

# Indicators of Higher Education Attainment in Maine

College as a **Right and Responsibility** for all Maine People

August 2008



MAINE COMPACT FOR HIGHER EDUCATION



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College as a **Right and Responsibility** for all Maine People

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August 2008

The purpose of this report is to assess the extent to which we are achieving the Compact's goal of 40,000 additional degree-holders above projections by 2020, and to provide a framework to inform the decisions of policymakers, business people, community leaders, and educators. The Compact has produced this report annually since August 2005. We tried to select indicators for which data is available annually and regionally for comparison purposes. The Mitchell Institute has prepared the report each year for the Compact. The Nellie Mae Education Foundation and the Compact provided financial support for the initial research. Founded in 2003 by the Maine Development Foundation and the Maine Community Foundation, the Compact is a non-profit organization whose mission is to dramatically increase postsecondary education attainment. We encourage your reactions and suggestions. The full report is on the Compact's website, [www.collegeforME.com](http://www.collegeforME.com). For more information, contact Henry Bourgeois, Compact Executive Director, at [henryb@mdf.org](mailto:henryb@mdf.org) or 207.347.8638.



MAINE COMPACT FOR HIGHER EDUCATION

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# SUMMARY OF INDICATORS

## I. DO MORE MAINE WORKING-AGE PEOPLE HAVE DEGREES?

**Indicator 1: Working-age adults with college degrees.** In 2006, 37% of Maine adults had a college degree, compared with 46% in New England. There has been no change in either estimate since 2004. In 2000, the proportion of working-age adults with a college degree ranged from 20% in Somerset County to 47% in Cumberland County. The Compact's goal is to match New England's higher education attainment, projected to grow to 56%, by 2020.

## II. DO MORE MAINE PEOPLE VALUE POSTSECONDARY EDUCATION?

**Indicator 2: Education level needed for success.** 78% of Maine adults believe that today's high school students will need at least a two-year college degree to be successful, while only 26% believe that this was true when their generation was in high school.

**Indicator 3: All students college-ready.** 44% of Maine high school educators and 21% of college administrators agree that "all students are capable of graduating from high school ready to go to a two- or four-year college." Among adults in the general population, 34% agree with this statement.

## III. ARE MORE MAINE PEOPLE READY FOR POSTSECONDARY EDUCATION?

**Indicator 4: Student performance on assessment tests.** In 2007-2008, the majority of Maine 4<sup>th</sup>- and 8<sup>th</sup>-graders met or exceeded Maine Educational Assessment standards in math, reading, and science. The proportion of 8<sup>th</sup>-graders meeting or exceeding the standards has improved in all areas over the past three years. Maine 4<sup>th</sup>- and 8<sup>th</sup>-graders score close to the New England average on national assessment tests, but Maine 11<sup>th</sup>-graders who take the PSAT score significantly lower than the New England average.

**Indicator 5: Middle and high school math courses.** About 30% of Maine 8<sup>th</sup>-graders are on an accelerated math track (taking Algebra 1 or higher), up five percentage points from 2003 to 2005. This compares to 39% in New England, where the measure increased by nine percentage points from 2003 to 2005.

**Indicator 6: Advanced Placement courses and exams.** The proportion of Maine high school graduates who had taken at least one AP exam increased from 15% of the class of 2000 to 29% of the class of 2007. In New England, 16% of the class of 2000 and 25% of the class of 2007 took an AP exam.

**Indicator 7: Early college courses.** Nearly three-quarters (73%) of Maine's public high schools report that their students can take college courses for dual high school and college credit. Participation in early college has more than doubled statewide since 2005, to roughly 2,200 courses taken statewide in 2007-2008.

**Indicator 8: High school completion.** Maine's on-time high school graduation rate increased from 74% in 2000 to 78% in 2006, and is slightly higher than New England's (now 76%). High school graduation rates in Maine's counties range from 69% in Oxford to just over 90% in Lincoln.

**Indicator 9: Remedial college courses.** Nationally, about three-quarters of degree-granting colleges offer remedial courses. In both 1995 and 2000, 28% of U.S. entering college freshmen took at least one remedial course. In 2004, 36% of University of Maine students and 37% of Maine community college students took at least one remedial course.

## IV. ARE MORE MAINE PEOPLE ENROLLING IN POSTSECONDARY EDUCATION AND GRADUATING?

**Indicator 10: Recent high school graduates entering college: intentions and enrollment.** Enrolling in college within one year after high school graduation is less common in Maine than in New England, and it dropped from 62% of the graduating classes of 2001 through 2003 to 59% of 2007 graduates. This is in spite of an increase in the proportion of Maine high school seniors reporting that they intended to enroll in college, from 64% in 2000 to 70% in 2005. Recent high school graduates from Southern Maine are more likely than those from the other regions to enroll in college.

**Indicator 11: Adults enrolled in postsecondary education.** The proportion of Maine adults ages 25-44 who are enrolled part-time in college grew from 5.3% in 2000 to 6.0% in 2004. The New England proportion remained stable at 5.0% during those years.

**Indicator 12: Total college enrollment.** Between 1995 and 2007, total enrollment in Maine postsecondary institutions grew by nearly 20%, from 56,500 to more than 67,000 students. Just over one-half of college students in Maine are enrolled in the University of Maine system. The share of students enrolled in Maine community colleges was 21% in 2007, up from 15% in 2001.

**Indicator 13: Degree completion.** Maine postsecondary institutions awarded more than 10,800 degrees in 2006, a 20% increase since 1996. The graduation rate at Maine's community colleges is higher than the New England average; 31% of students in Maine community colleges complete an associate degree within three years, compared with an 18% New England average.

## **V. IS MAINE POSTSECONDARY EDUCATION MORE AFFORDABLE?**

**Indicator 14: Cost of college.** The average increase in college costs from 1995 to 2005 was 43% in Maine and 52% in New England. College costs are more of a burden for Maine low-income families, however, compared with all of New England. Maine students from families with incomes in the lowest 40% of the population would have to pay 46% of their annual income to cover average net costs at community colleges and 54% at public four-year colleges.

**Indicator 15: State contribution to higher education.** As a percentage of total state expenditures, Maine's contribution to higher education—\$715.2 million or 9.1% in 2006—lower than the New England and U.S. averages of 9.7% and 10.4%, respectively.

**Indicator 16: State grant aid.** Maine provides nearly \$14 million annually in grant aid for college students, or about \$299 per full-time equivalent student in 2005-2006. The New England average (\$302) is slightly higher, and the national average is much higher, at about \$575 per FTE student.

**Indicator 17: Student borrowing.** The average Maine undergraduate takes out nearly \$3,500 each year in student loans. This figure includes all students, not just those who borrow. Maine students borrowed \$705 less, on average, than the average New England student in 2005-2006.

**Indicator 18: Employer support for education.** Two-thirds (67%) of employed Maine adults report that their employer would provide support if they decided to pursue additional education. Only 14% indicate that they are currently enrolled in some form of education or training.

## **VI. ARE MAINE'S PEOPLE, COMMUNITIES, AND ECONOMY BENEFITING?**

**Indicator 19: Earnings and income by education level.** Maine workers with bachelor's degrees earned 51% more on average in 2006 than those with only a high school diploma. Only workers with bachelor's and advanced degrees saw their average annual earning increase from 1999 to 2006. Per-capita income in Maine's counties ranges from \$14,119 in Washington to \$23,949 in York, and is strongly correlated with educational attainment among working-age adults.

**Indicator 20: Unemployment by education level.** Average unemployment among Maine workers with only a high school diploma was 5.3% in 2006, more than twice as high as the 2.3% average unemployment among workers with bachelor's degrees.

**Indicator 21: Other benefits of higher education.** Beyond the purely economic benefits, higher education attainment benefits individuals and communities in many ways. The proportions of adults reporting that their health is good, that they have ever volunteered for or through an organization, and that they voted in the November 2000 election increase significantly with each successive level of education.

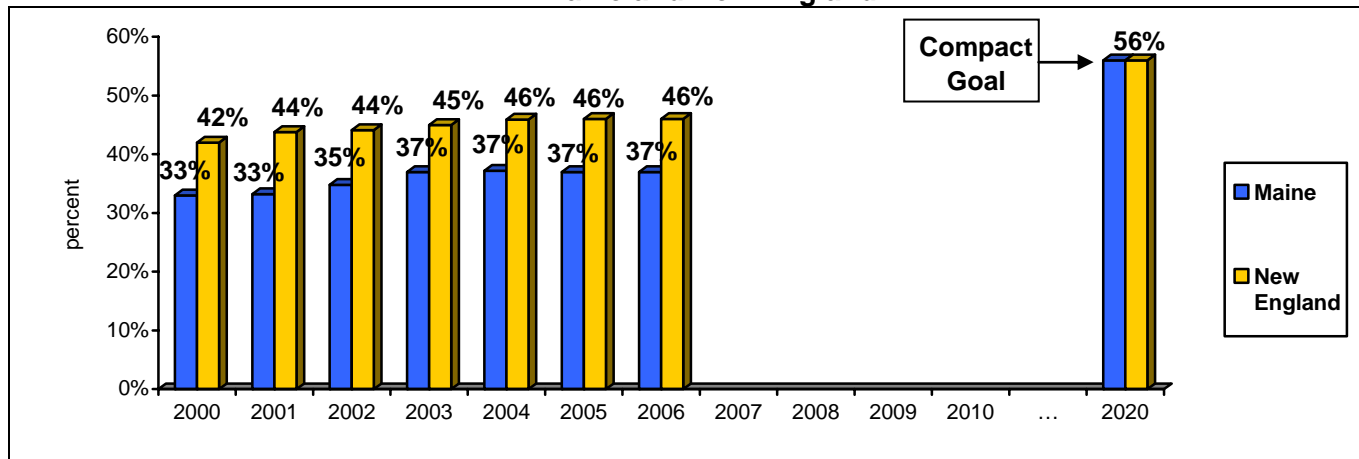
## I. DO MORE MAINE WORKING-AGE PEOPLE HAVE DEGREES?

In its 2004 Action Plan, *Greater Expectations*, the Compact announced that its goal is to make Maine people among the best-educated in America, and that the primary measure of progress toward that goal is the proportion of working-age adults in Maine with postsecondary education degrees. Specifically, the Compact's goal is to help Maine match educational attainment in New England by 2020.

### Indicator 1: Working-Age Adults with College Degrees

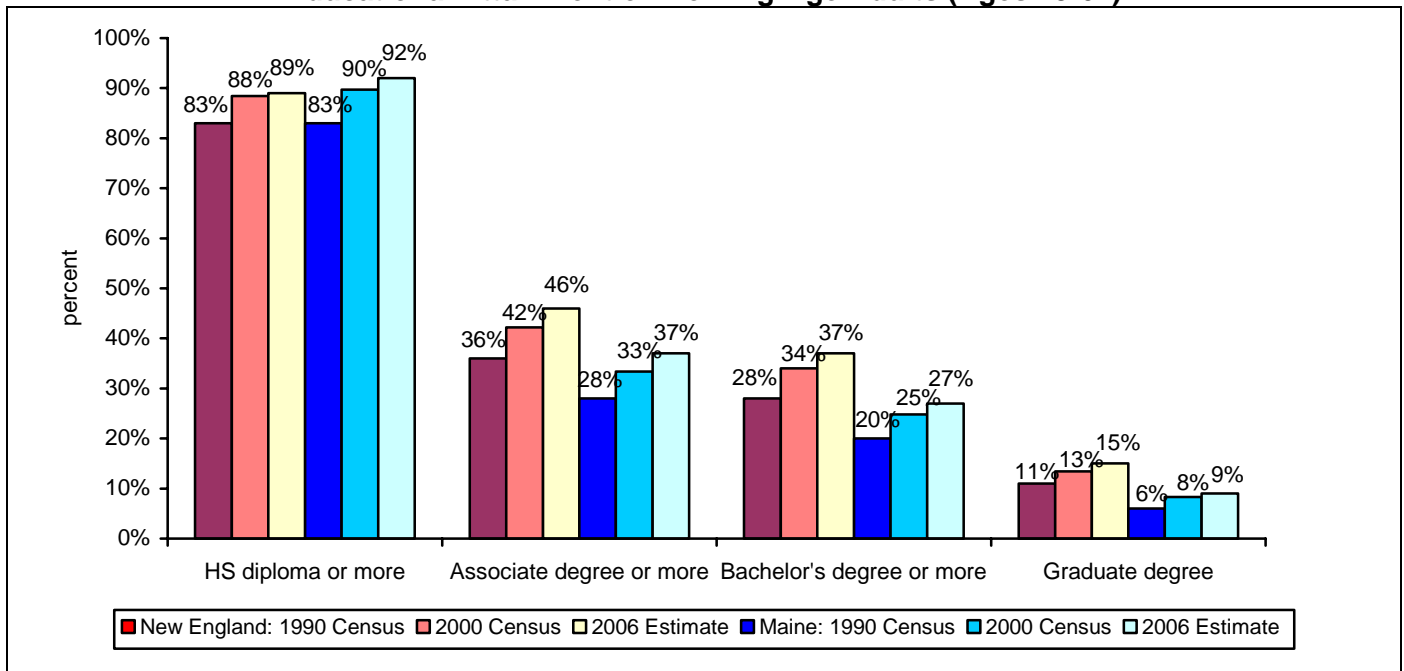
The most recent data indicate that 37% of Mainers ages 25-64 have an associate, bachelor's, or advanced degree, compared with 46% in New England. These figures have not changed since 2004. If the growth rate of the previous decade continues, those proportions will increase to 52% and 56%, respectively, by 2020. In order for Maine to match the projected New England proportion of 56% of working-age adults with college degrees, we will need to produce and/or attract about 40,000 additional degree holders—above and beyond 120,000 additional degree holders that the state can expect with no special intervention—over the next 12 years.

