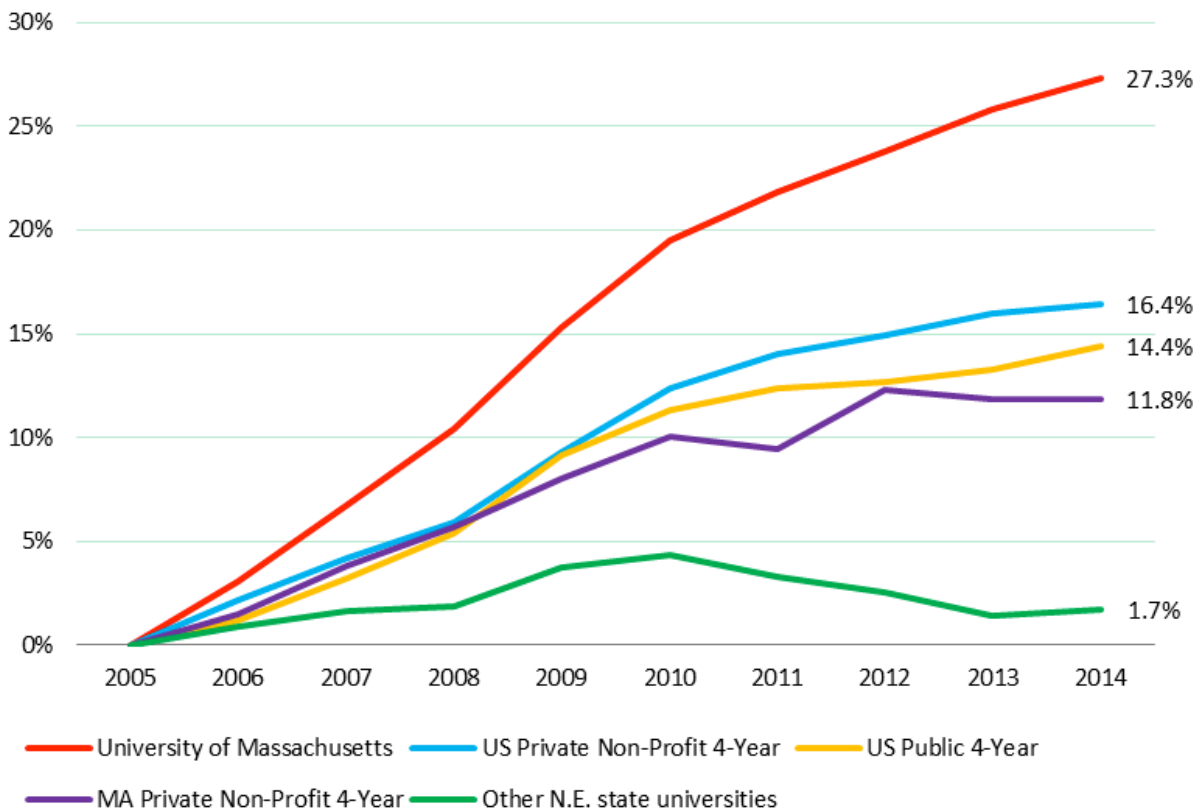


FIGURE 2. CUMULATIVE ENROLLMENT GROWTH (UNDERGRADUATE) AT UMASS AND OTHER CATEGORIES OF UNIVERSITIES, 2005-2014

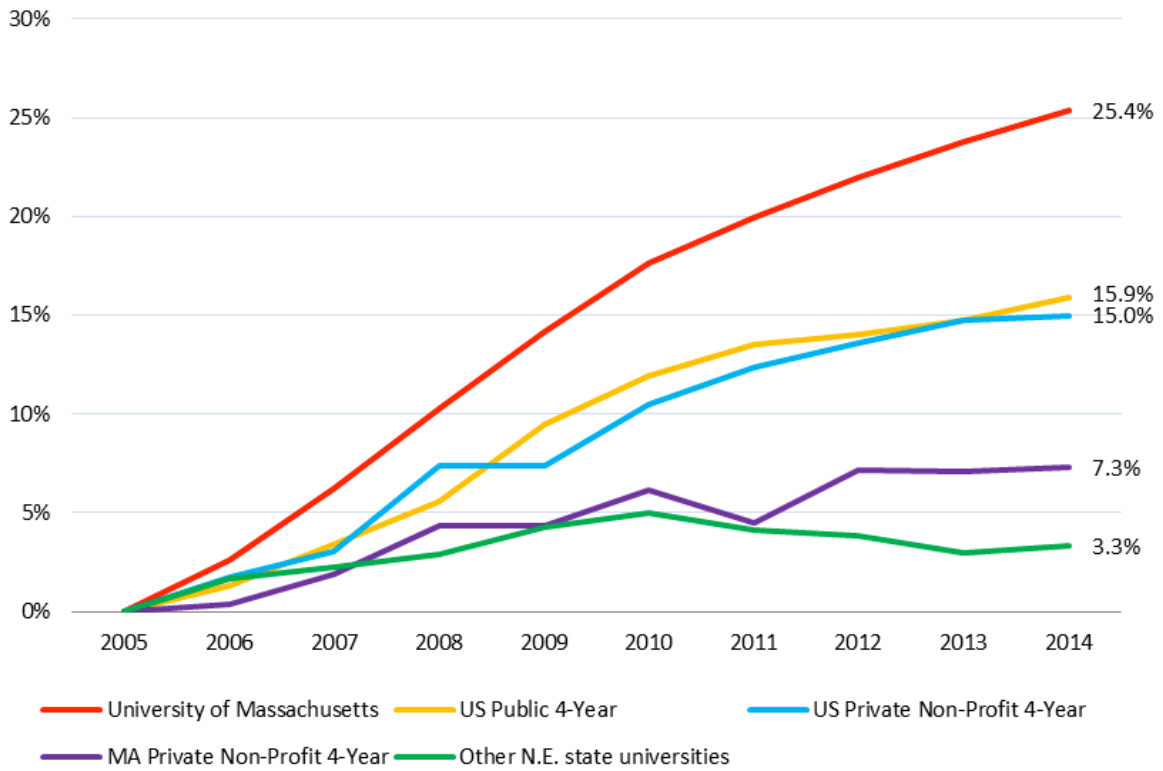
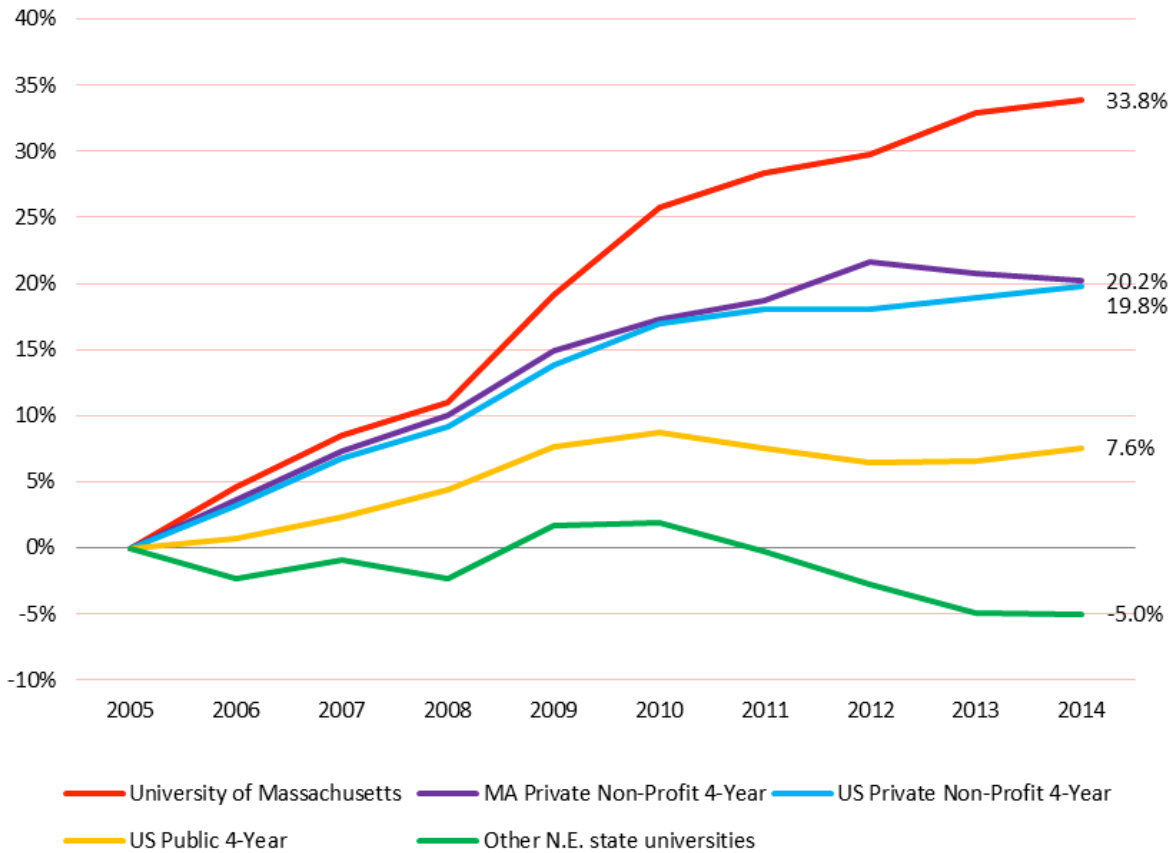


FIGURE 3. CUMULATIVE ENROLLMENT GROWTH (GRADUATE) AT UMASS AND OTHER CATEGORIES OF UNIVERSITIES, 2005-2014



percent, and more than two-thirds greater than that of Massachusetts private non-profit four-year universities, which grew by 20.2 percent. UMass also largely outpaced private non-profit four-year universities in the United States, which increased enrollment by 19.8 percent.

As figure 4⁶ shows, UMass' cumulative undergraduate enrollment growth from 2005-2014 also greatly exceeded enrollment rates in this category among other state universities across New England over this timeframe. UMass' enrollment growth rate within this group—25.4 percent—was more than twice the rate reported at the University of Vermont (UVM) and the University of Connecticut (UConn), which grew by 11.5 and 11.9 percent over this period, respectively. UMass' expansion of undergraduate enrollment over this time was also three times greater than that of University of New Hampshire (UNH), which grew by 8.8 percent. Although some other public

universities, such as the University of Rhode Island (URI), have also demonstrated significant growth (17.7 percent in the last ten years), UMass still significantly outpaced each peer school in this group.

A comparison of cumulative graduate enrollment growth at UMass to other New England state university systems from 2005-2014 reveals a similar trend, as figure 5⁷ illustrates. Graduate enrollment at UMass over this period increased by 33.8 percent while it declined at other New England state universities by 5.0 percent. UMass is one of only three New England state universities that were able to increase enrollment in their graduate schools, and did so by more than twice as much as the school with the next largest growth, UCONN.