Working-Age Adults with a College Degree  
Maine and New England

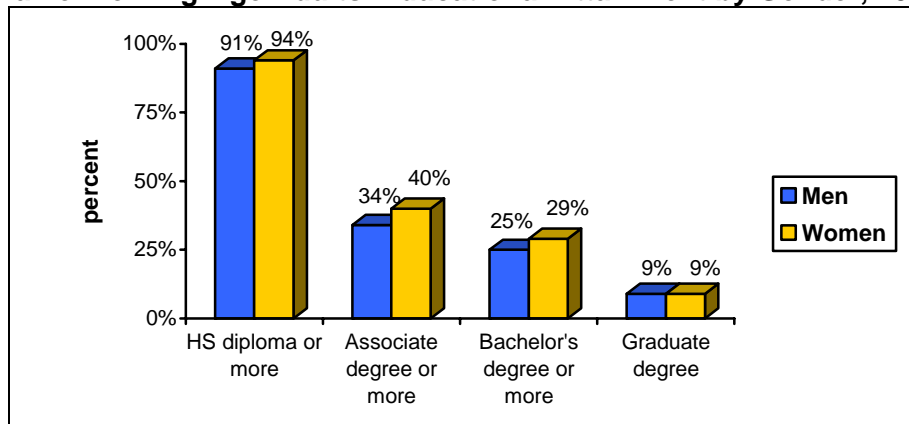


Maine compares favorably with New England in terms of its working-age population with high school diplomas, but our proportion of working-age adults with postsecondary degrees at all levels significantly lags behind the New England rates (see next chart). In fact, Maine has the lowest proportion of adults with postsecondary degrees of any New England state. Among working-age adults in Maine in 2006, 40% of women had earned an associate degree or more, compared with 34% of men.

### Educational Attainment of Working-Age Adults (Ages 25-64)



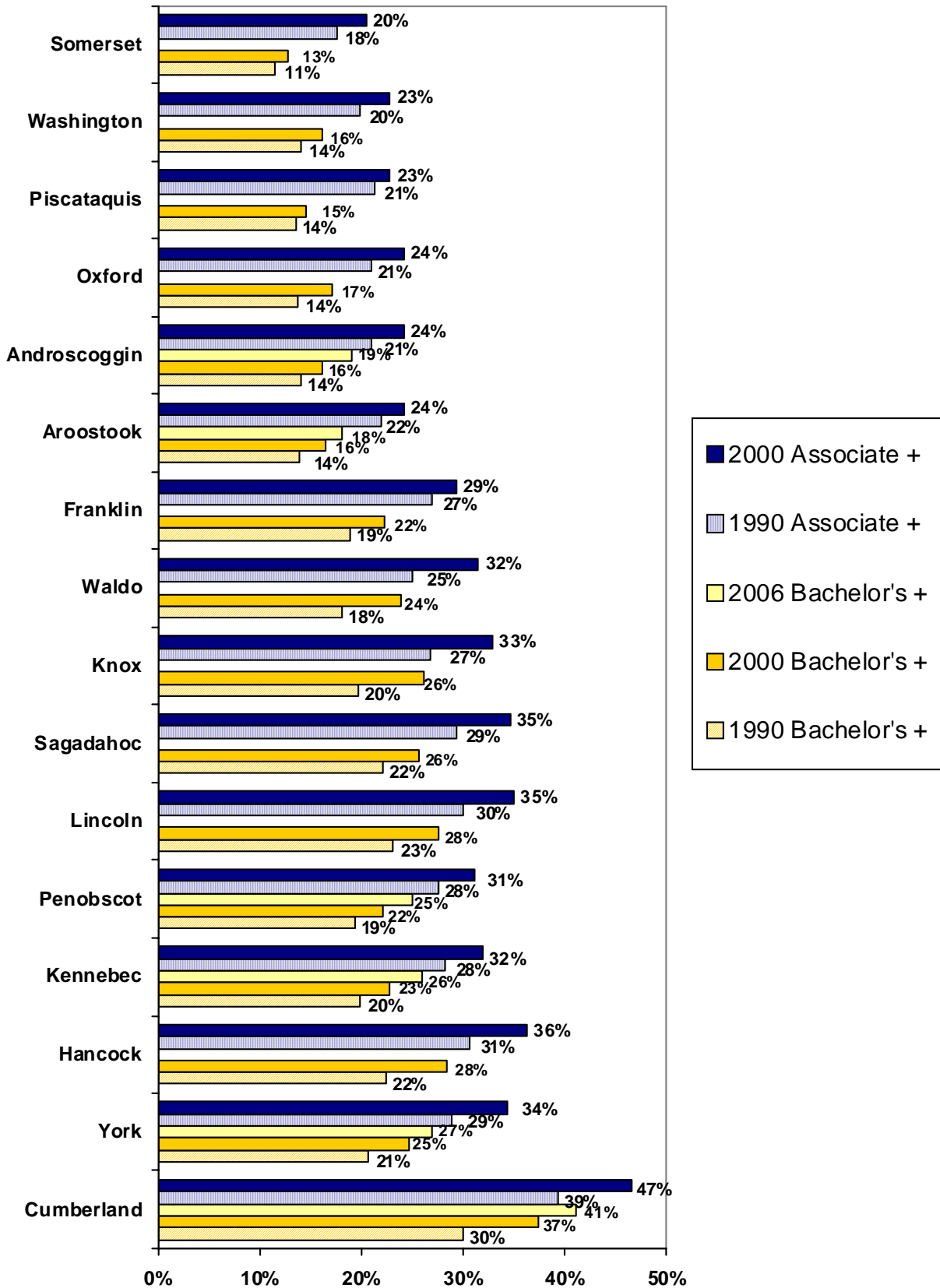
### Maine Working-Age Adults' Educational Attainment by Gender, 2006



### Regional Analysis:

Educational attainment in Maine's 16 counties varies widely. The proportion of working-age adults with a college degree (an associate degree or higher) in 2000 ranged from 20% in Somerset County to 47% in Cumberland County, as shown in the following chart. Only five counties—Cumberland, Hancock, Lincoln, Sagadahoc, and York—had higher proportions of college degree-holders than the state average in 2000. Most counties saw significant growth in postsecondary educational attainment between 1990 and 2000. In 2005, the Census Bureau expanded its annual American Community Survey to include some estimates for Androscoggin, Aroostook, Cumberland, Kennebec, Penobscot, and York counties. The following chart includes 1990 and 2000 estimates for all of Maine's counties as well as 2006 estimates (of the proportion with a bachelor's degree or more) for these six counties.

### Educational Attainment of the Working Age Population (Ages 25-64)



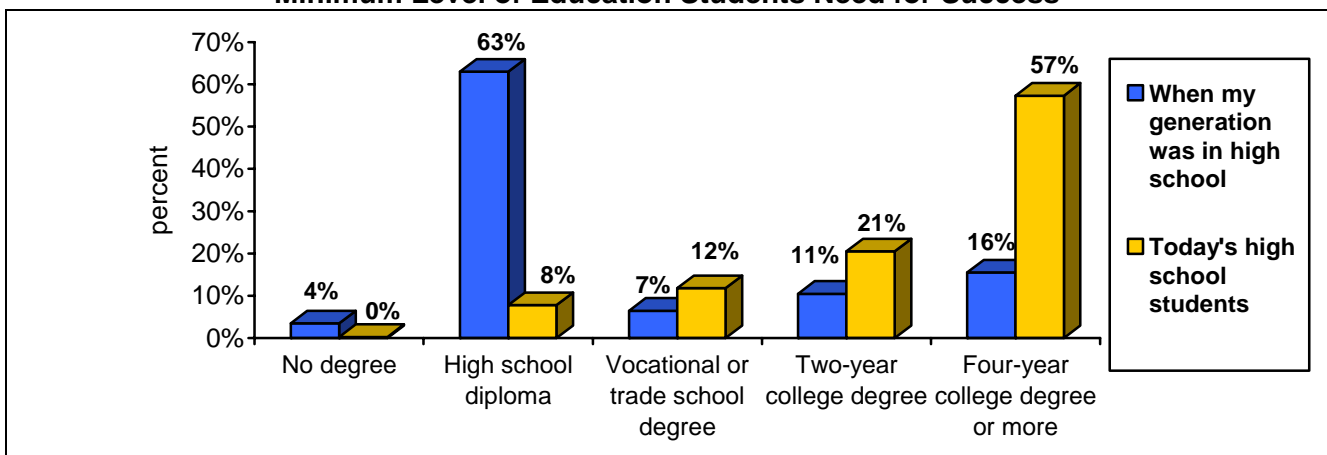
## II. DO MORE MAINE PEOPLE VALUE POSTSECONDARY EDUCATION?

Public opinion about the importance of college affects the higher education environment in terms of both the level of public investment in higher education and expectations about college passed on to students. Maine adults were surveyed recently about key attitudes toward college.

### Indicator 2: Education Level Needed for Success

One measure of the importance of college is the degree to which citizens believe a college education is essential for achieving success. A 2005 poll of 400 Maine adults asked, “What is the minimum level of education that students need to be successful?” Respondents were asked to answer the question for the past (“thinking back to when your generation was in high school”) and for today’s high school students. Responses indicate that there has been a dramatic shift in Mainers’ beliefs about the level of education needed for success. While only about one-quarter of respondents (26%) said that students of their generation needed at least a two-year college degree to be successful, more than three-quarters (78%) said that today’s high school students need at least a two-year college degree to be successful. More than one-half (57%) of Maine adults believe that, for today’s high school students, a four-year college degree is the minimum level of education needed for success. Conversely, while nearly two in three respondents (63%) indicated that a high school diploma was the minimum level of education needed for success when their generation was in high school, only 8% indicate that a high school diploma is adequate for success among today’s high school students. Most survey respondents (63%) were 45 or older, including 24% who were 65 or older. Younger respondents were more likely to say that at least a two-year college degree was needed for success when their generation was in high school, with 43% of those ages 18-34, 33% of 35- to 54-year-olds, and 13% of those over age 55, respectively, reporting this.

Minimum Level of Education Students Need for Success



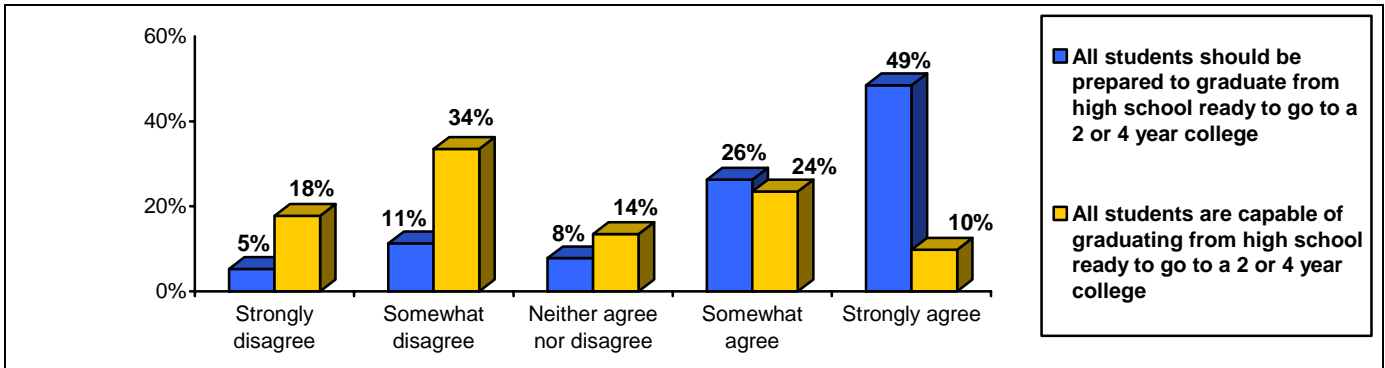
Survey respondents were also asked whether they think further education will be necessary to achieve their future career goals. Most respondents (60%) who are not retired and expect to be employed five years from now indicated that further education will be necessary to achieve their career goals.

### Indicator 3: All Students College-Ready

Another key indicator of public opinion on the importance of college is the extent to which citizens believe that all students should graduate from high school prepared for college. High school reform efforts in Maine are predicated on the idea that high schools should graduate every student college-ready, and recent surveys gauged whether public opinion supports this goal.

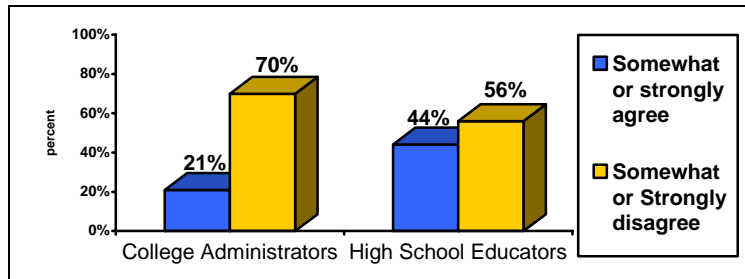
In 2005, three-quarters (75%) of Maine adults reported agreement that “all students should be prepared to graduate from high school ready to go to a two or four year college.” About one in nine respondents (11%) somewhat disagreed with the statement, and only one in twenty (5%) strongly disagreed. Only about one-third of Maine adults (34%), however, report agreement that “all students are capable of graduating from high school ready to go to a two or four year college,” as shown below.

**Agreement among Maine Adults that All Students Should be Prepared for College**



A 2007 survey asked a similar question of Maine college administrators and high school educators. One in five college administrators (21%) agreed that “all students are capable of graduating from high school ready for two- or four-year college.” More than twice as many high school educators (44%) agreed that all students are capable of graduating ready for college. For college administrators who disagreed, the primary reasons were inadequate academic preparation for college and some students’ lack of maturity. Among high school educators who disagreed, the main reasons were students’ lack of motivation for academic work in high school and lack of interest in attending college.

**“All students are capable of graduating from high school ready to go to a two- or four-year college.”**



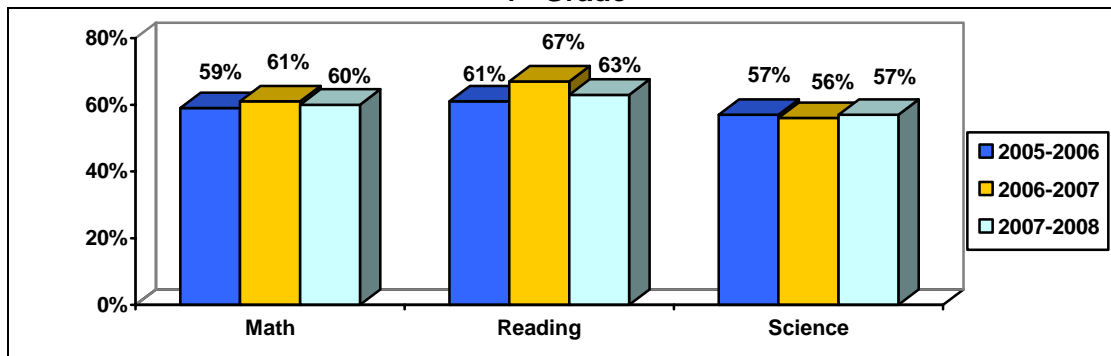
### III. ARE MORE MAINE PEOPLE READY FOR POSTSECONDARY EDUCATION?

There are many measures of readiness for college among current elementary and secondary students. We look at performance on assessment tests, which include the MEA for 4<sup>th</sup> and 8<sup>th</sup> grade students, and the PSAT and SAT for high school students. In addition, we consider the performance in courses in middle and high school, Advanced Placement and Early College courses in high school, and high school completion. Remedial college course-taking is an indicator of the preparedness of entering college students. Indicators of college readiness among adults are not included, for lack of data.

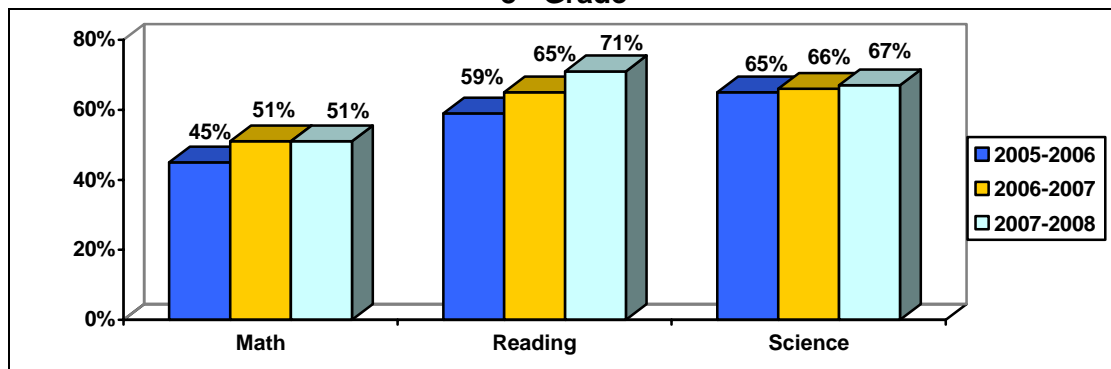
#### Indicator 4: Student Performance on Assessment Tests

Beginning in 1999, Maine Educational Assessment (MEA) tests were administered each year to all students in grades 4, 8, and 11. In 2006, the Maine Department of Education redesigned the MEA to better gauge student progress toward the *Maine Learning Results*, as recommended by the federal *No Child Left Behind Act*. Students are now tested in grades 3 through 8, and 11<sup>th</sup> graders now take the SAT rather than the MEA. The following charts show the proportions of 4<sup>th</sup>- and 8<sup>th</sup>-grade students who met or exceeded the new MEA standards in the past three academic years. In 2007-2008, the majority of students in both grades met or exceeded the standards in all three testing areas. In math, 60% of 4<sup>th</sup>-graders but only 51% of 8<sup>th</sup>-graders met or exceeded the standards in 2007-2008. The proportion of 8<sup>th</sup>-graders meeting or exceeding the standards has improved in all areas over the past three years.

Proportion of Maine Test-Takers Meeting or Exceeding MEA Standards:  
4<sup>th</sup> Grade



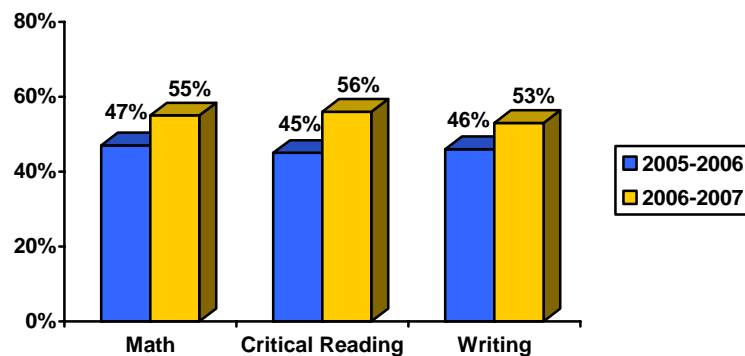
8<sup>th</sup> Grade



While the MEA is unique to Maine, the National Assessment of Educational Progress (NAEP) assesses what America’s students know and can do in various subject areas, and is also designed to give results for individual states. Representative samples of 4<sup>th</sup> and 8<sup>th</sup> grade students in each participating state are tested in several subject areas in alternating years. For the past five years, Maine students’ scores have been very close to the New England averages.

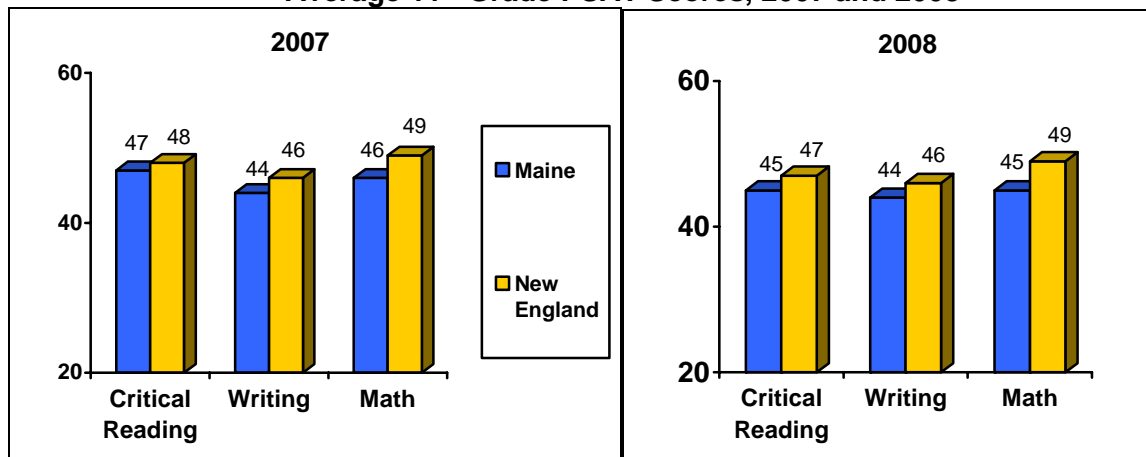
Beginning in 2006, the Maine Department of Education replaced the MEA for 11<sup>th</sup> graders with the SAT, a college readiness and aptitude test administered by the College Board. To meet or exceed standards on the math and critical reading portions of the SAT, students must score between 460 and 800. To meet or exceed standards on the writing portion of the exam, students must score between 450 and 800. In 2007, more than one-half of Maine 11<sup>th</sup>-graders met or exceeded the math, critical reading, and writing standards. Performance improved substantially over 2005-2006 in all three areas (see following chart).

**Proportion of Maine 11<sup>th</sup> Graders Meeting or Exceeding State SAT Standards**



The Preliminary SAT (PSAT) gives a good indication of how Maine high school students measure up to average achievement in New England and the U.S. All 10<sup>th</sup> graders in Maine have the opportunity to take the PSAT, and in 2007, 97% of 10<sup>th</sup> graders and 80% of 11<sup>th</sup> graders took the exam. The following chart compares the scores of Maine’s 11<sup>th</sup> graders to those of college-bound 11<sup>th</sup> graders in New England. The average PSAT scores for Maine 11<sup>th</sup> graders are slightly lower than the New England averages in reading, writing, and math.

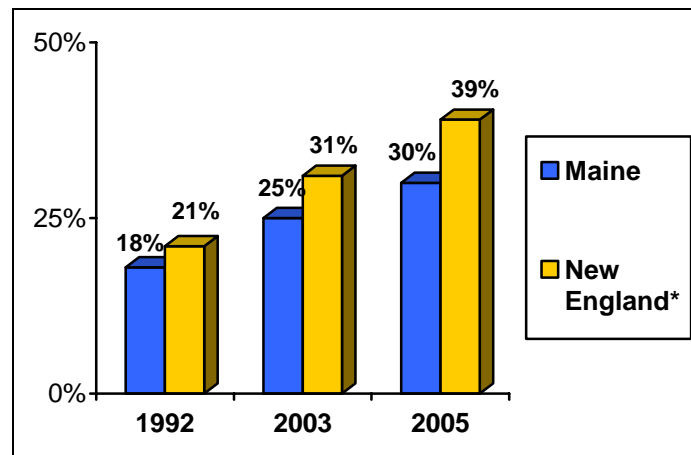
**Average 11<sup>th</sup> Grade PSAT Scores, 2007 and 2008**



## Indicator 5: Middle and High School Math Courses

Students' courses in middle and high school are a vital component of preparation for college. Completion of math courses in particular is an important indicator of the likelihood that students will continue on to college after high school. Compared with New England, Maine students are less likely to be in on accelerated math track, according to data from NAEP. Three in ten Maine 8<sup>th</sup>-graders (30%) reported that they were taking Algebra 1 in 2005, compared with 39% of their New England peers, as shown in the following chart. Further, the proportion of 8<sup>th</sup>-graders in New England taking Algebra 1 grew by eight percentage points, or 26%, from 2003 to 2005, compared with an increase of only five percentage points, or 20%, in Maine.

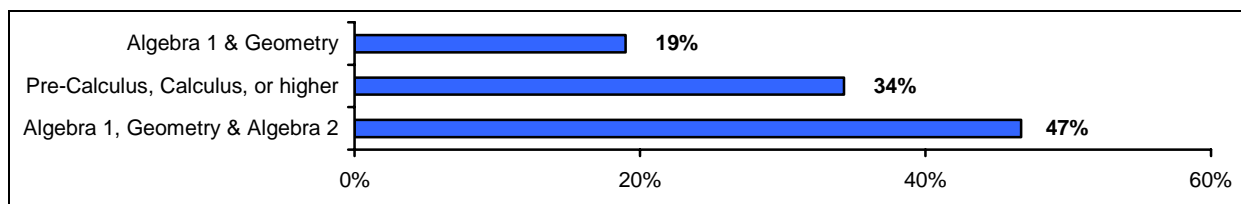
**Proportion of 8<sup>th</sup>-Graders Taking Algebra 1**



\*unweighted average

Each year, several background questions are asked on the Maine Educational Assessment (MEA) tests. In 2004, 11<sup>th</sup> graders answered two MEA questions about their courses. One question was designed to identify students who were on a college track, asking whether students will complete all of the following courses by the time they graduate: a course in chemistry or physics; geometry and Algebra 2; and at least two years of a foreign language. 71% of respondents said that they would complete all of the courses, while 29% did not expect to complete all of them. Another question asked which math courses students would complete. Nearly one in five 11<sup>th</sup> graders (19%) did not expect to complete Algebra 2 while in high school. Nearly one-half (47%) expected Algebra 2 to be their highest math course, and just over one-third (34%) expect to complete a math course beyond Algebra 2. National research shows that finishing a math course beyond Algebra 2 (e.g., trigonometry or pre-calculus) more than doubles the odds that a student who enters college will earn a bachelor's degree.

**Math Courses Maine 11th Graders Expected to Complete before Graduation, 2004**

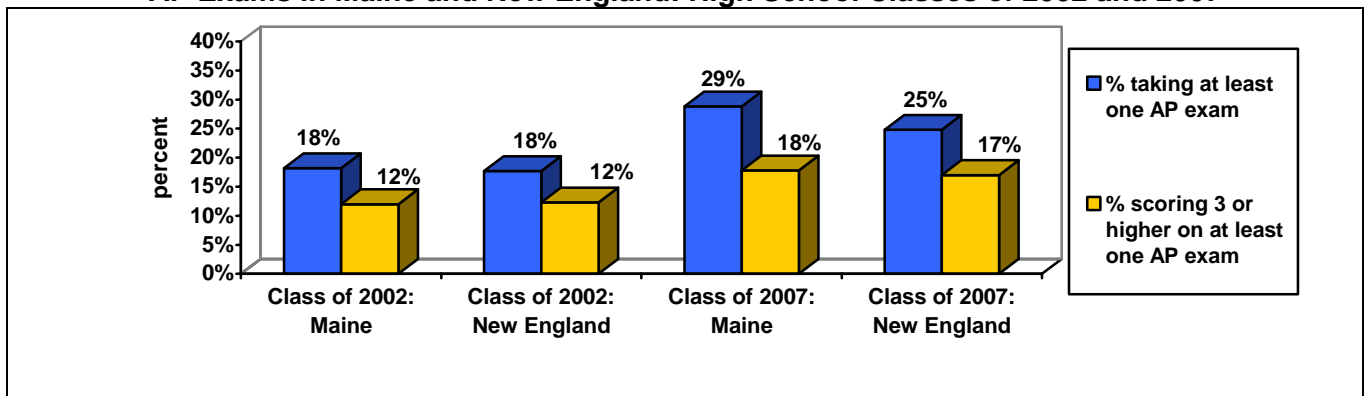


## Indicator 6: Advanced Placement Courses and Exams

Advanced Placement (AP) courses are high school courses designed to provide college-level learning experiences. A rigorous academic experience in high school is the most powerful predictor of college degree completion, and participation and success in AP courses is one measure of the level of academic rigor to which Maine high school students have access. In addition, the College Board has found that taking Advanced Placement courses tends to improve students' academic attitudes and behavior in ways such as honing study skills and time management, strengthening academic persistence, and providing experience with study groups.

The College Board administers AP exams, developed in partnership with colleges and universities to assess college-level learning, in 34 subject areas. The exams are graded on a scale of one to five, and most U.S. colleges and universities grant college credit or placement into a higher level college course to students who earn a grade of three or better. AP exams are optional, and not all students who take an AP course opt to sit for the exam. In Maine, the proportion of high school graduates who had taken at least one AP exam increased from 18% of the class of 2002 to nearly 29% of the class of 2007 (see chart). In New England, 18% of the class of 2002 and 25% of the class of 2007 took an AP exam. The proportion of students who achieved a score of three or higher on at least one AP exam grew from 12% of the class of 2002 to 18% of the class of 2007 in Maine, and from 12% of the class of 2002 to 17% of the class of 2007 in New England. Thus, the percentage of Maine students scoring three or higher on AP exams has increased comparably to the New England average, and the percentage of Maine students taking AP exams has surpassed the regional average.