Within the UMass system, there has been substantial growth in enrollment among all of the system's schools. Figure 6⁸ presents a

FIGURE 4. UNDERGRADUATE ENROLLMENT AT UMASS AND OTHER NEW ENGLAND STATE UNIVERSITIES, 2005 TO 2014

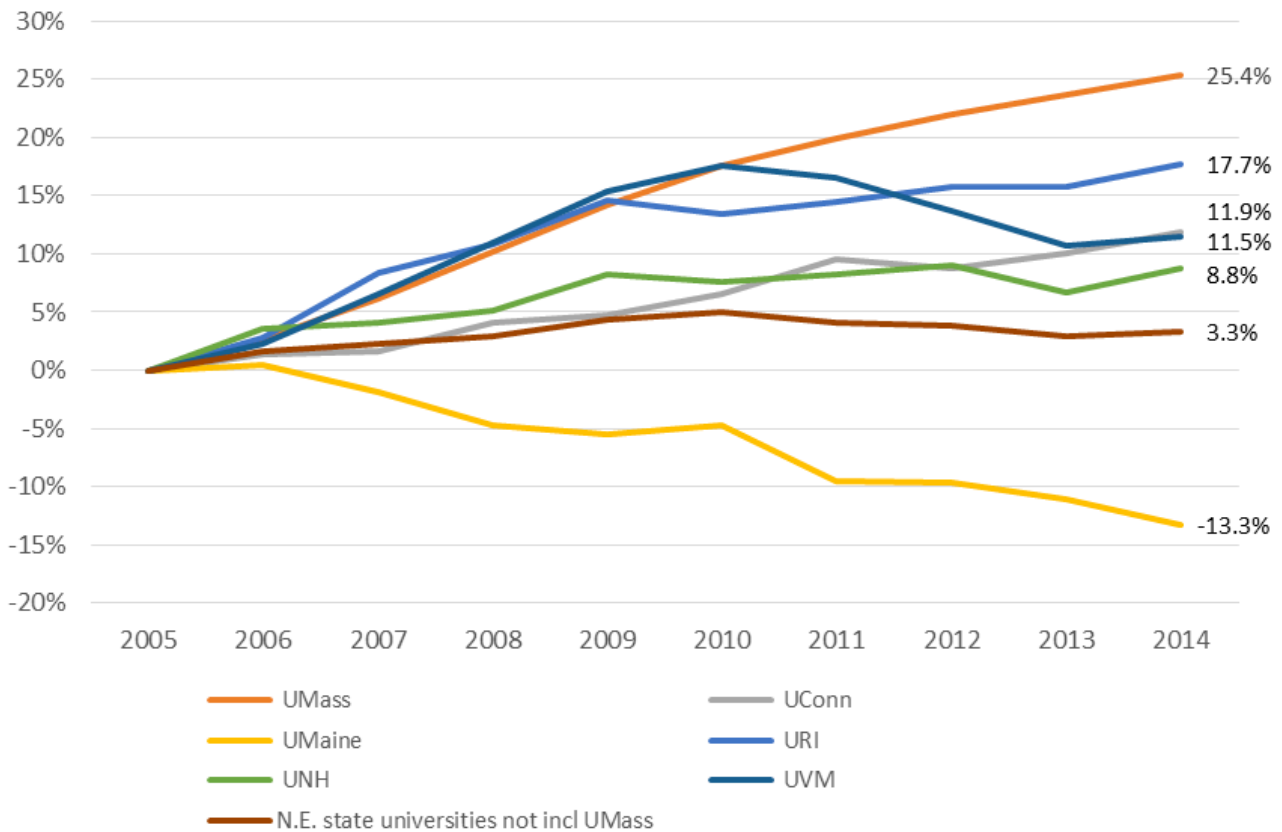
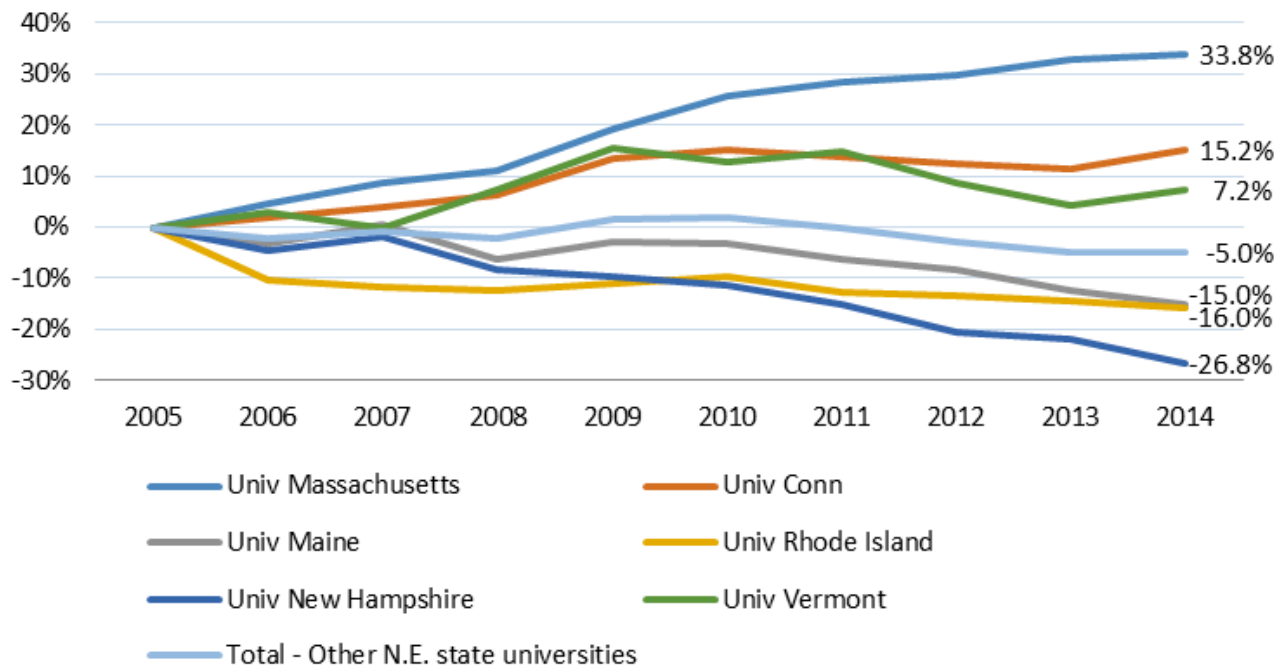


FIGURE 5. GRADUATE ENROLLMENT AT UMASS AND OTHER NEW ENGLAND STATE UNIVERSITIES, 2005 TO 2014



comparison of total enrollment growth, including undergraduate and graduate students, between the five UMass campuses from 2005-2014. The largest percentage growth at a single campus occurred at UMass-Lowell, which increased enrollment by 52 percent, jumping from 11,213 to 17,039 enrollees over this period. The next greatest percentage increase occurred at UMass-Boston, where enrollment grew by 43.7 percent, from 9,988 to 14,357. UMass-Dartmouth increased enrollment by 18 percent from 2005 to 2014, from 9,876 students to 11,650, while UMass-Amherst increased by 14.1 percent from 25,093 to 28,635 enrollees. UMass-Medical School in Worcester increased enrollment by 9.4 percent from 1,008 to 1,103.

The data also show significant differences in growth between undergraduate and graduate enrollees across the UMass system in recent years. Figures 7 and 8⁹ show enrollment for all UMass campuses from 2005-2014, comparing numbers for both undergraduate and graduate students. UMass increased undergraduate student enrollment from 44,180 to 55,389 students at its four undergraduate campuses¹⁰ during this time—

an increase of 25.4 percent. As shown in figure 7, the UMass campus with the greatest percentage increase in enrollment was UMass-Lowell, where the number of undergraduates increased by 56.3 percent from 8,309 to 12,983 over this period. The next largest percentage increase occurred at UMass-Boston, where enrollment jumped 41.8 percent, from 8,958 to 12,700 students. UMass-Amherst increased by 14.7 percent from 19,394 to 22,252, and UMass-Dartmouth experienced a decrease in undergraduate enrollment from 2005-2014—a drop of 0.9 percent, from 7,519 to 7,454 students.

Graduate enrollment at the UMass system grew from 12,998 to 17,395 graduate students from 2005 through 2014. The individual campus data presented in figure 8 show that UMass-Dartmouth had the largest percentage increase in graduate enrollment in the UMass system, jumping from 2,357 to 4,196 graduate students, for a total increase of 78.0 percent. The next greatest percentage increase occurred at UMass-Boston, which increased enrollment by 60.9 percent from 1,030 to 1,657 over this period. UMass-Lowell increased by 39.7 percent from 2,904 to 4,056

FIGURE 6. CUMULATIVE TOTAL ENROLLMENT GROWTH AT UMASS CAMPUSES, 2005-2014

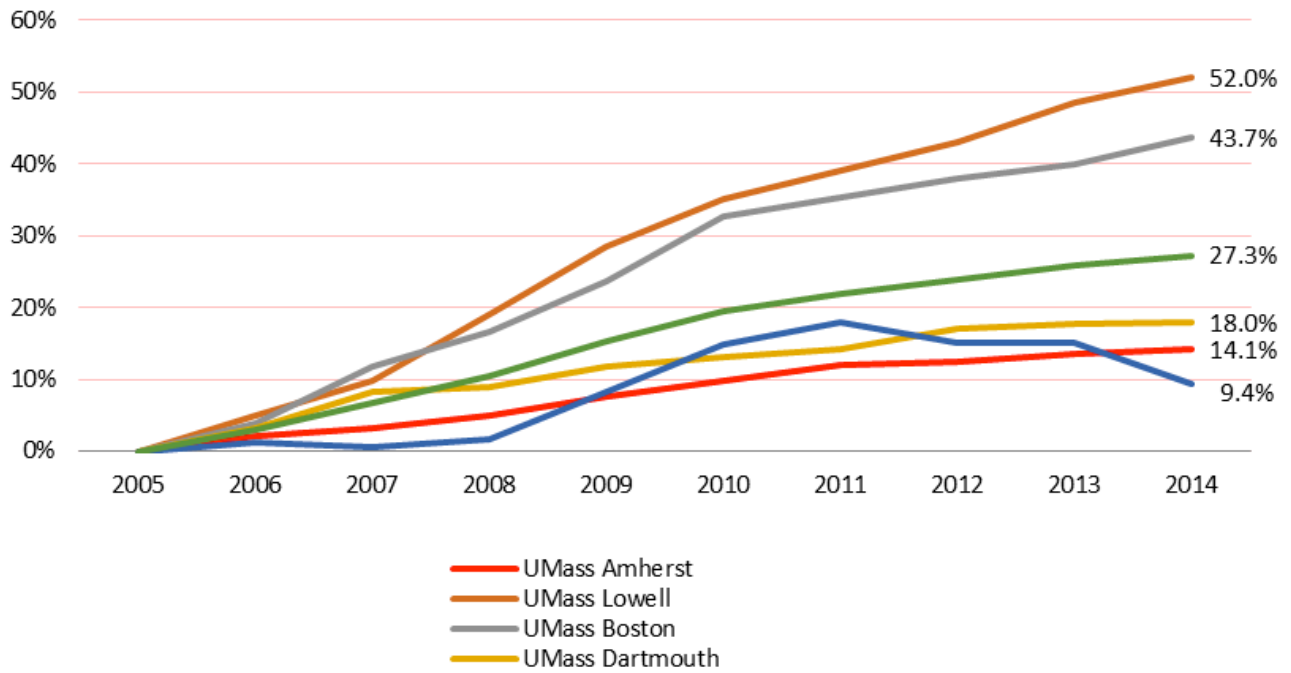


FIGURE 7. CUMULATIVE UNDERGRADUATE ENROLLMENT GROWTH AT UMASS CAMPUSES, 2005-2014

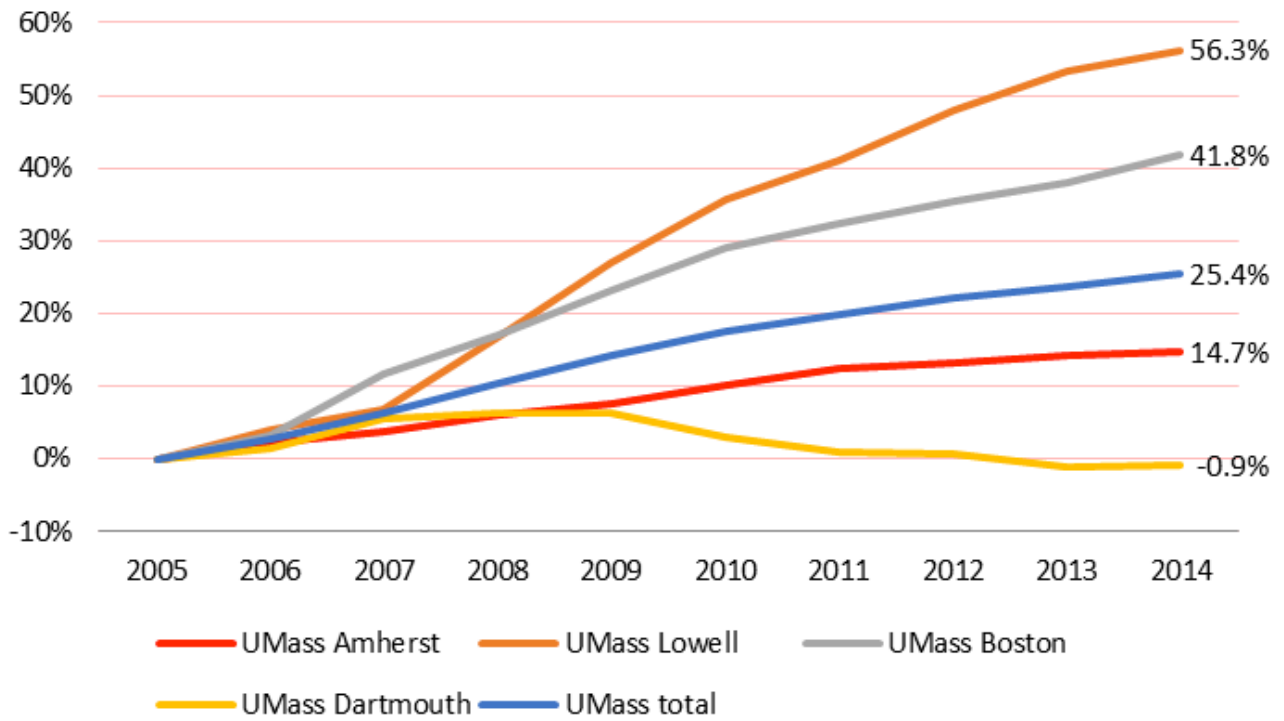
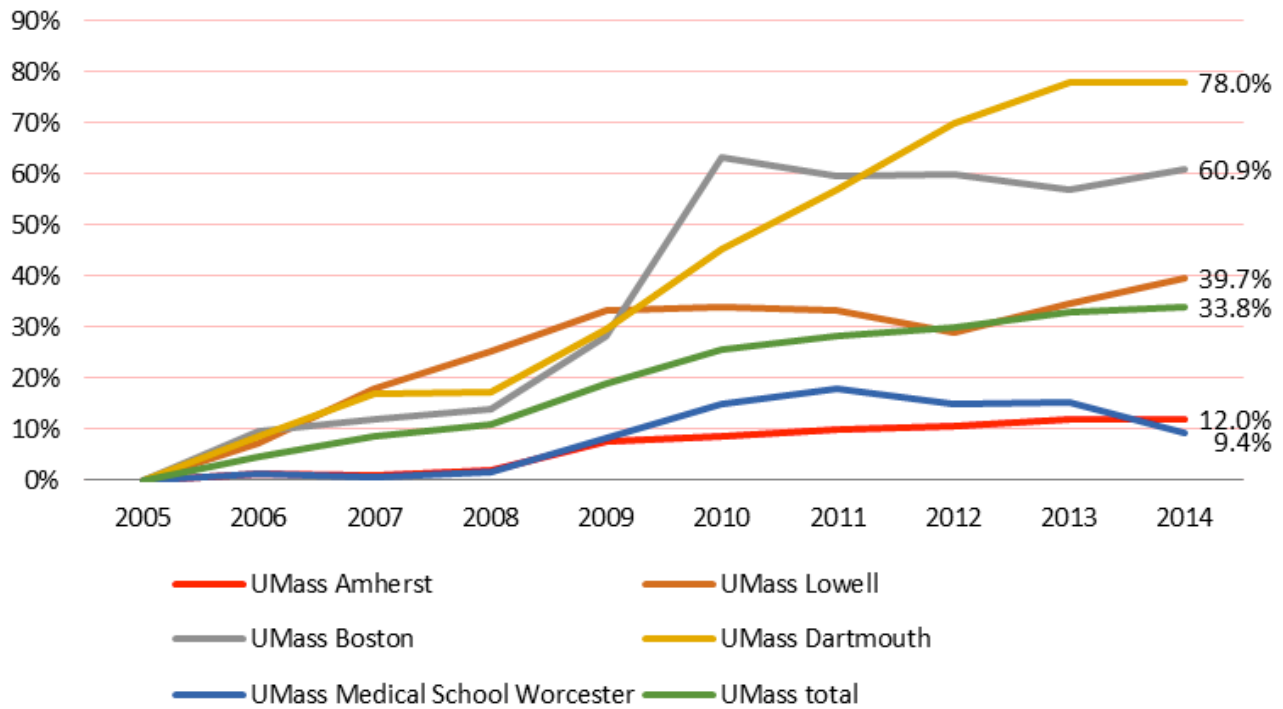


FIGURE 8. CUMULATIVE GRADUATE ENROLLMENT GROWTH AT UMASS CAMPUSES, 2005-2014



students, and UMass-Amherst increased by 12.0 percent from 5,699 to 6,383. Graduate enrollment at UMass-Medical School Worcester grew by 9.4 percent from 1,008 to 1,103 students.

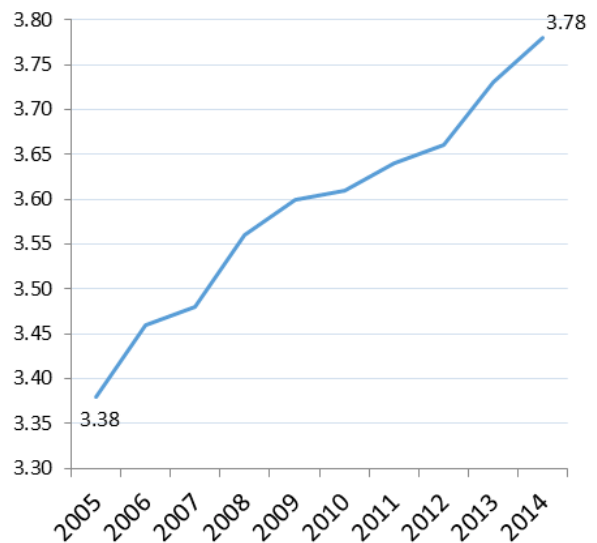
UMASS' INCREASING COMPETITIVENESS

As the previous section illustrates, UMass' student population has exploded over the last ten years at a rate that is far beyond what can be observed at other comparable universities. Accompanying this growth has been a shift in UMass' profile—particularly with respect to a changing student body at the system's schools and reflected by an increasingly selective admissions process and overall higher level of academic performance among applicants.

Rising achievement levels among incoming freshmen in recent years have brought up student averages significantly. The academic profile of an average incoming freshmen at UMass-Amherst has become competitive with students at some of the most prestigious and elite research universities in America. In 1992, the high school grade point

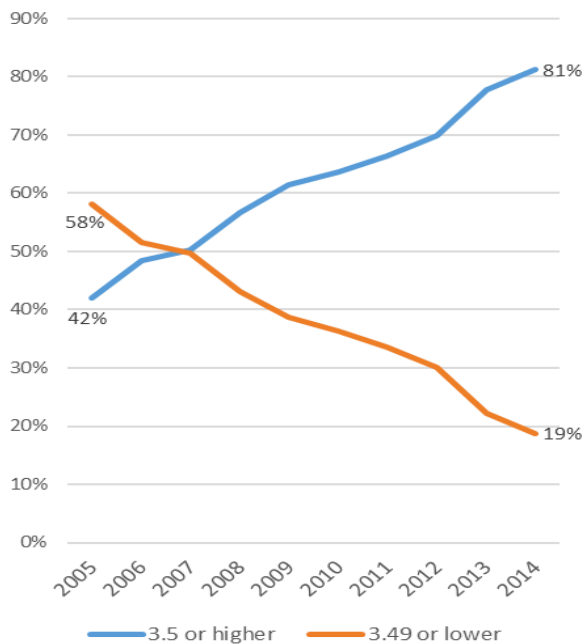
average (GPA) of the average incoming freshman at the Amherst campus was 2.82; by 2005 it had risen to 3.38, and by 2014 to 3.78, as shown in Figure 9.¹¹

FIGURE 9. AVERAGE GPA OF ADMITTED FRESHMEN AT UMASS-AMHERST, FALL 2005-FALL 2014



Another metric that illustrates UMass' changing academic profile is the growing proportion of students with higher GPAs. As figure 10¹² illustrates, there has been a continuous rise in the percent of enrolled freshman at UMass-Amherst with a high school GPA of 3.5 or higher and a steady decline in the percent of enrolled freshman with GPAs below 3.5. In 2005, 42 percent of enrolled freshman had GPAs of 3.5 or higher; by 2015, this percentage had climbed to 81 percent. Conversely, 58 percent of enrolled freshman had GPAs of less than 3.5 in 2005; by last year, only 19 percent of the student population had a GPA below this average. As these numbers confirm, admittance to UMass has become competitive on a level not before seen in public higher education in Massachusetts.

FIGURE 10. PERCENT OF ADMITTED FRESHMEN WITH GPA HIGHER/LOWER THAN 3.5 AT UMASS-AMHERST, FALL 2005-FALL 2014



The growing number of incoming freshman ranked in the highest percentiles of their high school graduating classes provides more evidence of progressively competitive admissions at UMass. Figure 11¹³ shows that in Fall 2003 at UMass-Amherst, 44 percent of admitted freshmen

ranked in the top 25 percent of their graduating high school classes. Over just eleven years, that percentage rose to 72 percent. This trend is also observable among enrolled freshman at the Amherst campus who graduated in the top 10 percent of their high school class. In 2003, 16 percent of enrolled freshman could claim this achievement; by 2014, the percentage increased to 33 percent.