**AP Exams in Maine and New England: High School Classes of 2002 and 2007**

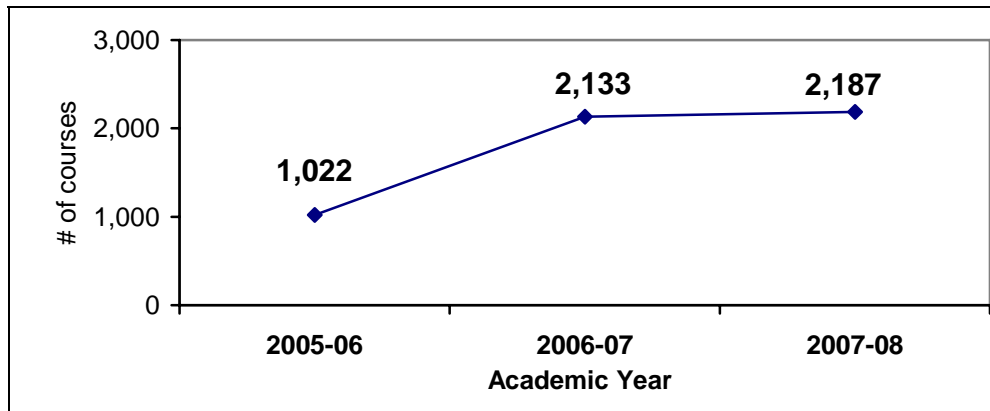


## Indicator 7: Early College Courses

In many high schools around Maine, students have the opportunity to take college courses for dual college and high school credit. “Early college” courses differ from Advanced Placement courses in that students who pass the courses automatically earn college credit. Some early college courses are offered at high schools, but in most cases students take courses on college campuses side-by-side with college students. Early college courses both contribute to a rigorous academic experience in high school and give students the opportunity to experience college-level work and college-level success in a college environment. Particularly for students with uncertain aspirations, participating in early college courses may increase the likelihood that they will enroll and persist in college.

A 2006 survey found that nearly three-quarters (73%) of Maine’s public high schools allowed their students to take college courses for dual credit. At that time, the schools reported a total of 1,022 students enrolled in dual credit early college courses. Maine’s “Early Studies” program, in which the state splits the cost of tuition with public postsecondary institutions, began in 1998. In its early years, the program funded between 200 and 400 early college courses each year. The combination of a National Governor’s Association grant; broadened eligibility and expanded state funding for Early Studies; and the development of a distance education early college program at the University of Maine has rapidly increased access to early college in the past several years (see chart).

**Maine High School Students Taking Early College Courses, 2005-2008**

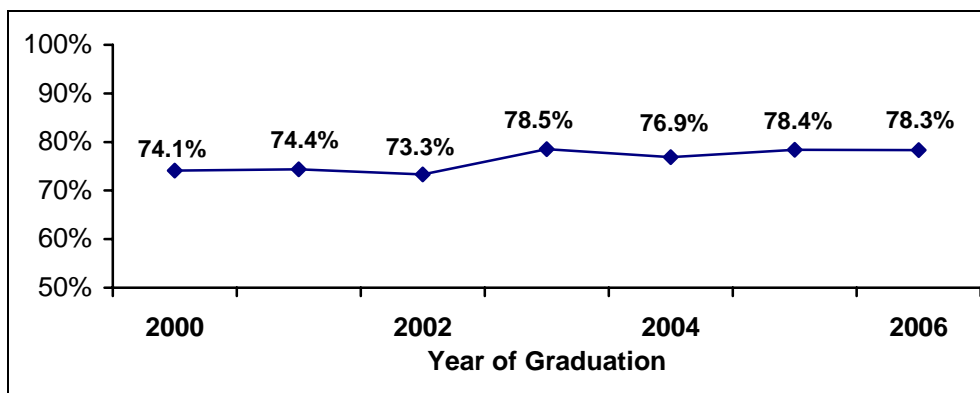


The Early Studies program funded 756 early college courses in 2006-2007 and 1,421 courses in 2007-2008, an 88% increase. The Maine Community College System separately sponsors about 400 early college courses each year through its *Early College for ME* and *On Course for College* programs. Nonprofit organizations such as the Great Schools Partnership and the MELMAC Education Foundation also support early college programs, and several local high school-college early college partnerships have formed around the state. As shown above, we estimate that participation in early college has more than doubled statewide since 2005.

## Indicator 8: High School Completion

High school graduation is a critical step in preparing Maine students to move on to college. Here we calculate on-time high school graduation, or the number of 9<sup>th</sup> graders enrolled in Maine high schools that graduate four years later. The percentages are adjusted to reflect high school population change during the corresponding four-year period. The proportion of Maine students who complete high school on time increased from 74% in 2000 to 78% in 2006, as shown below. These are currently the best available data; however Maine, along with 46 other states, has agreed to implement a high-quality, comparable high school graduation measure which will account for student transfers. In Maine, the new data are scheduled to be available beginning with the class of 2010.

**Maine High School Completion Rate: 2000-2006**

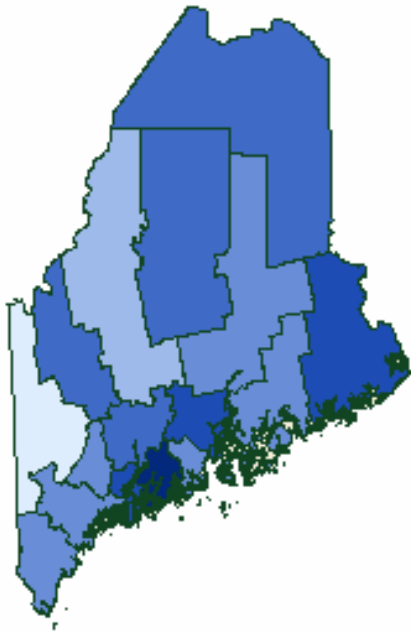


The National Center for Higher Education Management Systems provides comparable data for high school completion in Maine and New England. For the years 2000 through 2005, New England's on-time graduation rate was slightly below Maine's, increasing from 75% to 76%.

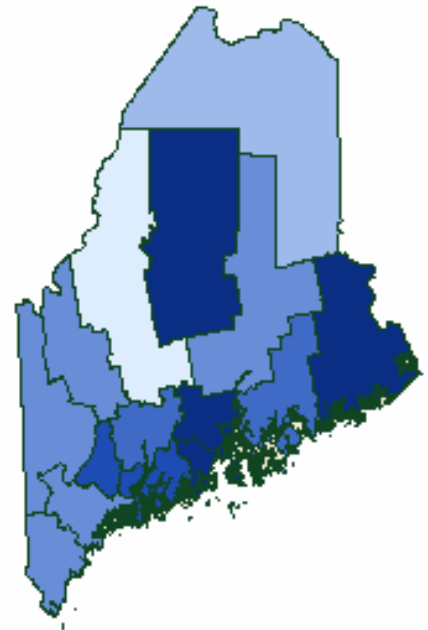
### Regional Analysis:

As shown on the next page, there is a great deal of variation in high school graduation rates among Maine's counties. In 2006, graduation rates ranged from 69% in Oxford County to just above 90% in Lincoln County. Since 2000, each county has also seen variation in its own graduation rate from year to year. While most rates have been relatively stable, Somerset County's graduation rate dropped 6 percentage points during this six year period while Knox County's rate climbed 16 percentage points.

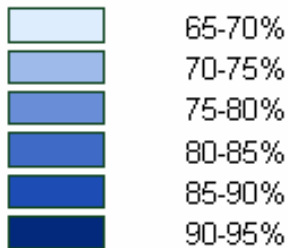
**2006 Graduation Rates in Maine's Counties**



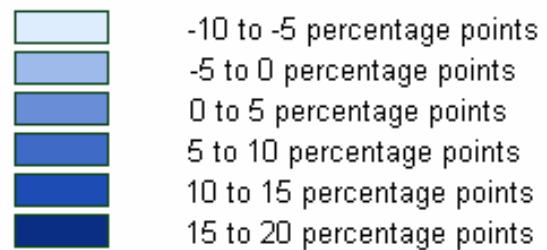
**Change in Graduation Rates by County, 2000-2006**



**Graduation Rate 2006**



**Change in Graduation Rate Between 2000-2006**

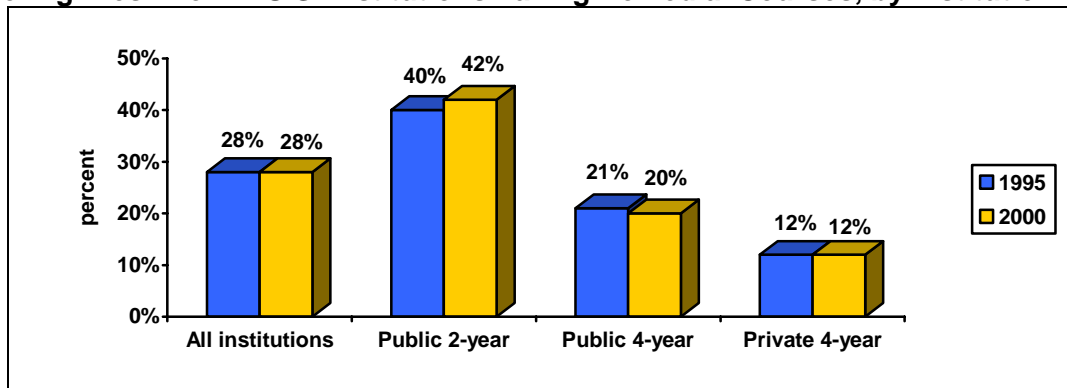


## Indicator 9: Remedial College Courses

A final indicator of student preparedness for college is the extent to which students entering postsecondary institutions need remedial work. Remedial or developmental college courses may be offered in reading, writing, and math for students lacking the necessary skills to perform work at the level required by their institution. Remedial courses generally cost the same as other college courses, but any credits earned do not count toward degree requirements. While it is of concern if students need remedial courses when enrolling in college directly from high school, remedial college courses are an important service for many adults entering college after being out of school for a long time.

Nationally, about three-quarters of degree-granting colleges offer remedial courses. In both 1995 and 2000, 28% of entering college freshmen took at least one remedial course. Students entering two-year public institutions are more likely to take remedial courses than are students entering four-year institutions, as shown below. A 2004 survey found that 36% of students in the UMaine system and 37% of Maine Community College students take at least one remedial course. Many of Maine's private four-year college also offer remedial courses, and require students with SAT scores below a certain cut-off point to take them.

**Entering Freshmen in U.S. Institutions Taking Remedial Courses, by Institution Type**



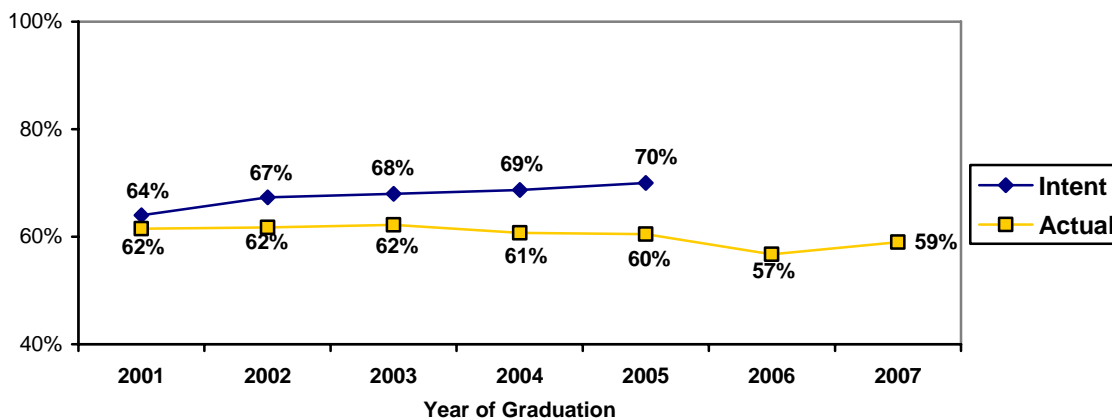
## IV. ARE MORE MAINE PEOPLE ENROLLING IN POSTSECONDARY EDUCATION AND GRADUATING?

This section looks at the proportion of recent high school graduates intending to enter college and the proportion that actually enroll, Maine adults enrolled in postsecondary education, overall enrollment in Maine colleges, and the number of degrees earned in Maine.

### Indicator 10: Recent High School Graduates Entering College: Intentions and Enrollment

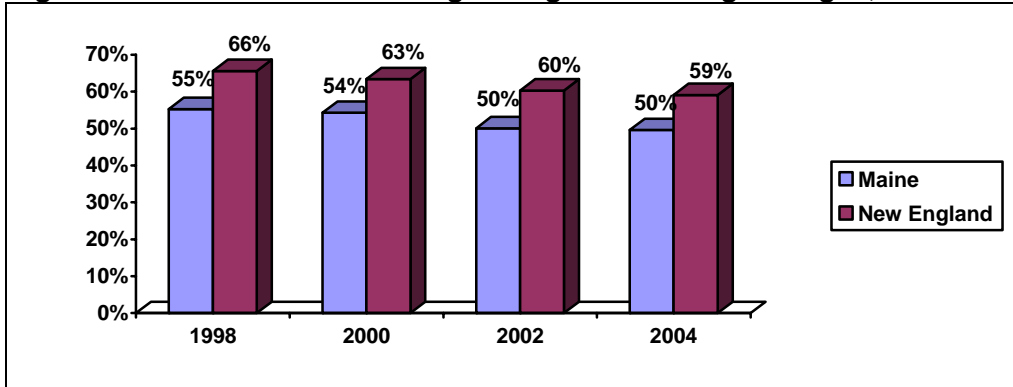
Ideally, graduating students finalize their college plans before the end of their last year of high school. Intent to enroll in college in the spring of the senior year is one measure of student transition from secondary education to college. The proportion of Maine high school graduates reported by guidance counselors as intending to enroll in a postsecondary degree program rose by six percentage points, from 64% to 70%, between 2001 and 2005. Actual enrollment in a two- or four-year college degree program within one year after graduation did not increase in that time period, and has since dropped slightly. 62% of Maine high school graduates enrolled in college within a year after graduation in 2001 through 2003. The proportion has dropped slightly since, and stood at 59% for the class of 2007.

**College-Going among Maine High School Graduates, 2001-2007**



In order to compare Maine with New England, we use a different data set that includes only students who enrolled in college in the fall after high school graduation, rather than within a full year after graduation. These data indicate that, both in Maine and New England, actual college enrollment among recent high school graduates has dropped since 1998 (see following chart). The rate of continuation on to college in New England has remained roughly ten percentage points higher than Maine's during that time period. In 2004, 59% of New England high school graduates enrolled directly in college, compared with 50% in Maine.