FIGURE 11. PERCENT OF ADMITTED FRESHMEN IN TOP 25TH PERCENTILE RANK IN HIGH SCHOOL CLASS AT UMASS-AMHERST, FALL 2003-FALL 2014

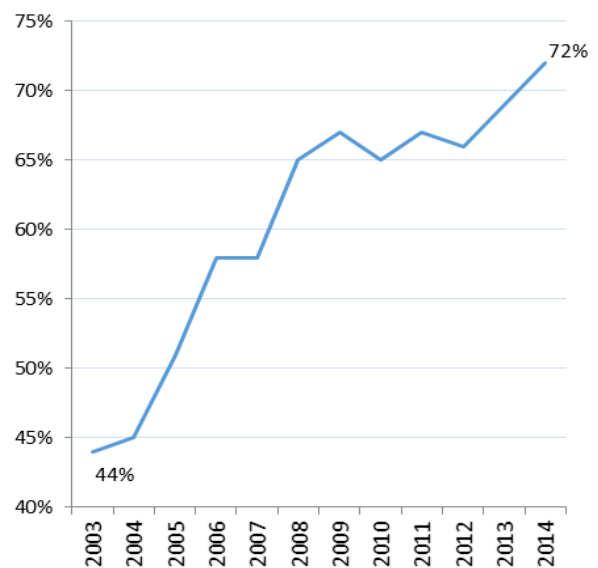
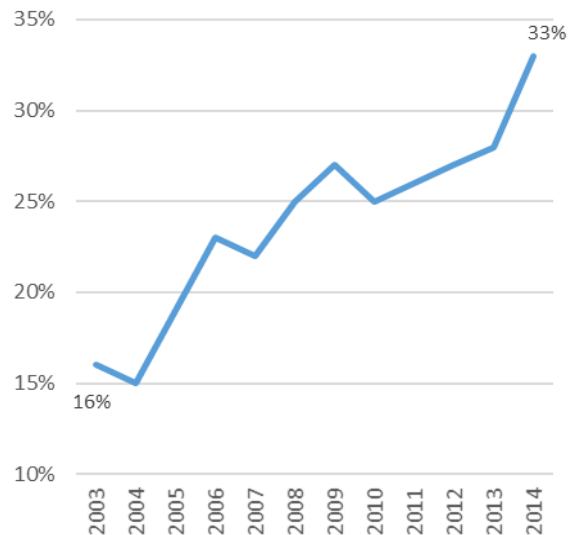


FIGURE 12. PERCENT OF ADMITTED FRESHMEN IN TOP 10TH PERCENTILE RANK IN HIGH SCHOOL CLASS AT UMASS-AMHERST, FALL 2003-FALL 2014



In addition to higher grade averages, testing performance data since 2005 reveal significant changes among incoming students over the years. This is evident in the rise in SAT scores of enrolled freshman at UMass-Amherst. As Figure 13¹⁴ shows, the 75th percentile math SAT score of enrolled freshmen rose from 630 in 2005 to 670 by 2015. The 75th percentile critical reading/verbal SAT score of enrolled freshmen in 2005 was 620, and rose to 640 in 2015. This growth is also evident in the 25th percentile math and reading/verbal SAT scores at UMass-Amherst. From 2005 to 2015, the 25th percentile critical reading/verbal score rose from 510 to 550. In math, the 25th percentile SAT score of enrolled freshmen jumped from 520 to 570 in 2015. As these numbers demonstrate, students admitted to UMass today are scoring significantly higher on the SATs than they did ten years ago.

FIGURE 13. 75TH PERCENTILE SAT SCORE (CRITICAL READING/VERBAL AND MATH) OF ADMITTED FRESHMAN CLASS AT UMASS-AMHERST, FALL 2005-FALL 2014

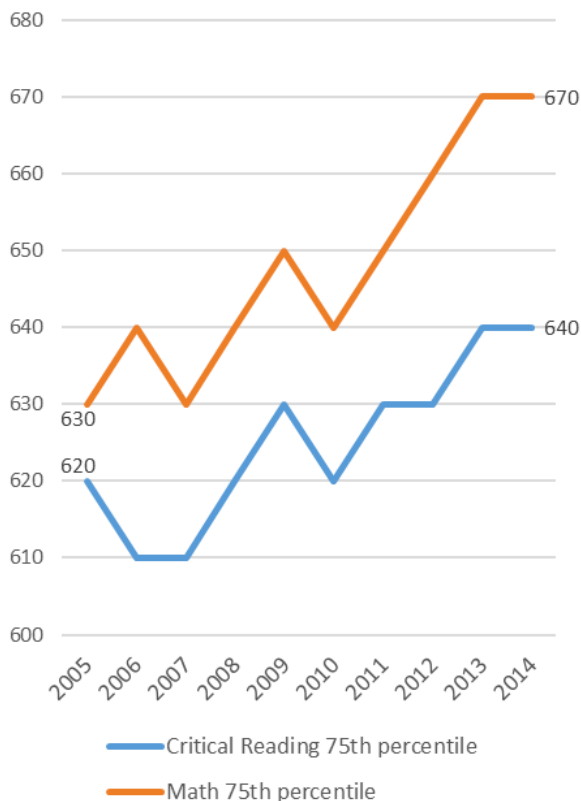
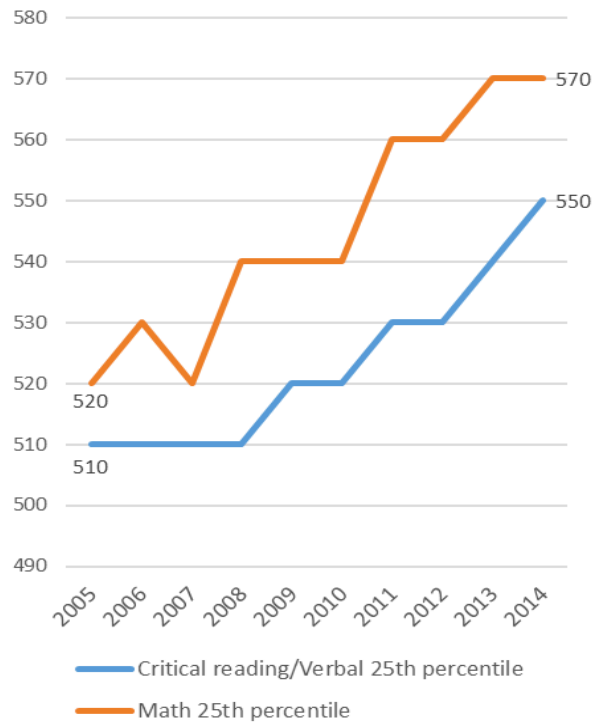


FIGURE 14. 25TH PERCENTILE SAT SCORE (CRITICAL READING/VERBAL AND MATH) OF ADMITTED FRESHMAN CLASS AT UMASS-AMHERST, FALL 2005-FALL 2014



While the academic excellence of new enrollees at UMass deserves praise, it is important to acknowledge that the related rise in academic competition has made it considerably more difficult for in-state applicants to be admitted to the system—particularly to UMass-Amherst. In the 2005-06 admission cycle, 80.7 percent of in-state first-year applicants received letters of acceptance; in the 2015-16 cycle, only 56.8 percent of in-state applicants were offered admission. This trend suggests that UMass is growing increasingly out-of-reach for Massachusetts students, and this development is inextricably linked to the observation that UMass has become significantly more popular as a destination for out-of-state students.

This claim is supported by data since 2005—in particular, the growing volume of applications that come from prospective students outside of Massachusetts. At UMass-Amherst in 2005-06, 65.2 percent of applications for first-year admission came from in-state students and 34.8

percent from out-of-state students. By the 2015-16 admission cycle, 51.3 percent of applications came from in-state and 48.7 percent from out-of-state. In 2015-16, for the first time in its history, UMass-Amherst made more offers of admission to out-of-state students (11,657 offers) than it did to in-state students (11,651 offers). Just ten years prior, 34.6 percent of UMass-Amherst's admission offers (5,613) went to out-of-state applicants and 65.4 percent to in-state students (10,628). In the decade between these admission cycles, enrollment of first year out-of-state students at UMass-Amherst increased from 21 percent to 27.9 percent. Out-of-state undergraduate enrollment increased across all UMass campuses by 84.5 percent between 2008 and 2014, while in-state enrollment increased by just 19 percent over the same period.

UMASS' EXPANSION IN THE FACE OF DECLINING MASSACHUSETTS HIGH SCHOOL ENROLLMENT

UMass' rapidly growing enrollment and related capital expansion have brought the university to historically high levels of operating and capital expenses. As the school's FY2015-2019 Capital Plan reveals, the leadership at UMass has delineated a series of proposals to proceed with substantial capital additions and expansion, building on the development of the past ten years.

UMass' proposals for future expansion must be examined in consideration of projections of future demographic changes—particularly, a projected decline in the number of high school graduates.

A projected drop in future high school graduates

In a 2013 report, Jason E. Lane, Ph.D., of the Nelson A. Rockefeller Institute of Government asks the question: "Are colleges in the Northeast prepared for the new demographic reality?" His paper discusses the implications for colleges in the Northeast in light of projections prepared by the Western Interstate Commission for Higher Education (WICHE) on the number of high school students who will graduate each year in the United States through 2027-28 by state and region.¹⁵

WICHE has been producing high school graduate forecasts for more than 30 years, for use by a wide and diverse audience of policymakers, enrollment managers, college counselors, schools and school districts, researchers, and the media. In its most recent projections, included in *Knocking at the College Door: Projections of High School Graduates, 2012*, WICHE estimates that Massachusetts will see an 11.4 percent decline in high school graduates between 2015-16 and 2027-28. Professor Lane writes,

Demographic changes are lowering student demand for higher education — while at the same time a weak economy has exacerbated parents' and students' concerns about the cost versus value proposition of a college degree. The popular media have documented the growing concern among cash-strapped parents and employment-concerned students about tuition and fees. But for a number of years institutions have been able to offset higher costs by increasing their enrollments, because of a continual expansion of the traditional educational pipeline. The number of new high school graduates rocketed up 23 percent nationally between 1995 and 2005. . . . However, a recent report, *Knocking at the College Door*, indicates that the number of high school graduates will decline in the coming two decades, particularly in the Northeast, and many colleges and universities are going to struggle to maintain their share of high-school graduates. In fact, those institutions that don't learn to adapt to the new reality will likely close doors by the end of the decade. . . . With the exception of New York, each state in the Northeast is predicted to have fewer high-school graduates by 2028 than they have today. Maine, New Hampshire, Rhode Island, and Vermont will be the worst affected, each having declines exceeding 15 percent. (Michigan is the only other state in the nation to fall in this category.) Connecticut, Massachusetts, New Jersey, and Pennsylvania will see declines between 5 and 15 percent.¹⁶

Figure 15¹⁷ presents WICHE projections of high school graduates from both public and private high schools in the U.S. by region relative to Massachusetts. In its 2012 report, WICHE projects a 7.4 percent growth of high school

graduates in the U.S. from 2015-16 to 2024-25, from 3,265,460 to 3,508,504, contrasted with a projected 5.4 percent decline of high school graduates in Massachusetts over the same period, from 71,880 to 67,999. WICHE projects that during the subsequent three years, from 2024-25 to 2027-28, the number of U.S. high school graduates will decline from 3,508,504 to 3,251,020, resulting in a net decline of 0.4 percent between 2015-2016 and 2027-28. Comparatively, WICHE projects that Massachusetts high school graduates will decline from 67,999 to 63,691 during the subsequent three years from 2024-25 to 2027-28, resulting in a net decline of 11.4 percent between 2015-2016 and 2027-28.

The projected demographic changes described above vary significantly by region. The South, for instance, is forecast to experience the greatest growth: 4.7 percent between 2015-16 and 2027-28. The Northeast and Midwest regions are forecast to have declines of 5.0 percent and 6.1 percent respectively over the same time period. The West region is forecast to have 0 percent net

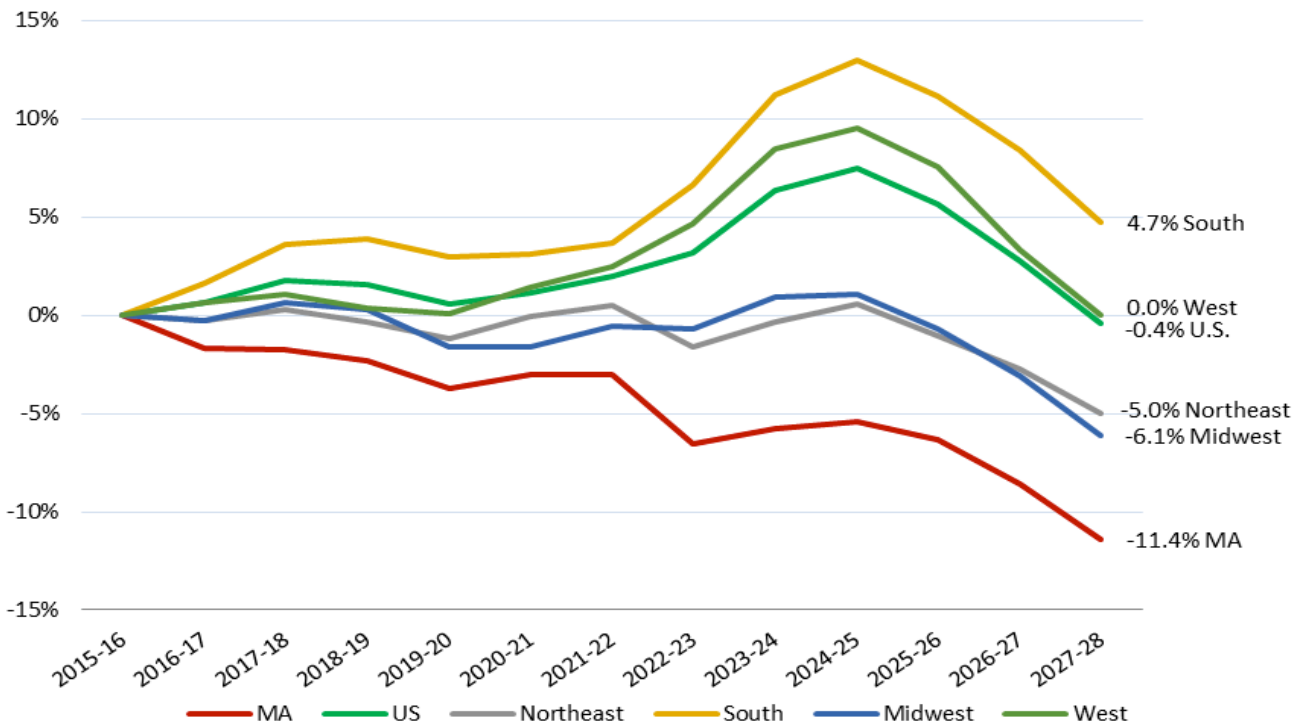
change in high school graduates from 2015-16 to 2027-28.

Figure 16¹⁸ presents WICHE data on high school graduates from public and private high schools in Massachusetts from 1996-97, projecting out through 2027-28. The graph shows a dramatic rise in high school graduates in Massachusetts from 57,968 in 1996-97 to 76,050 in 2007-08, followed by a period of substantial decline that is projected to drop to 63,691 in 2027-28.

WICHE forecasts a steeper decline in graduates of private secondary institutions than in public high schools in Massachusetts from 2015-16 through 2027-28—these schools will see a drop of 23.6 percent and 9.6 percent, respectively. Combined, WICHE’s projections of public and private high school graduates in the Commonwealth add up to a projected decline of 11.4 percent over this period.

WICHE’s forecasts of expected future graduates also delineate by race/ethnicity. The group projects that the number of white/non-Hispanic public high school graduates will decline by

FIGURE 15. WICHE PROJECTED HIGH SCHOOL GRADUATES BY REGION, U.S. AND MA, 2015-16 THROUGH 2027-28



22.1 percent between 2015-16 and 2027-28 in Massachusetts, as shown in Figure 18.²⁰ WICHE also predicts that the number of Asian/Pacific Islander public high school graduates will increase in Massachusetts by 35.1 percent between 2015-

16 and 2027-28. Hispanic public high school graduates are forecasted to increase by 33.1 percent over this period, while black/non-Hispanic high school graduates are expected to increase by 4.3 percent. Overall, public high school graduates

FIGURE 16. WICHE – ACTUAL AND PROJECTED MA HIGH SCHOOL GRADUATES BY YEAR

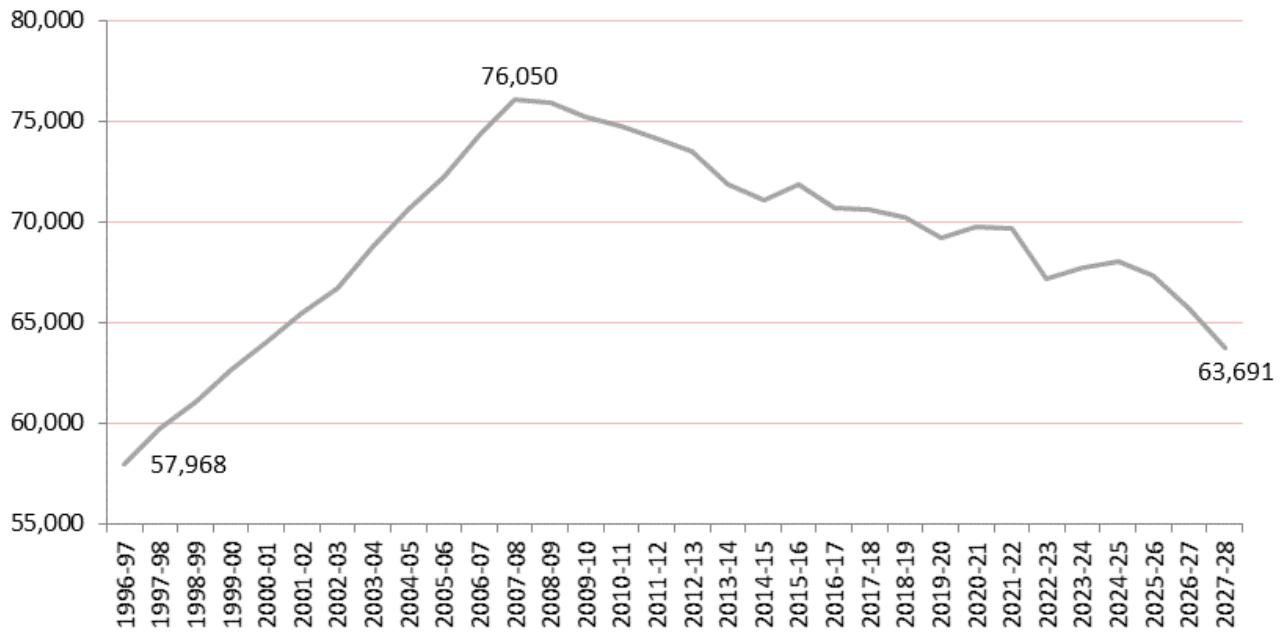


FIGURE 17. PROJECTED TRENDS IN HIGH SCHOOL GRADUATES OF PUBLIC/PRIVATE SCHOOLS IN MA 2015-16 THROUGH 2027-28¹⁹

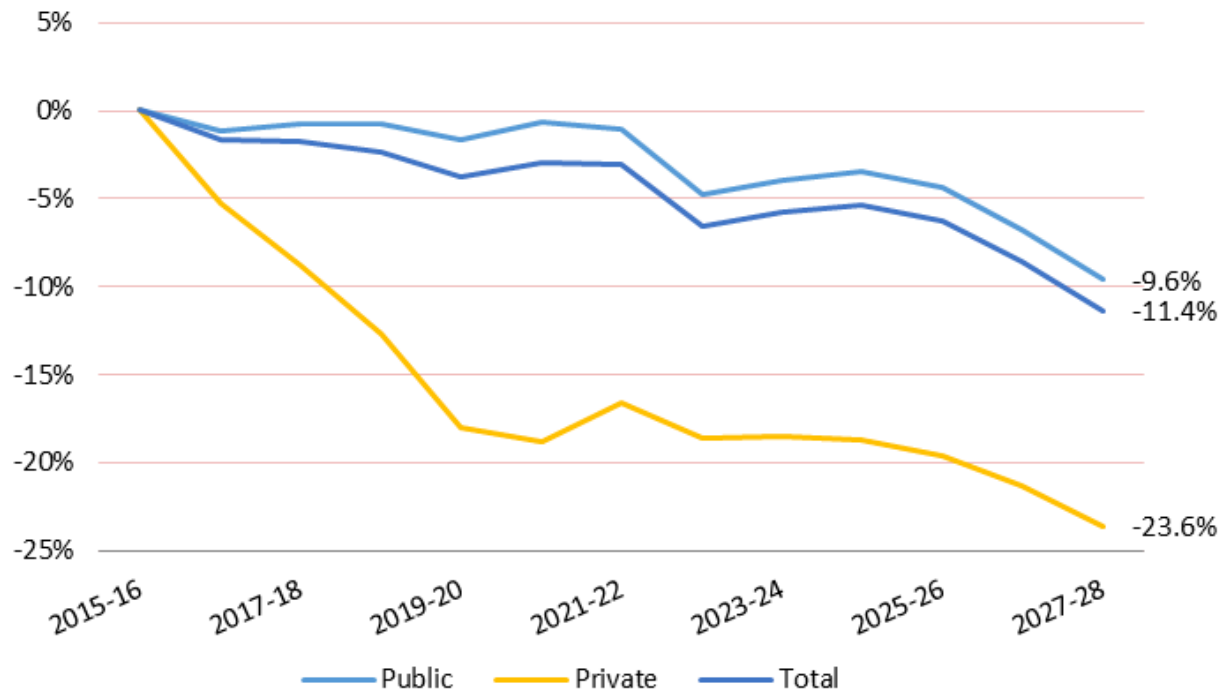
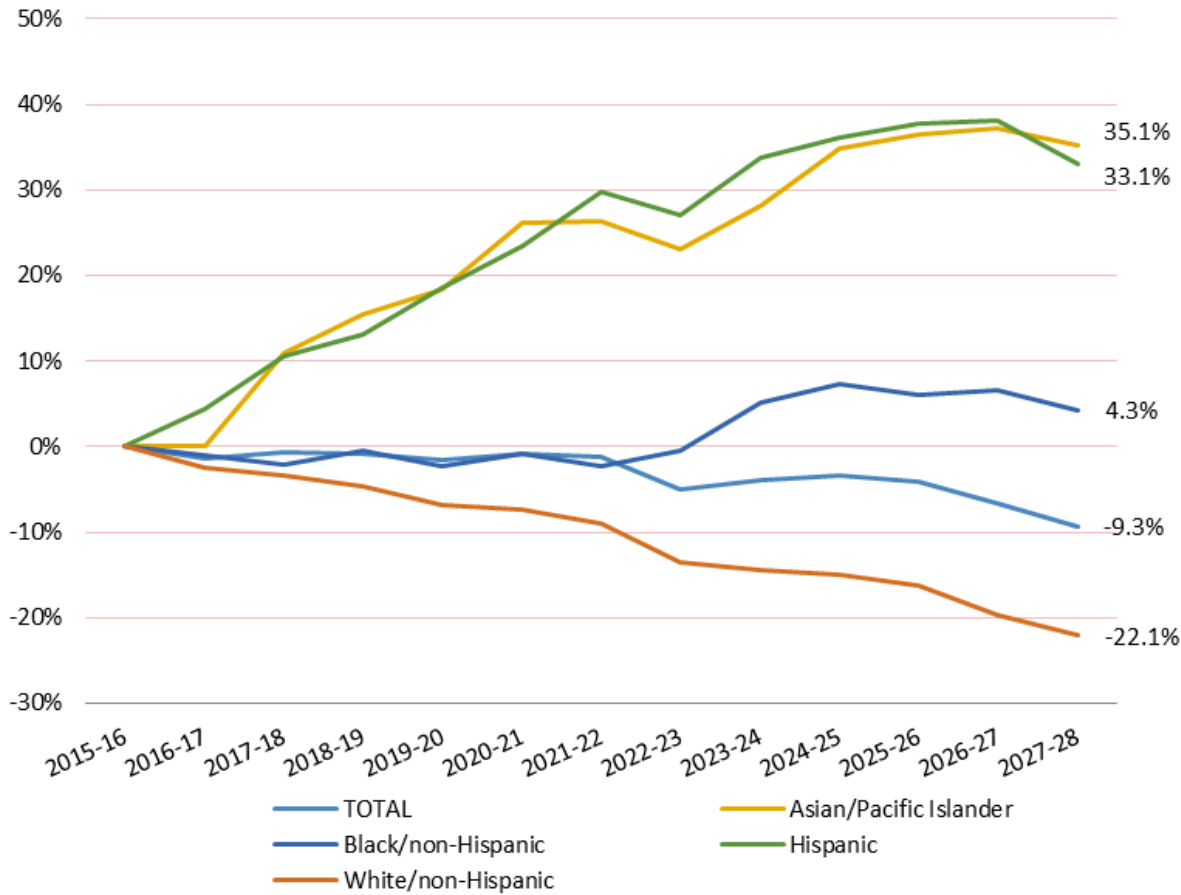


FIGURE 18. PROJECTED MASSACHUSETTS PUBLIC SCHOOL GRADUATES BY RACE/ETHNICITY, 2015-16 THROUGH 2027-28



are expected to decline by 9.3 percent over this time while the percentage of minority high school graduates is projected to increase.