**High School Graduates Enrolling in Degree-Granting Colleges, 1998-2004**

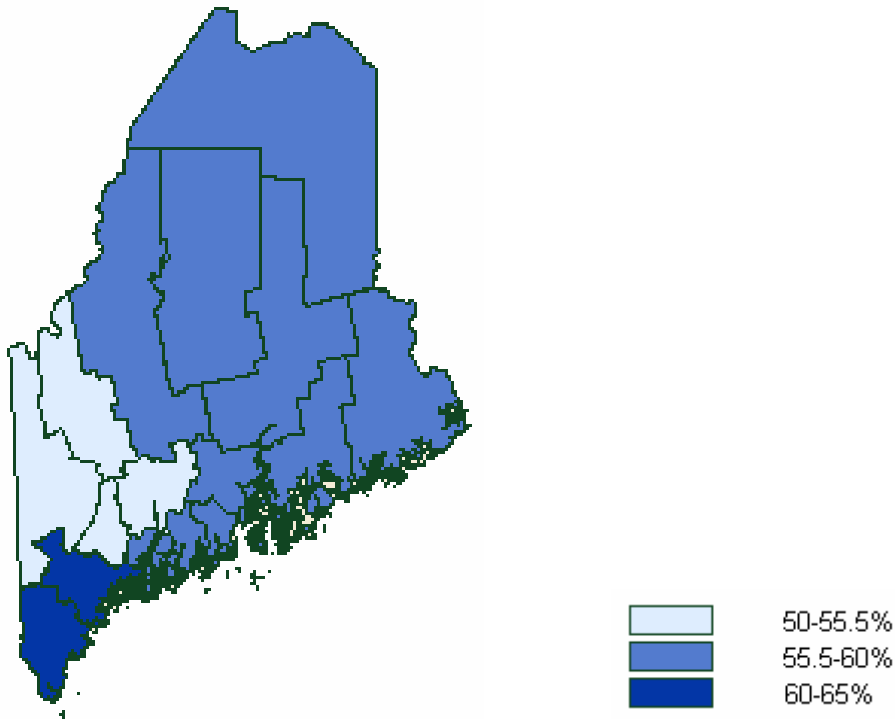


**Regional Analysis:**

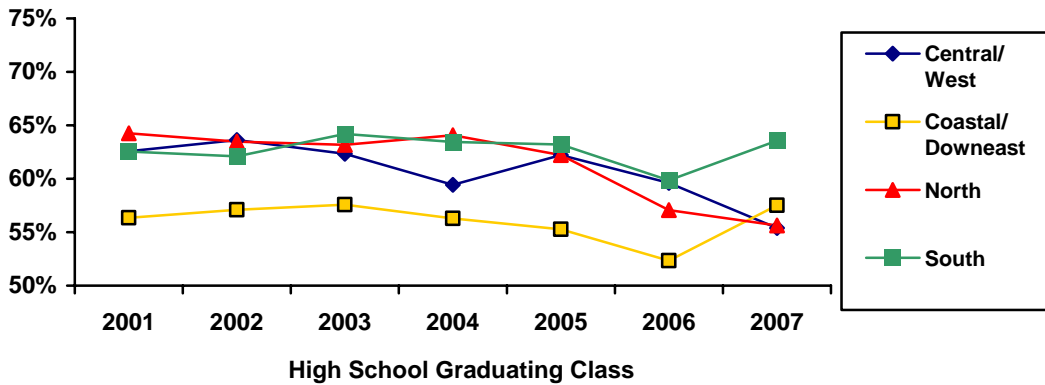
College enrollment rates among Maine high school graduates vary by region of Maine. Graduates from Southern Maine enroll in college at the highest rates, while those from Central/Western and Coastal Maine are less likely to enroll in college. Northern Maine in particular has seen a decline in college enrollment since 2004. The map on the following page shows college enrollment within a year after graduation for the high school class of 2007 by region, and the chart displays the trend in each region’s college-going rates over the past seven years.

Region	Counties
Central/Western Maine	Androscoggin, Franklin, Kennebec, Oxford
Coastal/Downeast Maine	Hancock, Lincoln, Knox, Sagadahoc, Waldo, Washington
Northern Maine	Aroostook, Penobscot, Piscataquis, Somerset
Southern Maine	Cumberland and York

## College Enrollment within One Year of Graduation, High School Class of 2007

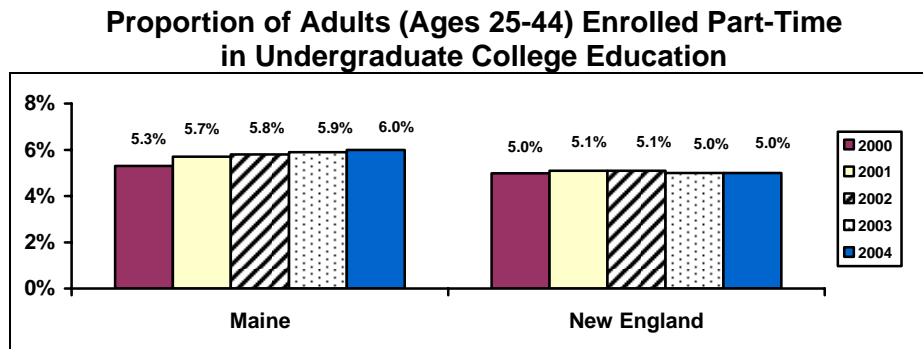


### College Enrollment by Region, 2001-2007



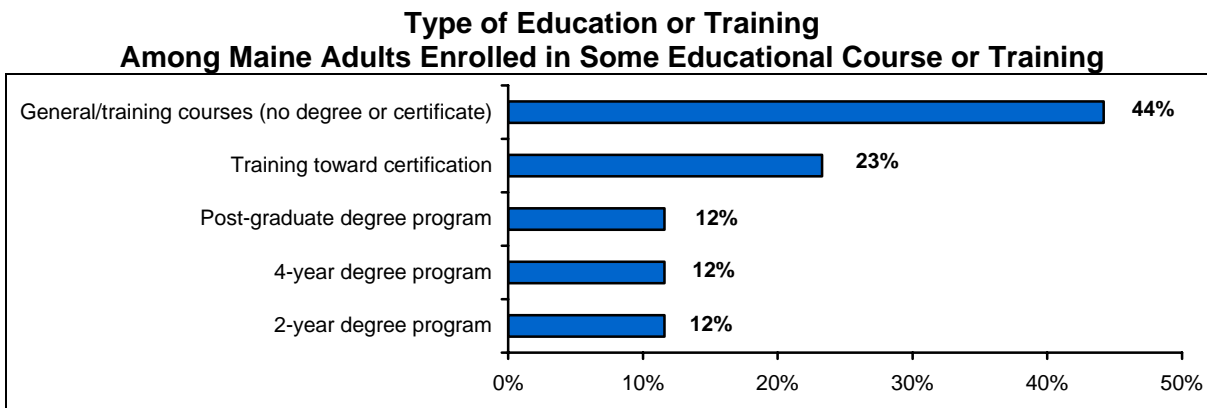
## Indicator 11: Adults Enrolled in Postsecondary Education

The other indicators in this section all examine people of traditional college age (roughly 18 to 23). Adult or non-traditional students, defined as those aged 24 and older, are an important population in Maine both because we have an adult population with relatively low rates of college degree attainment, and because our numbers of traditional-age high school graduates are predicted to decline in the coming years. As shown below, part-time college enrollment among adults age 25-44 in Maine is slightly higher than in New England. Between 1999 and 2004, the proportion of Maine adults enrolled part-time in college increased from 5.2% to 6.0%. In New England, adult college enrollment remained at roughly 5.0% during the same time period.



In order to enroll in college, adults without a high school diploma must complete a high school credential. In 2005, 54,000 Mainers between the ages of 25 and 64 had not completed high school. New information from the Maine Department of Education indicates that about 4,500 adults participate in secondary education each year in Maine. In 2004, 1,751 Maine adults received high school diplomas or GEDs at 50 adult education programs surveyed. Among these adults, 465 (26.5%) applied for admission to a postsecondary institution and nearly all (420 or 24%) enrolled in one or more college classes.

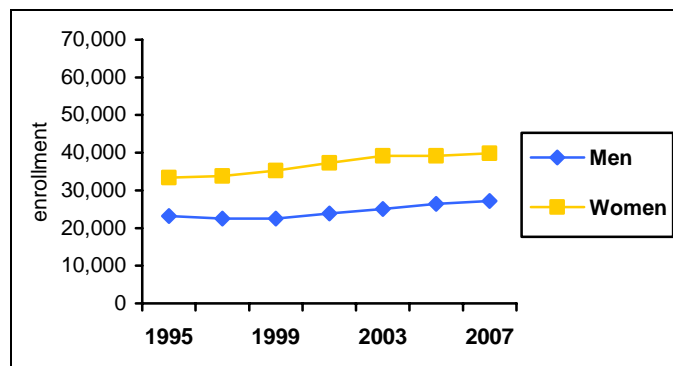
A 2005 poll of 400 Maine adults looked more broadly at participation in education and training. 11% of respondents indicated that they are currently enrolled in an educational course or training program. The following chart shows that among these 43 respondents, more than one-third (35%) were working toward a college degree and another 23% were working toward a certification, while 44% were enrolled in general courses but not working toward a degree.



## Indicator 12: Total College Enrollment

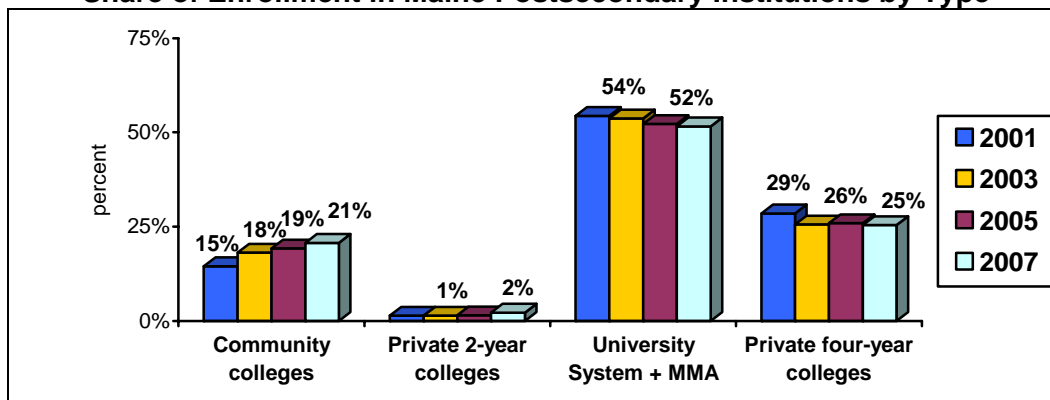
The number of students enrolled in Maine’s colleges and universities is a key indicator of the scope of higher education in our state. The figures in the chart below include full-time and part-time students at both the undergraduate and graduate levels. Between 1995 and 2007, enrollment grew by nearly 20%, or just over 10,500 students. The latest student enrollment figures indicate that 67,059 students were enrolled in Maine’s degree-granting institutions in the fall of 2007. From 1995 to 2003, the share of women enrolled in Maine’s colleges and universities grew from 59% to 61%, then fell back to 59% by 2007. Maine resident enrollment in college (77,643 in 2006) is a higher figure because more Maine residents go to college in other states than the number of students from other states enrolled in Maine colleges (see Appendix 1).

**Total Enrollment in Maine’s Degree-Granting Colleges and Universities, 1995-2007**



The University of Maine System currently enrolls more than half (52%) of Maine’s college students (see below). Since 2001, the Maine Community College System’s share of Maine’s college students has increased from 15% to 21%. The share of Maine students attending private four-year colleges has dropped from 29% to 25%.

**Share of Enrollment in Maine Postsecondary Institutions by Type**



The table on the next page shows enrollment figures for Maine’s colleges and universities. Community colleges tend to enroll more part-time than full-time students, while full-time students outnumber part-timers at four-year public universities. At the private four year colleges, full-time students outnumber part-time students by roughly two to one overall.

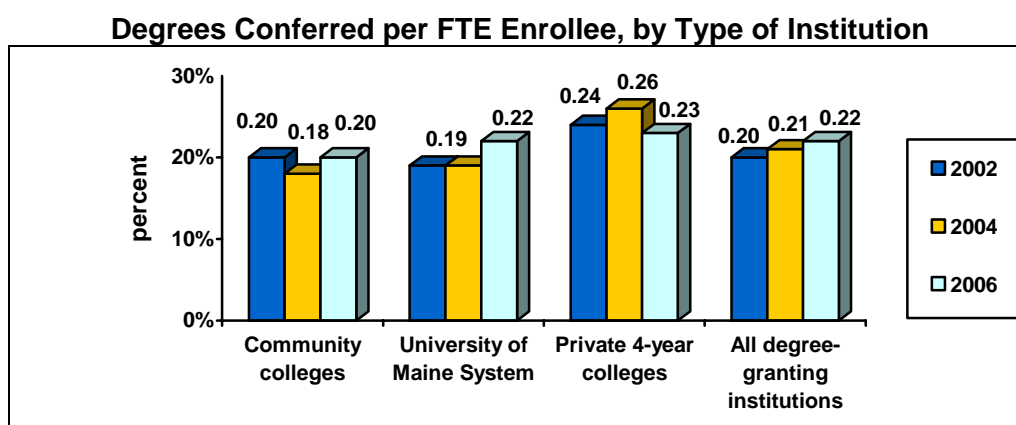
### Total Enrollment at Maine Degree-Granting Colleges and Universities

COLLEGE	2001		2007	
	Part-time	Full-time	Part-time	Full-time
<b><u>Community Colleges</u></b>				
Central Maine Community College	810	625	1,447	1,063
Eastern Maine Community College	933	663	841	1,082
Kennebec Valley Community College	874	381	1,523	541
Northern Maine Community College	332	551	382	573
Southern Maine Community College	1,385	1,086	2,713	2,400
Washington County Community College	56	216	94	276
York County Community College	584	247	661	337
	<b>4,974</b>	<b>3,796</b>	<b>7,661</b>	<b>6,272</b>
<b>Community College Total</b>	<b>8,770 (51% female)</b>		<b>13,933 (53% female)</b>	
<b><u>Private 2-Year Colleges</u></b>				
Andover College	16	505	462	606
Beal College	83	221	138	302
<b>Private 2-Year College Total</b>	<b>825 (74% female)</b>		<b>1,508 (78% female)</b>	
<b><u>Public 4-Year Colleges &amp; Universities</u></b>				
Maine Maritime Academy	19	708	27	874
<b>University of Maine System</b>				
University of Maine	2,857	7,841	2,904	9,008
University of Maine at Augusta	4,099	1,476	3,582	1,519
University of Maine at Farmington	340	2,095	250	2,101
University of Maine at Fort Kent	305	592	531	738
University of Maine at Machias	475	542	656	437
University of Maine at Presque Isle	414	953	452	1,081
University of Southern Maine	5,592	5,374	4,457	5,996
<b>UMaine System Subtotal</b>	<b>14,082</b>	<b>18,873</b>	<b>12,832</b>	<b>20,880</b>
<b>Public 4-Year College &amp; University Total</b>	<b>32,955 (62% female)</b>		<b>34,613 (61% female)</b>	
<b><u>Private 4-Year Colleges</u></b>				
Bates College	0	1,767	0	1,660
Bowdoin College	14	1,621	6	1,710
Colby College	1	1,808	0	1,867
College of the Atlantic	9	262	21	328
Husson College	905	959	782	1,692
Maine College of Art	35	400	24	355
New England School of Communications	1	102	18	373
St. Joseph's College	4,107	1,163	1,680	1,167
Thomas College	310	469	341	634
Unity College	21	480	16	539
University of New England	706	2,131	627	3,165
	<b>6,109</b>	<b>11,162</b>	<b>3,515</b>	<b>13,490</b>
<b>Private 4-year College Total</b>	<b>17,271 (63% female)</b>		<b>17,005 (60% female)</b>	
<b>GRAND TOTAL</b>	<b>60,548 (61% female)</b>		<b>67,059 (59% female)</b>	

## Indicator 13: Degree Completion

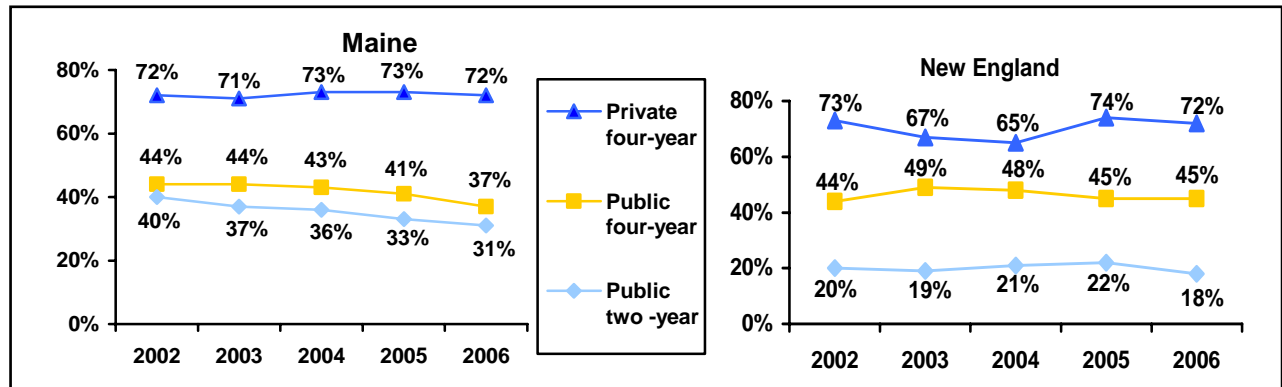
The total number of degrees awarded by Maine colleges and universities is one factor in determining educational attainment in the state. The figures presented in the chart below include associate, baccalaureate, graduate, and professional degrees. Maine institutions awarded more than 10,800 degrees in 2006, a 20% increase over the more than 9,000 degrees awarded in 1996. In 2004, women earned 62% of the degrees awarded in Maine, up from 57% in 1996.

The number of degrees conferred per full-time equivalent (FTE) student enrolled is one measure of degree completion. The number of degrees conferred per FTE enrollee in Maine institutions grew slightly from 0.20 in 2002—meaning that one degree was conferred for every five full-time equivalent students each year—to 0.22 in 2006 (see chart below).



Another indicator of degree completion is the graduation rate, defined here as the percentage of entering undergraduate students who complete an associate degree within three years or a bachelor's degree within six years at the same institution in which they initially enrolled. The data available for this indicator are flawed in that students who transfer are counted as a negative at the institution they leave and are not counted at all at the institution(s) to which they transfer. As shown in the following charts, Maine's graduation rate at public two-year colleges is significantly higher than that of New England as a whole. The graduation rates at Maine's public four-year colleges and universities tend to be lower than the New England average, and graduation rates at private colleges and universities in Maine and New England are comparable.

### Graduation Rates by Institution Type, 2002-2006



These college completion indicators show that the rates of degree completion vary by institution type, and are lower at community colleges and public universities, where many part-time and non-degree seeking students enroll, compared with private four-year colleges, many of which primarily enroll full-time, degree-seeking students.

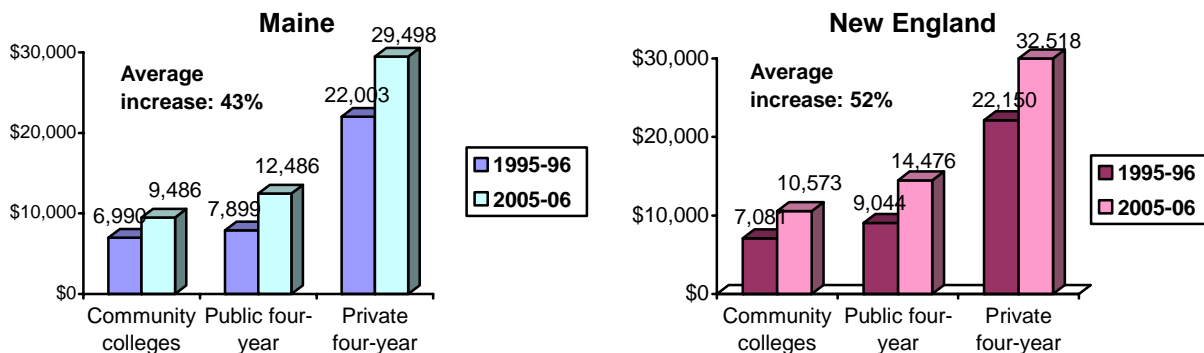
## V. IS MAINE POSTSECONDARY EDUCATION MORE AFFORDABLE?

As measures of college affordability in Maine, we look at the cost of college (both the net cost and the cost as a proportion of income for lower- and middle-income Maine families), state investments in higher education and in grant aid to students, student borrowing for college, and employer support for education.

### Indicator 14: Cost of College

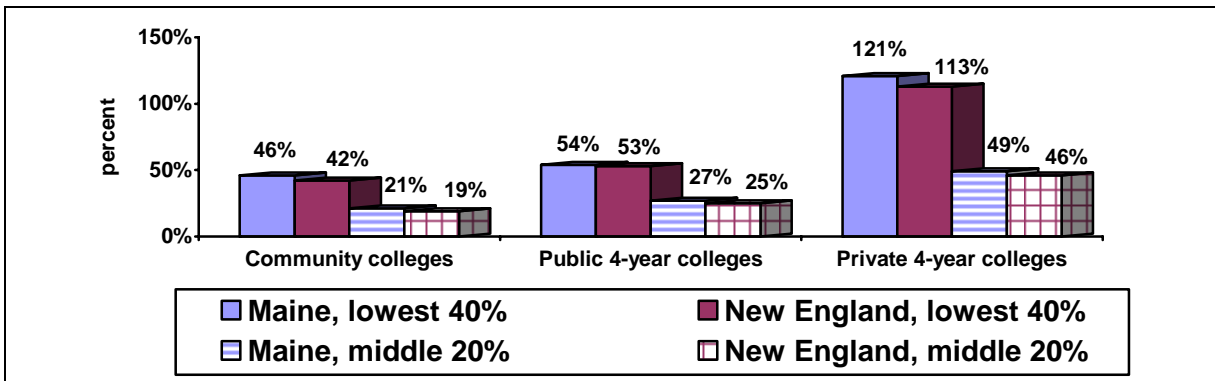
College cost is a key indicator of the affordability of higher education. The cost of college has increased steadily over the past decade. In Maine, the average increase in college costs from 1995-06 to 2005-06 was 43%, compared with 52% in New England as a whole (see following chart). While financial aid has also increased, its increase equals only about two-thirds of the increase in private college tuition and fees and almost all of the increase in public four-year college tuition and fees, but none of the increase in costs of attendance like room and board (College Board, 2007). This means that unmet financial need is on the rise.

**Increase in College Cost (Tuition, Fees, Room and Board), 1995 to 2005**



The next chart shows the percentage of families' incomes needed to pay the average net costs at community colleges, and public and private four-year colleges. Net college cost is the cost of tuition, fees, room and board minus financial aid (including federal, state, and institutional grants). Because financial aid varies based on demonstrated financial need, the net cost of college varies, primarily depending on students' family income.

**Percentage of Annual Income Needed to Pay Net College Cost, 2005-2006**

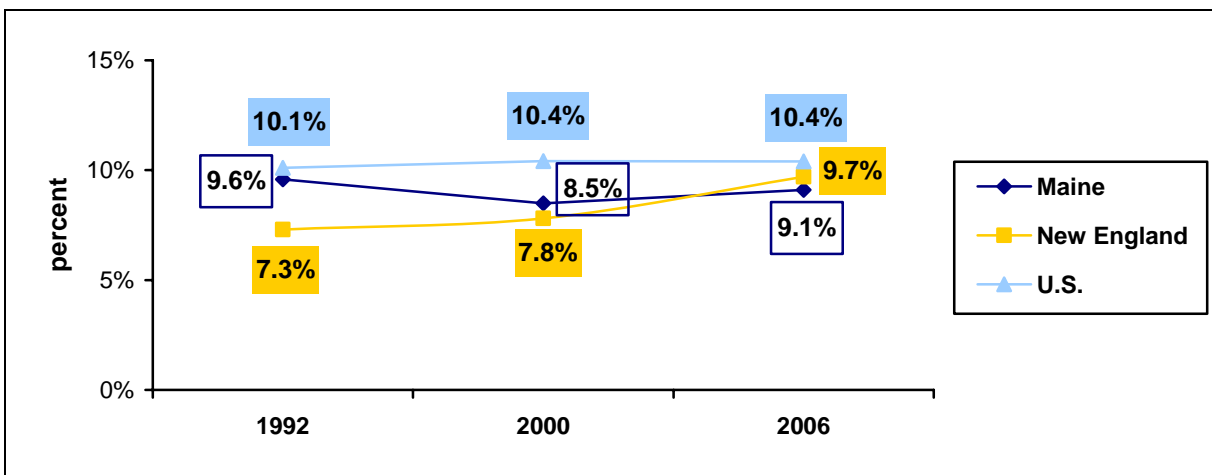


Net college costs represent at least twice the share of annual income for lower income families compared with middle income families. For example, the net cost of community college represents 46% of income for Maine families in the lowest 40% of the income distribution, and only 21% of income for those in the middle 20% of the income distribution. Compared with the New England averages, net college costs in Maine are lower in all the categories. However, low- and middle-income Maine families must pay a higher proportion of their incomes than the average for comparable families in New England to cover net college costs.

## Indicator 15: State Contribution to Higher Education

The state government's contribution to higher education is measured here as a percentage of total state expenditures. This is a key measure of the state's commitment to higher education. Higher education expenditures include all costs associated with public degree-granting institutions of higher education (community colleges, universities, etc.) except for agricultural extension services. These figures exclude bonded indebtedness for higher education (e.g., capital investments). In Maine, the state government contribution to higher education as a percentage of total expenditures has dropped since 1992. As shown below, the proportion declined from 9.6% in 1992 to 9.1% in 2006. Higher education expenditures in Maine in 2006 were \$715.2 million, 9.1% of the total state budget of \$7.854 billion. Maine's contribution in 2006 fell below the New England average of 9.7%, which has grown by 2.4 percentage points (33%) since 1992. Both Maine and New England have significantly lower postsecondary education expenditures as a percentage of total state expenditures than the national average of 10.4%.

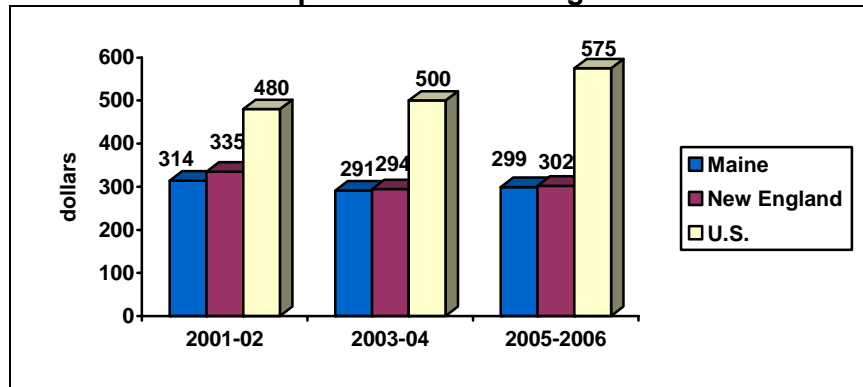
Higher Education Expenditures as a Percentage of State Budgets, 1992-2006



## Indicator 16: State Grant Aid

Another indicator of a state's investment in higher education is the amount of financial aid it provides to college students. The most desirable form of financial aid is grants, which are subsidies that students do not have to pay back. Maine provides over \$13 million in grant aid each year to undergraduate students, which was about \$299 per full-time equivalent (FTE) undergraduate student enrolled in 2005-2006 and about \$315 in 2001-2002. The New England average is about the same, at about \$302 in 2005-2006 and \$335 in 2001-2002. Nationally, the amount of grant aid states provide to undergraduates is much higher, at about \$575 per FTE student. Nationwide, the amount of state grant aid per FTE undergraduate student increased from 2001-2002 to 2005-2006, while it fell both in Maine and in New England (see chart and table below).