WICHE’s projections of declining high school enrollment in Massachusetts between 2015-16 and 2027-28 mirror similar projections made by the U.S. Department of Education (USDOE) for the period 2015-16 and 2022-23. USDOE projects a 3.2 percent increase in U.S. high school graduates from 2015-16 through 2022-23 but a 3.3 percent decline among Massachusetts high school graduates over the same period. USDOE also projects an 8.8 percent increase in full-time college enrollment in the U.S. from 2015-16 to 2022-23, but forecasts that 35 states will see an increase in high school graduates over that period while the rest, including Massachusetts, will see a decline.

DISCUSSION

The impact of UMass’ enrollment expansion on Massachusetts’ small independent colleges

In the face of a projected decline in the number of Massachusetts high school graduates, what are the implications of UMass’ growing enrollment for small independent institutions of higher learning in the commonwealth that receive no subsidy from the state? Principally, to what degree will these smaller schools be crowded out by UMass’ expansion, which has in large part been facilitated by growing financial subsidy from the state?

Jon Marcus, higher education editor of the *Hechinger Report*, published an article in the *Boston Globe* on July 8, 2015 entitled “Can small colleges survive? Cash crunches and enrollment challenges are taking a toll here and around the country.”

The article chronicles financial woes at small independent colleges in Massachusetts and around the country, including 12 Massachusetts colleges that were among more than 300 nationwide that reported space remaining in their fall 2015 entering classes, including Dean, Springfield, and Wheaton. It also cited an accreditors' report that identified budget concerns at Wheelock College in Boston, a \$4 million budget shortfall at Gordon College, and the announced closing of Marian Court College in Swampscott.

In his article, Marcus notes: "Problems such as these are of particular concern in Massachusetts, which boasts a disproportionate number of the kind of private universities and colleges most at risk—and where higher education is one of the principal industries. . . . Private nonprofit colleges with 3,000 or fewer students saw a 2.4 percent decline in enrollment this spring, according to the National Student Clearinghouse."²¹

Craig Douglas, managing editor of the *Boston Business Journal*, published an article on November 20, 2014 entitled "Higher ed's strains cause enrollment pains at Massachusetts colleges" expressing similar concerns. In his article, Douglas shares that college enrollment declined for the second time in two years in 2013:

...the future looks pretty bleak for any schools desperate for a rebound. That forecast is especially grim for smaller, tuition-dependent schools in the Northeast, where economic and population trends are weighing heavily on many private institutions. Simmons College in Boston is among the local schools to report undergraduate enrollment declines in the current fall semester...

Overall, college enrollment [in the U.S.] dropped by 463,000 students to just over 3 million students last year. It's a pool of college-aged students that is expected to see little growth over the next decade, as U.S. Census data indicates that the population of graduating high school students will only expand by around 4.7 percent between now and 2021. Standard and Poor's said most of that growth will be concentrated in fast-growing states such as Texas, Florida and California, while declining populations

in the Northeast and Midwest will prove challenging to schools in those regions.²²

Similar concerns are cited in Jason E. Lane's 2013 report cited previously, in which Lane cautions that "private colleges and universities in the Northeast will feel the brunt of changing demographics and declining high school graduates in coming years."

Concerns raised by these authors merit serious consideration by state policymakers. In particular, lawmakers must ask: should decisions about UMass' ongoing enrollment expansion take into consideration its impact on the fate of Massachusetts private colleges? As mentioned above, UMass increased enrollment by 15,606 students from 2005 to 2014—a 27.3 percent increase—and plans to continue expansion. The fact that just shy of half the cost of student education at UMass is subsidized by state funding—subsidy that provides students with steeply discounted tuition rates—suggests that continued expansion by UMass is likely to exacerbate enrollment declines at private colleges that do not receive state subsidies. These private schools will likely have to compete with UMass to attract students from a declining pool of Massachusetts high school graduates between now and 2027-28. While many of the nationally prominent private institutions in Massachusetts would be largely unaffected by student expansion at UMass, others—particularly smaller, less well-funded institutions—would likely be so.

Enrollment expansion in the face of projected declines in Massachusetts high school graduates over the next twelve years should not be a default strategy for UMass without due consideration of broader public policy considerations, including the effects it will have beyond the university. Expansion for the purpose of offering seats to additional out-of-state students, thereby adding both capital and operating costs to the university budget, may not serve the university's central mission of serving Massachusetts residents. The university's expressed policy of increasing out-of-state and international enrollment at UMass

30-40 percent—which UMass President Marty Meehan disclosed to Pioneer Institute in a private meeting in February 2016—likewise may not serve this mission.

Considering that UMass' current \$14,171 tuition cost is subsidized by taxpayers regardless of the student's and family's ability to pay, another consideration is whether tuition subsidies should include a means-testing component. Almost all other Massachusetts government subsidies are means-tested. Private universities almost universally charge a high sticker price for tuition and use the revenues to finance discounts on a means-tested basis. According to the 2014 National Association of College and University Business Officers Association (NACUBO) Tuition Discounting Study,

Among the 411 private, non-profit four-year colleges and universities surveyed, average discount rates for both first-time, full-time freshmen and all undergraduates reached all-time highs in the 2014-15 academic year. The average discount rate—defined as institutional grant dollars as a percentage of gross tuition and fee revenue—is estimated to have reached 48.0 percent for freshmen and 41.6 percent for all undergraduates, up from 46.4 percent and 39.8 percent, respectively, in 2013-14.²³

The Baker administration has not agreed to guarantee a 50:50 funding split between UMass and the state for the cost of in-state student education at the university absent consideration of broader issues of how much the university plans to expand, and what form that expansion will take. Secretary Peyser recently said the administration made the decision not to aim for 50:50 funding based not only on available resources, but on a policy decision that the state should not commit to funding half of it without some agreement about what the total UMass budget should be. In Peyser's words, "From a policy point of view, even if we had the resources, we would need to look at whether that was the right way to go."²⁴

CONCLUSION

The data presented in this paper quantify some of the significant changes that have taken place at

UMass over the last decade. Massachusetts' public university system has raised its academic profile significantly over this time—first year students admitted to UMass today have considerably higher GPAs, class ranks, and SAT scores than their counterparts did in 2005. Admission rates have dropped, meaning UMass is receiving increasingly more applicants than they can admit each year. This suggests that UMass' reputation is generating more interest from prospective students, both inside and outside of Massachusetts. The school has aggressively expanded its enrollment, adding students at a rate faster than that of other U.S. public universities, other New England state universities, private four-year universities in the U.S. and private four-year universities in Massachusetts. UMass outpaced these comparative groups both in undergraduate and graduate enrollment expansion.

While this expansion at UMass is impressive, it raises questions of whether it is in the best interest of its students and the system as a whole. The elevation of UMass' national profile has led to growing competition for admission, which may be disadvantaging in-state students, who have been comprising a steadily smaller portion of the UMass student body—something that will be explored in more detail in the third paper in this series. Furthermore, UMass' dramatic expansion in enrollment and plans for continued expansion must be considered in light of future projections of a considerable decline in the number of Massachusetts high school graduates over the next twelve years. The volume of high school graduates in Massachusetts has not increased since 2007-08, yet UMass has enrolled more students each year since 2005, for a total increase of 27.3 percent as of 2014.

Imperative in this policy discussion is a focus on UMass as a public institution that serves the commonwealth: more specifically, as a public university that receives a significant amount of its funding from the state and has since its founding principally served in-state students. As the school enrolls a significantly larger number of out-of-state students, the school must work with elected

officials to determine a pragmatic plan that ensures UMass' changing identity does not compromise the institution's mission of serving Massachusetts' students.

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About Pioneer

Pioneer Institute is an independent, non-partisan, privately funded research organization that seeks to change the intellectual climate in the Commonwealth by supporting scholarship that challenges the "conventional wisdom" on Massachusetts public policy issues.

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Fordham Institute's Pretend Research, Policy Brief, February 2016

Data Reveals Out of Control Administrative Staffing Budget Increases at MBTA, Policy Brief, February 2016

Massachusetts Charter Public Schools: Best Practices in Curricular Innovation, White Paper, January 2016



Endnotes

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3. Accompanied by Table – Figure 1 in the Appendix
4. Accompanied by Table – Figure 2 in the Appendix.
5. Accompanied by Table – Figure 3 in the Appendix.
6. Accompanied by Table – Figure 4 in the Appendix.
7. Accompanied by Table – Figure 5 in the Appendix.
8. Accompanied by Table – Figure 6 in the Appendix.
9. Accompanied by Table – Figure 7 and Table – Figure 8 in the Appendix.
10. UMass-Medical School Worcester does not enroll undergraduate students.
11. Accompanied by Table – Figures 9-14 in the Appendix.
12. Accompanied by Table – Figures 9-14 in the Appendix.
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APPENDIX

TABLE FOR FIGURE 1. CUMULATIVE TOTAL ENROLLMENT GROWTH (UNDERGRADUATE AND GRADUATE) UMASS AND OTHER CATEGORIES OF UNIVERSITIES FROM 2005 TO 2014

Total enrollment by year	UMass	US public 4-yr universities	US private non-profit 4-yr universities	MA private non-profit 4-yr universities	Other N.E. state flagship universities
2005	57,178	7,285,147	3,551,429	249,681	104,640
2006	58,938	7,372,062	3,628,921	253,449	105,534
2007	61,034	7,518,129	3,699,939	259,222	106,354
2008	63,127	7,676,539	3,761,592	263,945	106,579
2009	65,923	7,954,099	3,881,554	269,804	108,564
2010	68,315	8,112,711	3,991,477	274,825	109,213
2011	69,670	8,189,514	4,050,382	273,340	108,053
2012	70,774	8,207,557	4,080,508	280,352	107,307
2013	71,941	8,251,789	4,118,055	279,351	106,103
2014	72,784	8,332,450	4,134,676	279,220	106,397
Percentage of Total Enrollment					
2006	3.10%	1.20%	2.20%	1.50%	0.90%
2007	6.70%	3.20%	4.20%	3.80%	1.60%
2008	10.40%	5.40%	5.90%	5.70%	1.90%
2009	15.30%	9.20%	9.30%	8.10%	3.80%
2010	19.50%	11.40%	12.40%	10.10%	4.40%
2011	21.80%	12.40%	14.00%	9.50%	3.30%
2012	23.80%	12.70%	14.90%	12.30%	2.50%
2013	25.80%	13.30%	16.00%	11.90%	1.40%
2014	27.30%	14.40%	16.40%	11.80%	1.70%