**State Grant Aid per Full-time Undergraduate Student**

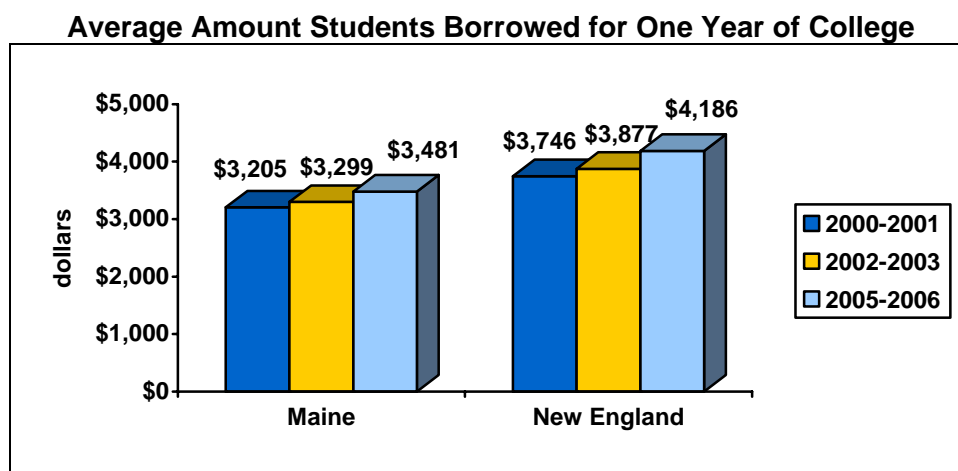


	2001-2002		2003-2004	
	Undergraduate Grant Aid	Grant Aid per FTE student	Undergraduate Grant Aid	Grant Aid per FTE student
<b>Maine</b>	\$12,021,000	314.06	\$12,562,000	290.94
<b>New England</b>	\$196,584,000	334.60	\$165,814,000	294.39
<b>United States</b>	\$5,034,648,000	480.10	\$5,719,842,000	500.16

	2005-2006	
	Undergraduate Grant Aid	Grant Aid per FTE student
<b>Maine</b>	\$13,387,000	298.76
<b>New England</b>	\$167,613,000	302.33
<b>United States</b>	\$7,043,186,000	575.06

## Indicator 17: Student Borrowing

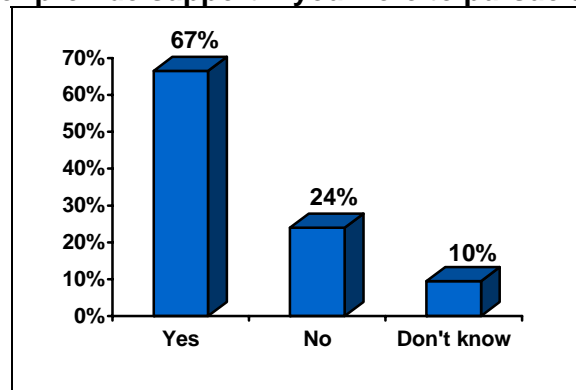
Another indicator of the affordability of higher education is the amount of debt students must incur in order to pay college expenses. This indicator looks at the average amount that undergraduate students (at two-year and four-year colleges) borrow each year. Among all undergraduates nationally, 35% took out student loans in 2003-04. The proportion of students who borrow rises to 65% among bachelor's degree recipients. The average Maine undergraduate takes out nearly \$3,500 each year in student loans. This figure includes all students, not just those who borrow. Since 2000, average annual student borrowing in Maine has increased by 9%, from \$3,205 to \$3,481 (see chart below). This translates into roughly \$7,000 for two years of college or nearly \$14,000 for four years. In fact, the national average of total student debt among the 65% of bachelor's degree recipients in 2000 who took out student loans was \$19,300. For the 2005-2006 school year, Maine students borrowed \$705 less, on average, than the average for New England students. For Maine students graduating from four-year colleges in 2006, the average student loan burden was \$22,877, the seventh highest in the U.S. Nearly three-quarters (72%) of Maine students graduated with debt in 2006, the third highest ratio in the country.



## Indicator 18: Employer Support for Education

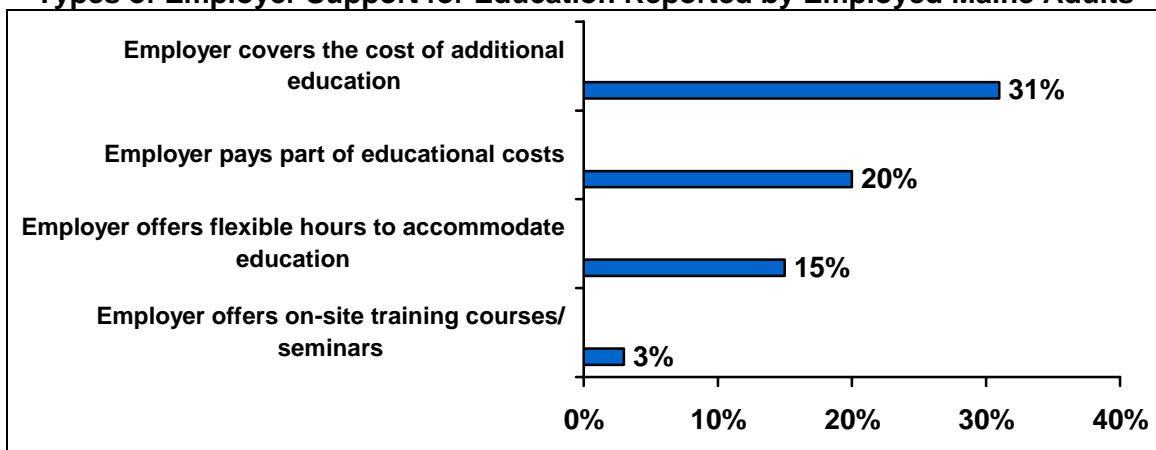
Particularly for adults wishing to further their education, employers can be a key source of financial support. A November 2005 survey of Maine adults asked several questions about the types of support employers provide for education. Of 400 adults polled, 221 (55%) reported that they were currently employed and expected to be employed in five years. These respondents were asked, “Does your employer or would your employer provide any level of support if you elected to pursue additional education?” Two-thirds (66.5%) of employed Mainers indicated that their employer would provide support for additional education, 24% said that their employer would not provide support, and 9.5% did not know. Only 13.6% of employed respondents indicated that they were enrolled in education or training courses.

### Would your employer provide support if you were to pursue additional education?



The survey also asked employed respondents what types of support for education employers provide. About three in ten employed adults (31%) said that their employer would pay for all of the cost of additional education, and another 20% said that their employer would pay part of the cost of additional education. The other most common types of employer support reported were flexible hours to accommodate education, reported by 15% of employed respondents, and on-site training courses or seminars offered by employers, reported by 3% of employed respondents.

### Types of Employer Support for Education Reported by Employed Maine Adults



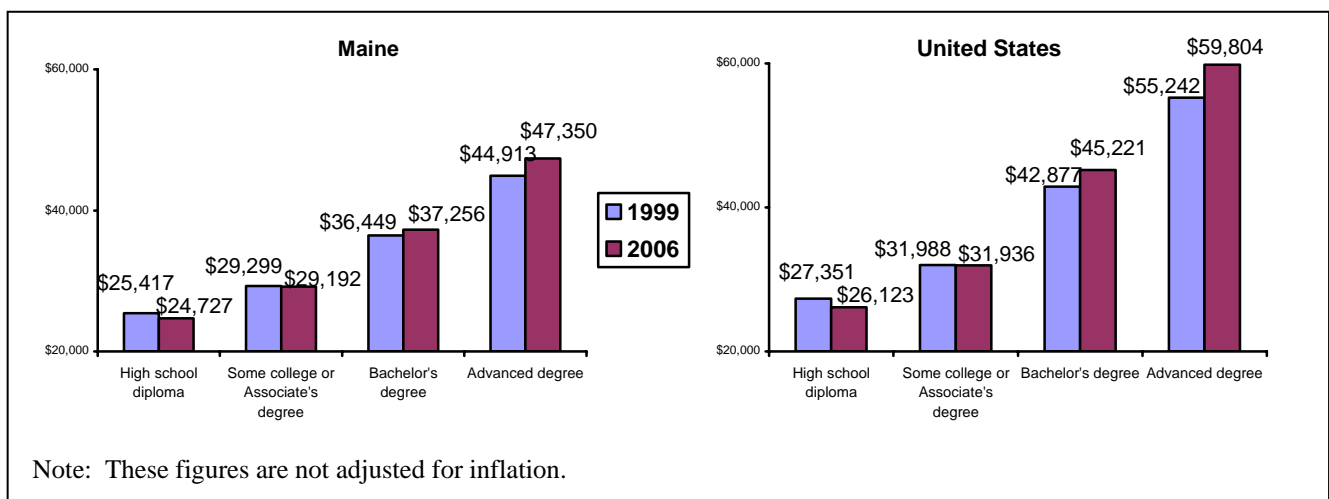
## VI. ARE MAINE'S PEOPLE, COMMUNITIES, AND ECONOMY BENEFITING?

Besides the inherent value of higher education, there are economic and other benefits, both to the individuals who earn degrees and to the communities in which they live. We look at earnings and income of Maine people with college degrees, unemployment rates by level of education, and other benefits of higher education, such as better health and more civic involvement.

### Indicator 19: Earnings and Income by Education Level

The wages and earnings of workers with increasing levels of education are indicators of how much value the labor market places on postsecondary education. There is a significant wage premium for Maine workers who have an associate degree or higher. Workers with an associate degree earn \$6.79 (or 47%) more per hour than those with only a postsecondary vocational certificate. Both in Maine and nationally, annual earnings of full-time workers increase significantly with each successive level of educational attainment (see charts below). In Maine, workers with some college earn 17% more per year than those with a high school diploma, and workers with bachelor's degrees earn 48% more than those with only a high school diploma (see chart below). The differences are larger in the U.S. as a whole (22% and 70%, respectively). As shown by the graph, the only groups in Maine that have experienced an increase in annual earnings since 1999 are those with bachelor's or advanced degree. Meanwhile, those with an associate degree or less have not only failed to see an improvement but have actually experienced a decrease in earnings since 1999. The United States exhibits the same trend demonstrating a return on an investment in education and the increasing financial difficulty for those with lower levels of education in the marketplace.

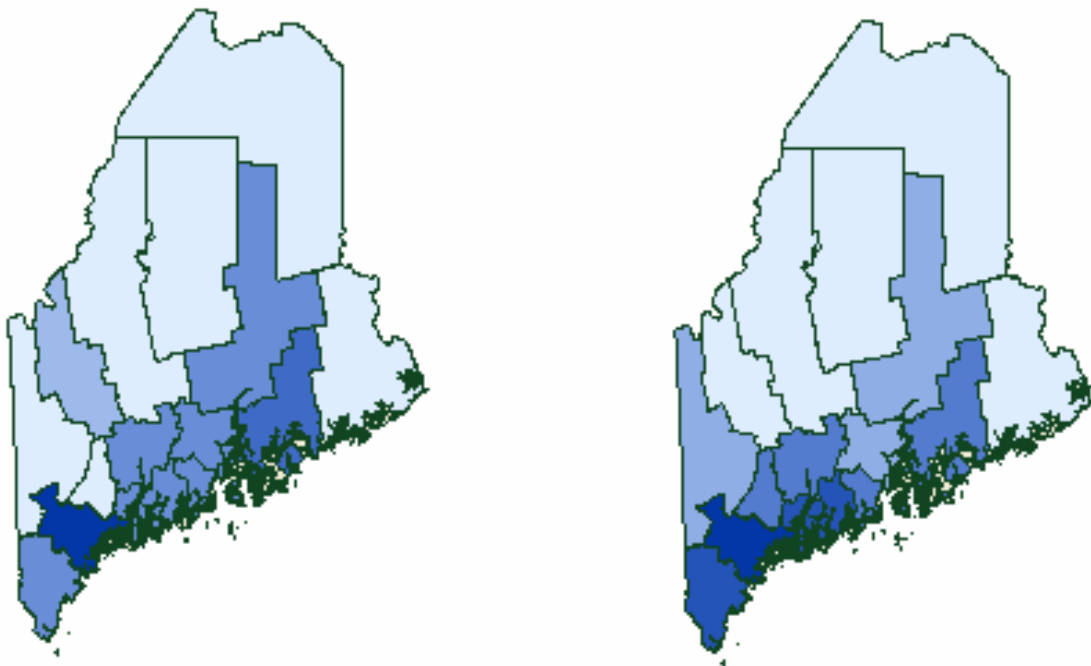
**Annual Earnings of Full-Time Working Adults, 1999 and 2006**



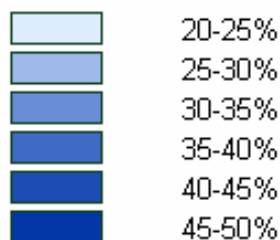
## Regional Analysis

Comparing educational attainment with per capita income in Maine's counties reflects a national trend of higher incomes in communities with higher proportions of college-educated adults. The strong relationship between educational attainment and per capita income is illustrated in the maps below. Cumberland County has the highest proportion of working-age adults with an associate degree or higher—46.6%—and also has the highest per capita income at \$23,949. Washington and Piscataquis are the only counties with per capita incomes below \$15,000, and they also have nearly the lowest educational attainment—both at 22.8% of working-age adults with an associate degree or higher.

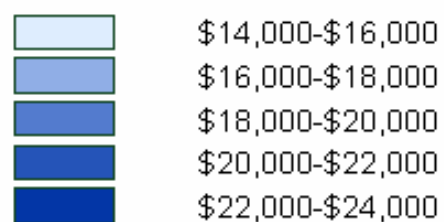
Per Capita Income and Educational Attainment (Percent of Adults Age 25-64 with an Associate Degree or Higher) in Maine's Counties, 2000



### Percent of Adults with a Degree

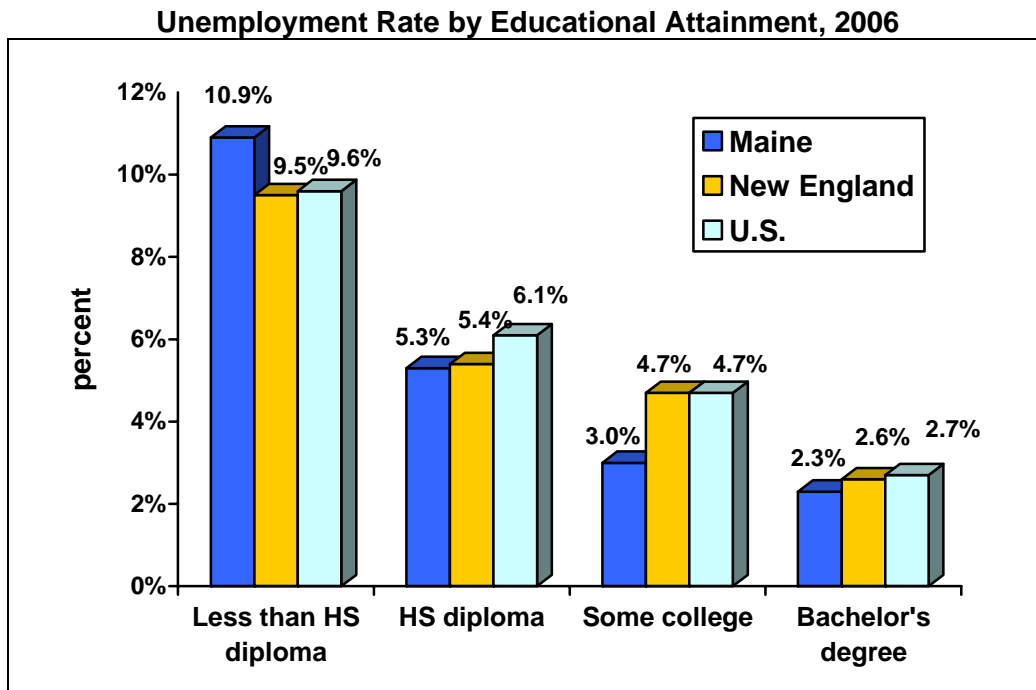


### Per Capita Income



## Indicator 20: Unemployment by Education Level

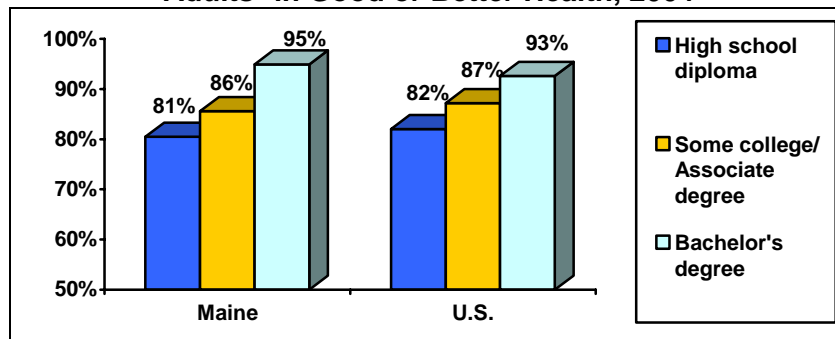
Unemployment rates are another indicator of the demand for higher education in the labor market. Unemployment is lower among those with higher levels of education, as illustrated in the chart below. In Maine, the unemployment rate among workers with only a high school diploma is more than twice as high as the unemployment rate for workers with a bachelor's degree—5.3% compared with 2.3%. Maine workers who have not completed high school have a higher unemployment rate than the national average, while unemployment among Maine workers with at least some college education is lower than in both New England and the U.S. as a whole.