TABLE FOR FIGURE 2. CUMULATIVE ENROLLMENT GROWTH (UNDERGRADUATE) UMASS AND OTHER CATEGORIES OF UNIVERSITIES FROM 2005 TO 2014

Undergrad	UMass	US Public 4-Year	US Private Non-Profit 4-Year	MA Private Non-Profit 4-Year	N.E. state universities not incl UMass
2005	44,180	5,964,198	2,502,895	161,632	84,055
2006	45,343	6,042,165	2,547,253	162,221	85,435
2007	46,928	6,166,936	2,580,041	164,720	85,947
2008	48,705	6,297,981	2,688,422	168,637	86,471
2009	50,444	6,531,469	2,688,422	168,637	87,640
2010	51,966	6,675,974	2,764,643	171,549	88,240
2011	52,987	6,768,942	2,812,620	168,847	87,526
2012	53,901	6,801,736	2,842,855	173,233	87,285
2013	54,671	6,844,164	2,871,211	173,051	86,525
2014	55,389	6,911,351	2,878,137	173,406	86,839
Increase	25.4%	15.9%	15.0%	7.3%	3.3%
Percentage of Total Enrollment					
2005	0%	0%	0%	0%	0%
2006	2.6%	1.3%	1.8%	0.4%	1.6%
2007	6.2%	3.4%	3.1%	1.9%	2.3%
2008	10.2%	5.6%	7.4%	4.3%	2.9%
2009	14.2%	9.5%	7.4%	4.3%	4.3%
2010	17.6%	11.9%	10.5%	6.1%	5.0%
2011	19.9%	13.5%	12.4%	4.5%	4.1%
2012	22.0%	14.0%	13.6%	7.2%	3.8%
2013	23.7%	14.8%	14.7%	7.1%	2.9%
2014	25.4%	15.9%	15.0%	7.3%	3.3%

TABLE FOR FIGURE 3. CUMULATIVE ENROLLMENT GROWTH (GRADUATE) UMASS AND OTHER CATEGORIES OF UNIVERSITIES FROM 2005 TO 2014

Graduate enrollment by year	UMass	US Public 4-Year	US Private Non-Profit 4-Year	MA Private Non-Profit 4-Year	N.E. state universities not incl UMass
2005	12,998	1,320,949	1,048,534	88,049	20,585
2006	13,595	1,329,897	1,081,668	91,228	20,099
2007	14,106	1,351,193	1,119,898	94,502	20,407
2008	14,422	1,378,558	1,144,794	96,927	20,108
2009	15,479	1,422,630	1,193,132	101,167	20,924
2010	16,349	1,436,737	1,226,834	103,276	20,973
2011	16,683	1,420,572	1,237,762	104,493	20,527
2012	16,873	1,405,821	1,237,653	107,119	20,022
2013	17,270	1,407,625	1,246,844	106,300	19,578
2014	17,395	1,421,099	1,256,539	105,814	19,558
Percentage of Total Enrollment					
2005	Base	Base	Base	Base	Base
2006	4.6%	0.7%	3.2%	3.6%	-2.4%
2007	8.5%	2.3%	6.8%	7.3%	-0.9%
2008	11.0%	4.4%	9.2%	10.1%	-2.3%
2009	19.1%	7.7%	13.8%	14.9%	1.6%
2010	25.8%	8.8%	17.0%	17.3%	1.9%
2011	28.4%	7.5%	18.0%	18.7%	-0.3%
2012	29.8%	6.4%	18.0%	21.7%	-2.7%
2013	32.9%	6.6%	18.9%	20.7%	-4.9%
2014	33.8%	7.6%	19.8%	20.2%	-5.0%

**TABLE FOR FIGURE 4. UNDERGRADUATE ENROLLMENT AT UMASS, OTHER NEW ENGLAND STATE UNIVERSITIES
2005 TO 2014**

Undergrads	UMass	UConn	UMaine	URI	UNH	UVM	N.E. state universities not incl UMass
2005	44,180	20,525	29,616	11,546	12,509	9,859	84,055
2006	45,343	20,784	29,730	11,875	12,964	10,082	85,435
2007	46,928	20,846	29,053	12,516	13,028	10,504	85,947
2008	48,705	21,372	28,223	12,793	13,146	10,937	86,471
2009	50,444	21,496	27,999	13,233	13,530	11,382	87,640
2010	51,966	21,881	28,219	13,093	13,454	11,593	88,240
2011	52,987	22,472	26,815	13,219	13,538	11,482	87,526
2012	53,901	22,301	26,760	13,376	13,637	11,211	87,285
2013	54,671	22,595	26,315	13,354	13,349	10,912	86,525
2014	55,389	22,973	25,679	13,589	13,606	10,992	86,839
2005	Base	Base	Base	Base	Base	Base	Base
2006	2.6%	1.3%	0.4%	2.8%	3.6%	2.3%	1.6%
2007	6.2%	1.6%	-1.9%	8.4%	4.1%	6.5%	2.3%
2008	10.2%	4.1%	-4.7%	10.8%	5.1%	10.9%	2.9%
2009	14.2%	4.7%	-5.5%	14.6%	8.2%	15.4%	4.3%
2010	17.6%	6.6%	-4.7%	13.4%	7.6%	17.6%	5.0%
2011	19.9%	9.5%	-9.5%	14.5%	8.2%	16.5%	4.1%
2012	22.0%	8.7%	-9.6%	15.8%	9.0%	13.7%	3.8%
2013	23.7%	10.1%	-11.1%	15.7%	6.7%	10.7%	2.9%
2014	25.4%	11.9%	-13.3%	17.7%	8.8%	11.5%	3.3%

TABLE FOR FIGURE 5. GRADUATE ENROLLMENT AT UMASS, OTHER NEW ENGLAND STATE FLAGSHIP UNIVERSITIES 2005 TO 2014

Graduate	UMass	UConn	UMaine	URI	UNH	UVM	N.E. state universities not incl UMass
2005	12,998	7,073	4,629	3,549	3,596	1,738	20,585
2006	13,595	7,210	4,480	3,187	3,434	1,788	20,099
2007	14,106	7,344	4,659	3,134	3,535	1,735	20,407
2008	14,422	7,508	4,335	3,111	3,291	1,863	20,108
2009	15,479	8,021	4,491	3,156	3,247	2,009	20,924
2010	16,349	8,153	4,476	3,201	3,182	1,961	20,973
2011	16,683	8,053	4,334	3,098	3,046	1,996	20,527
2012	16,873	7,955	4,249	3,075	2,856	1,887	20,022
2013	17,270	7,879	4,050	3,033	2,805	1,811	19,578
2014	17,395	8,146	3,934	2,982	2,632	1,864	19,558
Change from 2005							
2005	Base	Base	Base	Base	Base	Base	Base
2006	4.6%	1.9%	-3.2%	-10.2%	-4.5%	2.9%	-2.4%
2007	8.5%	3.8%	0.6%	-11.7%	-1.7%	-0.2%	-0.9%
2008	11.0%	6.2%	-6.4%	-12.3%	-8.5%	7.2%	-2.3%
2009	19.1%	13.4%	-3.0%	-11.1%	-9.7%	15.6%	1.6%
2010	25.8%	15.3%	-3.3%	-9.8%	-11.5%	12.8%	1.9%
2011	28.4%	13.9%	-6.4%	-12.7%	-15.3%	14.8%	-0.3%
2012	29.8%	12.5%	-8.2%	-13.4%	-20.6%	8.6%	-2.7%
2013	32.9%	11.4%	-12.5%	-14.5%	-22.0%	4.2%	-4.9%
2014	33.8%	15.2%	-15.0%	-16.0%	-26.8%	7.2%	-5.0%

**TABLE FOR FIGURE 6. CUMULATIVE TOTAL ENROLLMENT AT UMASS CAMPUSES
2005 TO 2014**

Campus - total students	UMass Amherst	UMass Lowell	UMass Boston	UMass Dartmouth	UMass Medical School Worcester	UMass total
2005	25,093	11,213	9,988	9,876	1,008	57,178
2006	25,593	11,764	10,376	10,185	1,020	58,938
2007	25,873	12,304	11,161	10,683	1,013	61,034
2008	26,359	13,345	11,651	10,747	1,025	63,127
2009	27,016	14,419	12,361	11,036	1,091	65,923
2010	27,569	15,162	13,251	11,175	1,158	68,315
2011	28,084	15,604	13,511	11,282	1,189	69,670
2012	28,236	16,037	13,772	11,569	1,160	70,774
2013	28,518	16,645	13,982	11,635	1,161	71,941
2014	28,635	17,039	14,357	11,650	1,103	72,784
Increase	14.1%	52.0%	43.7%	18.0%	9.4%	27.3%
Percentage Increase						
2005	Base	Base	Base	Base	Base	Base
2006	2.0%	4.9%	3.9%	3.1%	1.2%	3.1%
2007	3.1%	9.7%	11.7%	8.2%	0.5%	6.7%
2008	5.0%	19.0%	16.6%	8.8%	1.7%	10.4%
2009	7.7%	28.6%	23.8%	11.7%	8.2%	15.3%
2010	9.9%	35.2%	32.7%	13.2%	14.9%	19.5%
2011	11.9%	39.2%	35.3%	14.2%	18.0%	21.8%
2012	12.5%	43.0%	37.9%	17.1%	15.1%	23.8%
2013	13.6%	48.4%	40.4%	17.8%	15.2%	25.8%
2014	14.1%	52.0%	43.7%	18.0%	9.4%	27.3%

TABLE FOR FIGURE 7. CUMULATIVE UNDERGRADUATE ENROLLMENT GROWTH AT UMASS CAMPUSES 2005 TO 2014

Campus - undergraduates	UMass Amherst	UMass Lowell	UMass Boston	UMass Dartmouth	UMass total
2005	19,394	8,309	8,958	7,519	44,180
2006	19,823	8,648	9,246	7,626	45,343
2007	20,114	8,879	10,008	7,927	46,928
2008	20,539	9,706	10,478	7,982	48,705
2009	20,873	10,548	11,041	7,982	50,444
2010	21,373	11,276	11,568	7,749	51,966
2011	21,812	11,729	11,866	7,580	52,987
2012	21,928	12,287	12,124	7,562	53,901
2013	22,134	12,734	12,366	7,437	54,671
2014	22,252	12,983	12,700	7,454	55,389
Increase	14.7%	56.3%	41.8%	-0.9%	25.4%
Annual Growth Rates					
2005	Base	Base	Base	Base	Base
2006	2.2%	4.1%	3.2%	1.4%	2.6%
2007	3.7%	6.9%	11.7%	5.4%	6.2%
2008	5.9%	16.8%	17.0%	6.2%	10.2%
2009	7.6%	26.9%	23.3%	6.2%	14.2%
2010	10.2%	35.7%	29.1%	3.1%	17.6%
2011	12.5%	41.2%	32.5%	0.8%	19.9%
2012	13.1%	47.9%	35.3%	0.6%	22.0%
2013	14.1%	53.3%	38.0%	-1.1%	23.7%
2014	14.7%	56.3%	41.8%	-0.9%	25.4%

TABLE FOR FIGURE 8. CUMULATIVE GRADUATE ENROLLMENT GROWTH AT UMASS CAMPUSES 2005 TO 2014

Campus - graduate students	UMass Amherst	UMass Lowell	UMass Boston	UMass Dartmouth	UMass Medical School Worcester	UMass total
2005	5,699	2,904	1,030	2,357	1,008	12,998
2006	5,770	3,116	1,130	2,559	1,020	13,595
2007	5,759	3,425	1,153	2,756	1,013	14,106
2008	5,820	3,639	1,173	2,765	1,025	14,422
2009	6,143	3,871	1,320	3,054	1,091	15,479
2010	6,196	3,886	1,683	3,426	1,158	16,349
2011	6,272	3,875	1,645	3,702	1,189	16,683
2012	6,308	3,750	1,648	4,007	1,160	16,873
2013	6,384	3,911	1,616	4,198	1,161	17,270
2014	6,383	4,056	1,657	4,196	1,103	17,395
Increase	12.0%	39.7%	60.9%	78.0%	9.4%	33.8%
Percentage of total enrollment						
2005	Base	Base	Base	Base	Base	Base
2006	1.2%	7.3%	9.7%	8.6%	1.2%	4.6%
2007	1.1%	17.9%	11.9%	16.9%	0.5%	8.5%
2008	2.1%	25.3%	13.9%	17.3%	1.7%	11.0%
2009	7.8%	33.3%	28.2%	29.6%	8.2%	19.1%
2010	8.7%	33.8%	63.4%	45.4%	14.9%	25.8%
2011	10.1%	33.4%	59.7%	57.1%	18.0%	28.4%
2012	10.7%	29.1%	60.0%	70.0%	15.1%	29.8%
2013	12.0%	34.7%	56.9%	78.1%	15.2%	32.9%
2014	12.0%	39.7%	60.9%	78.0%	9.4%	33.8%

**TABLE FOR FIGURES 9-14. GPA, SAT SCORES, PERCENTILE RANK-IN-CLASS OF ADMITTED FRESHMAN
UMASS AMHERST FALL 2005-2014**

UMass Amherst	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
AVG GPA	3.38	3.46	3.48	3.56	3.6	3.61	3.64	3.66	3.73	3.78
% => 3.75	23.0%	25.8%	26.7%	30.4%	32.9%	34.1%	37.4%	40.6%	46.2%	53.5%
% 3.5 to 3.74	19.0%	22.7%	23.6%	26.3%	28.5%	29.5%	29.0%	29.3%	31.6%	27.7%
% 3.25-3.49	16.6%	18.7%	18.1%	20.6%	23.8%	23.8%	21.1%	18.1%	15.6%	12.8%
% 3.0-3.24	24.0%	25.0%	25.8%	18.9%	12.6%	10.7%	11.2%	10.8%	5.2%	4.9%
% < 3.0	17.5%	7.8%	5.9%	3.7%	2.3%	1.9%	1.2%	1.2%	1.4%	1.1%
TOP TEN % rank-in-class	19.0%	23.0%	22.0%	25.0%	27.0%	25.0%	26.0%	27.0%	28.0%	33.0%
TOP QUARTER rank-in-class	51.0%	58.0%	58.0%	65.0%	67.0%	65.0%	67.0%	66.0%	69.0%	72.0%
Critical reading 25th percentile	510	510	510	510	520	520	530	530	540	550
Critical Reading 75th percentile	620	610	610	620	630	620	630	630	640	640
Math 25th percentile	520	530	520	540	540	540	560	560	570	570
Math 75th percentile	630	640	630	640	650	640	650	660	670	670

TABLE FOR FIGURES 15 AND 16. HIGH SCHOOL GRADUATES 2005-06 THROUGH 2008-09 (ACTUAL), 2009-10 THROUGH 2027-28 (PROJECTED) WICHE

Year	MA	US	Northeast	South	Midwest	West
1996-97	57,968	2,612,740	502,818	861,695	663,633	584,594
1997-98	59,748	2,705,118	506,952	898,985	688,924	610,257
1998-99	61,097	2,759,969	513,938	917,905	696,466	631,660
1999-00	62,609	2,832,887	531,729	944,818	698,907	657,433
2000-01	64,079	2,850,006	536,680	950,253	696,343	666,730
2001-02	65,478	2,910,675	544,118	976,790	704,729	685,038
2002-03	66,712	3,019,234	563,470	1,020,990	726,939	707,835
2003-04	68,803	3,059,930	576,523	1,038,523	734,257	710,628
2004-05	70,607	3,095,418	586,806	1,045,769	726,502	736,341
2005-06	72,283	3,115,511	605,543	1,056,943	733,592	719,433
2006-07	74,338	3,196,104	622,114	1,082,933	753,435	737,622
2007-08	76,050	3,315,437	639,941	1,133,534	772,095	769,867
2008-09	75,888	3,347,948	641,902	1,166,072	767,652	772,322
2009-10	75,177	3,386,863	643,128	1,174,711	773,082	795,074
2010-11	74,770	3,409,160	643,523	1,189,140	766,622	807,812
2011-12	74,138	3,353,070	635,342	1,175,071	754,240	786,798
2012-13	73,488	3,315,923	624,097	1,176,092	742,413	771,612
2013-14	771,612	3,219,207	608,401	1,142,765	716,827	748,487
2014-15	71,100	3,247,997	605,514	1,159,270	717,046	762,189
2015-16	71,880	3,265,460	606,548	1,174,961	719,970	759,679
2016-17	70,659	3,286,964	605,034	1,193,897	718,240	764,289
2017-18	70,611	3,323,656	608,422	1,217,304	724,400	767,640
2018-19	70,219	3,315,636	604,615	1,220,506	721,964	762,303
2019-20	69,191	3,284,823	599,484	1,209,949	708,585	760,438
2020-21	69,724	3,302,813	606,318	1,211,576	708,395	770,466
2021-22	69,688	3,329,277	609,470	1,218,098	715,927	778,492
2022-23	67,178	3,368,153	596,639	1,252,677	714,713	794,863
2023-24	67,719	3,473,018	604,379	1,306,702	726,827	824,180

TABLE FOR FIGURES 15 AND 16 (CONTINUED)

Year	MA	US	Northeast	South	Midwest	West
2024-25	67,999	3,508,504	609,851	1,327,725	727,711	831,969
2025-26	67,345	3,448,871	600,107	1,305,730	714,776	817,201
2026-27	65,686	3,355,606	589,996	1,273,501	697,688	784,858
2027-28	63,691	3,251,020	576,215	1,230,247	676,014	759,854
Change from previous year						
2015-16	Base	Base	Base	Base	Base	Base
2016-17	-1.7%	0.7%	-0.2%	1.6%	-0.2%	0.6%
2017-18	-1.8%	1.8%	0.3%	3.6%	0.6%	1.0%
2018-19	-2.3%	1.5%	-0.3%	3.9%	0.3%	0.3%
2019-20	-3.7%	0.6%	-1.2%	3.0%	-1.6%	0.1%
2020-21	-3.0%	1.1%	0.0%	3.1%	-1.6%	1.4%
2021-22	-3.0%	2.0%	0.5%	3.7%	-0.6%	2.5%
2022-23	-6.5%	3.1%	-1.6%	6.6%	-0.7%	4.6%
2023-24	-5.8%	6.4%	-0.4%	11.2%	1.0%	8.5%
2024-25	-5.4%	7.4%	0.5%	13.0%	1.1%	9.5%
2025-26	-6.3%	5.6%	-1.1%	11.1%	-0.7%	7.6%
2026-27	-8.6%	2.8%	-2.7%	8.4%	-3.1%	3.3%
2027-28	-11.4%	-0.4%	-5.0%	4.7%	-6.1%	0.0%

TABLE FOR FIGURE 17. PROJECTED HIGH SCHOOL GRADUATES BY PUBLIC, PRIVATE, COMBINED MA 2015-16 THROUGH 2027-28 SOURCE: WICHE 2012

Year	Public	Private	Total
2015-16	62,638	9,242	71,880
2016-17	61,899	8,760	70,659
2017-18	62,179	8,432	70,611
2018-19	62,145	8,074	70,219
2019-20	61,612	7,579	69,191
2020-21	62,220	7,505	69,724
2021-22	61,981	7,707	69,688
2022-23	59,658	7,520	67,178
2023-24	60,190	7,529	67,719
2024-25	60,489	7,509	67,999
2025-26	59,911	7,433	67,345
2026-27	58,410	7,276	65,686
2027-28	56,628	7,063	63,691
Year	Public	Private	Total
2015-16	Base	Base	Base
2016-17	-1.20%	-5.20%	-5.20%
2017-18	-0.70%	-8.80%	-1.80%
2018-19	-0.80%	-12.60%	-2.30%
2019-20	-1.60%	-18.00%	-3.70%
2020-21	-0.70%	-18.80%	-3.00%
2021-22	-1.00%	-16.60%	-3.00%
2022-23	-4.80%	-18.60%	-6.50%
2023-24	-3.90%	-18.50%	-5.80%
2024-25	-3.40%	-18.70%	-5.40%
2025-26	-4.40%	-19.60%	-6.30%
2026-27	-6.80%	-21.30%	-8.60%
2027-28	-9.60%	23.60%	-11.40%

TABLE FOR FIGURE 18. PROJECTED MASSACHUSETTS PUBLIC SCHOOL GRADUATES BY RACE/ETHNICITY

Year	Total	American Indian/ Alaskan Native	Asian/Pacific Islander	Black/non- Hispanic	Hispanic	White/non- Hispanic
2015-16	61,870	110	3,870	4,920	8,010	44,940
2016-17	61,050	120	3,870	4,870	8,370	43,820
2017-18	61,470	100	4,290	4,820	8,860	43,400
2018-19	61,400	100	4,470	4,900	9,060	42,870
2019-20	60,850	100	4,580	4,810	9,500	41,870
2020-21	61,350	100	4,880	4,880	9,880	41,620
2021-22	61,090	100	4,890	4,810	10,400	40,910
2022-23	58,770	110	4,760	4,900	10,180	38,820
2023-24	59,450	110	4,960	5,170	10,720	38,480
2024-25	59,760	110	5,220	5,280	10,910	38,240
2025-26	59,280	130	5,280	5,220	11,040	37,620
2026-27	57,810	100	5,310	5,240	11,060	36,090
2027-28	56,120	90	5,230	5,130	10,660	35,020
Year	Total	American Indian/ Alaskan Native	Asian/Pacific Islander	Black/non- Hispanic	Hispanic	White/non- Hispanic
2015-16	Base	Base	Base	Base	Base	Base
2016-17	-1.30%	9.10%	0.00%	-1.00%	4.50%	-2.50%
2017-18	-0.60%	-9.10%	10.90%	-2.00%	10.60%	-3.40%
2018-19	-0.80%	-9.10%	15.50%	-0.40%	13.10%	-4.60%
2019-20	-1.60%	-9.10%	18.30%	-2.20%	18.60%	-6.80%
2020-21	-0.80%	-9.10%	26.10%	-0.80%	23.30%	-7.40%
2021-22	-1.30%	-9.10%	26.40%	-2.20%	29.80%	-9.00%
2022-23	-5.00%	0.00%	23.00%	-0.40%	27.10%	-13.60%
2023-24	-3.90%	0.00%	28.20%	5.10%	33.80%	-14.40%
2024-25	-3.40%	0.00%	34.90%	7.30%	36.20%	-14.90%
2025-26	-4.20%	18.20%	36.40%	6.10%	37.80%	-16.30%
2026-27	-6.60%	-9.10%	37.20%	6.50%	38.10%	-19.70%
2027-28	-9.30%	-18.20%	35.10%	4.30%	33.10%	-22.10%



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