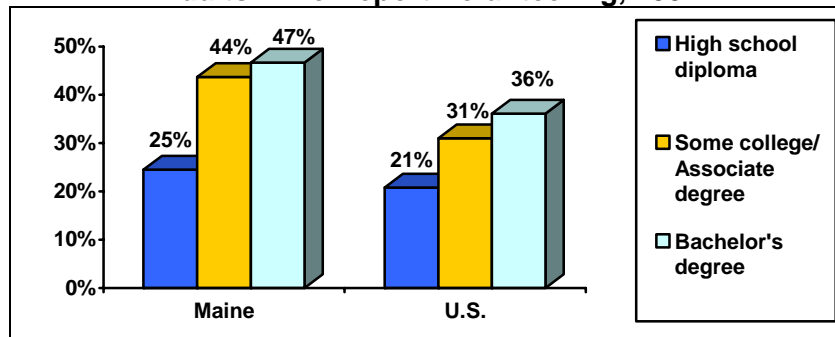
## Indicator 21: Other Benefits of Higher Education

Beyond the purely economic benefits to individuals who earn a college degree and communities with more highly educated residents, there are many social benefits associated with higher education. While some of these advantages derive from the better employment opportunities—with higher pay and more benefits—that college graduates have relative to those without a college degree, others result from things like decision-making skills students learn in college and social relationships they form. Many of the private benefits of higher education—such as better health and civic engagement—also benefit communities, states, and nations. The following charts show that the proportions of adults reporting that their health is good, very good or excellent; that they have ever volunteered for or through an organization; and that they voted in the November 2000 election increase significantly with higher levels of education.

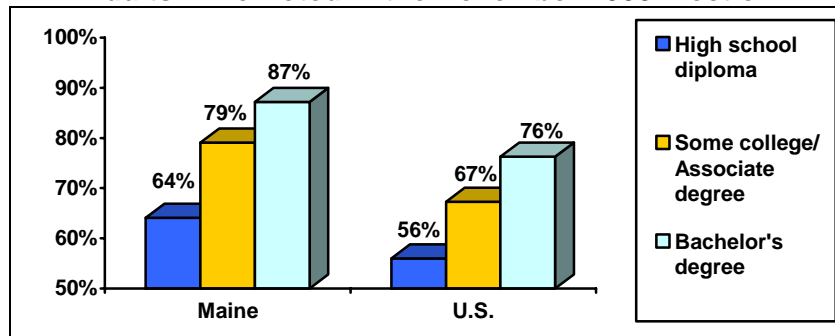
**Adults\* in Good or Better Health, 2004**



**Adults\* who Report Volunteering, 2004**



**Adults\* who Voted in the November 2000 Election**



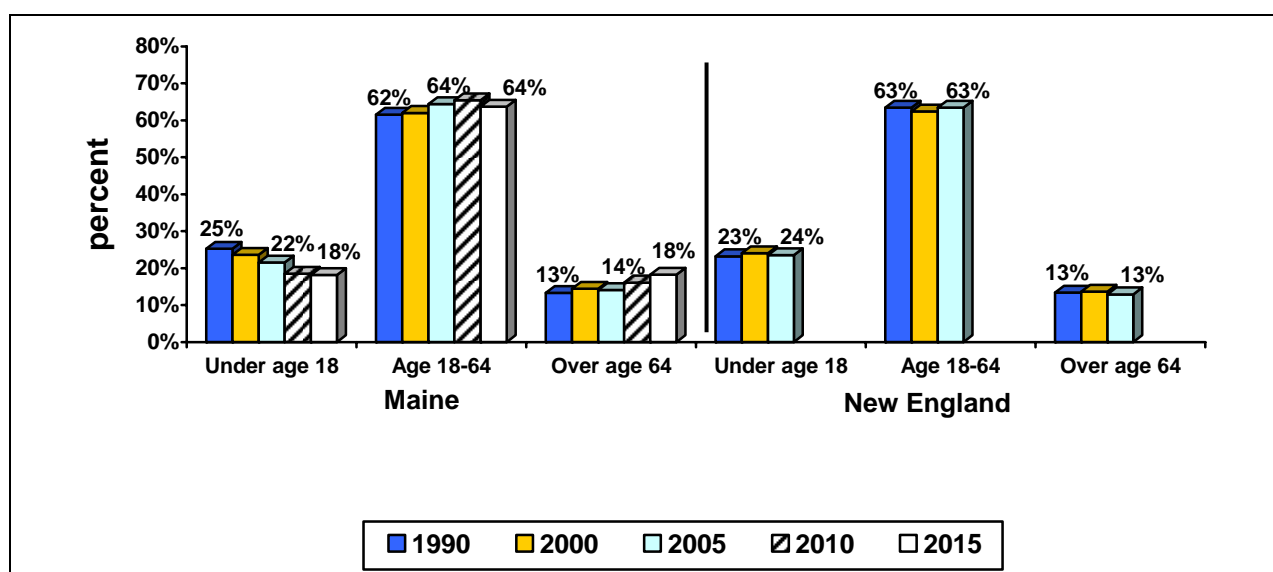
\*Age 25 and older

## APPENDIX 1: BACKGROUND DEMOGRAPHICS

### Population and Age Distribution

The most notable trend in Maine’s population since 1990 is a slow but steady decline in the number of people under age 18, as shown in the chart below. New England as a whole is not experiencing this decline (in fact, the number of people under 18 in New England increased slightly from 1990 to 2005). Maine’s population has grown slightly more slowly than New England’s since 1990—3.5% compared with 4.1%. Maine’s population under the age of 18 is projected to continue to decline over the next decade, while the population over age 64 is projected to grow.

**Age Distribution of the Population:  
Maine, 1990-2015  
New England, 1990-2005**



Maine Population	1990	2000	2005*	2010 <sup>†</sup>	2015 <sup>†</sup>
Under age 18	309,002	301,238	276,219	253,960	257,025
Age 18-64	755,553	790,283	826,139	897,285	904,010
Over age 64	163,373	183,402	181,315	220,850	258,465
<b>Total</b>	<b>1,227,928</b>	<b>1,274,923</b>	<b>1,283,673</b>	<b>1,372,095</b>	<b>1,419,500</b>

\* U.S. Census Bureau 2005 American Community Survey

<sup>†</sup> Maine State Planning Office Projections

The table on the next page shows the population in each of Maine’s counties. The population of Maine’s southernmost county, York, grew the most between 1990 and 2006, while the population in its northernmost county, Aroostook, declined the most. In addition to York County, two coastal counties, Lincoln and Waldo, saw population growth of more than 15% between 1990 and 2006. In three counties—Androscoggin, Piscataquis, and Washington—the population declined between 1990 and 2006.

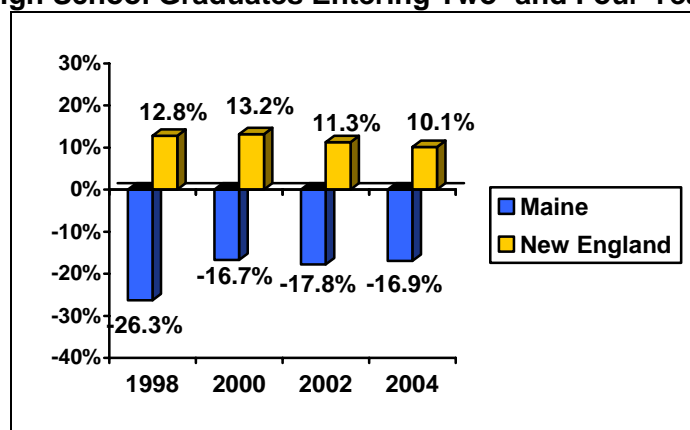
### Population of Maine's Counties, 1990, 2000, and 2006

County	Population			% Change, 1990-2006
	1990	2000	2006	
York	164,587	186,742	202,232	22.9%
Waldo	33,018	36,280	38,715	17.3%
Lincoln	30,357	33,616	35,234	16.1%
Hancock	46,948	51,791	53,797	14.6%
Knox	36,310	39,618	41,096	13.2%
Cumberland	243,135	265,612	274,598	12.9%
Sagadahoc	33,535	35,214	36,837	9.8%
Oxford	52,602	54,755	57,118	8.6%
Somerset	49,767	50,888	52,249	5.0%
Kennebec	115,904	117,114	121,068	4.5%
Franklin	29,008	29,467	30,017	3.5%
Androscoggin	105,259	103,793	107,552	2.2%
Penobscot	146,601	144,919	147,180	0.4%
Piscataquis	18,653	17,235	17,585	-5.7%
Washington	35,308	33,941	33,288	-5.7%
Aroostook	86,936	73,938	73,008	-16.0%

### Migration of Students Entering College

Interstate migration of students who enter college immediately after graduating from high school is an important factor in determining the overall educational attainment in a state. Nationally, students are more likely to stay in the state where they attend college than the one where they attended high school. In Maine, many more recent high school graduates leave the state for college than the number who come to Maine from other states for college, meaning that we are a net exporter of traditional-age college students. The figures in the chart below include any student who completed high school within the last 12 months and entered a two-year or four-year degree-granting college as a full-time student. In 2004, more than 4,100 of these Maine students left the state for college, while only about 2,900 students from other states entered Maine colleges, a net out-migration rate of 16.9%. For comparison, the 2004 average for all New England states was an in-migration rate of 10.1%.

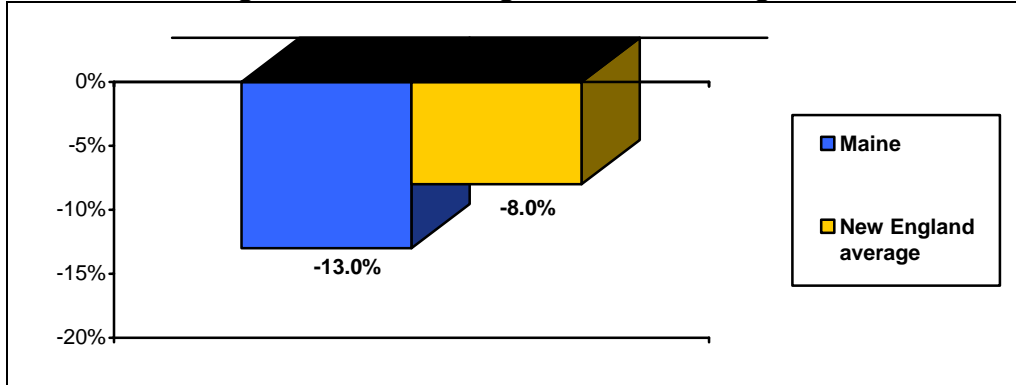
**Net Migration of High School Graduates Entering Two- and Four-Year Degree Programs**



## Net Migration of College Educated Young Adults

A special Census Bureau analysis found that between 1995 and 2000, Maine lost single young adults with bachelor's degrees at a faster rate than did New England as a whole. While nearly 5,700 college-educated adults moved to Maine during those years, nearly 7,400 left the state, as shown below.

**Net Interstate Migration Rate: College Educated Young Adults, 1995-2000**



Young, single, college-educated adults*	Maine	New England
Approximate 1995 population	21,305	414,316
In-migrants	5,693	107,799
Out-migrants	7,399	126,513
Net migration	-1,706	-18,714
Net migration rate	-13.0%	-9.8%

\*Adults ages 25-39 who were never married or were widowed or divorced and had at least a bachelor's degree in 2000

Migration of Maine's young adults was explored in more depth in a 2004 report produced by the University of Southern Maine and the Maine State Planning Office. The analysis found that most of the net out-migration of young people from Maine between 1995 and 2000 was accounted for by those in the 20 to 24 age group. Among those between the ages of 25 and 34, Maine actually experienced a net in-migration. The authors conclude that the opportunity to go to college is the greatest force contributing to out-migration of youth from Maine, but that Maine remains an attractive place for young people (primarily those born in other states) to move to.

## APPENDIX 2: DATA SOURCES

### **Indicator 1: Working-Age Adults with College Degrees**

1990 and 2000 figures are from the decennial U.S. Census. Data for 2001-2006 are estimates from the U.S. Census Bureau's American Community Survey. 1990 data are not readily available for the working-age adult population, so the figures used here are estimates developed by applying the differences in educational attainment between the population age 25 and over and the working age (25-64) subset in 2000 for 1990. See [www.census.gov](http://www.census.gov).

### **Indicator 2: Education Level Needed for Success**

November 2005 survey of Maine adults conducted by Strategic Marketing Services/Pan Atlantic Consultants for the Steering Committee of the Maine Readiness Campaign.

### **Indicator 3: All Students College-Ready**

November 2005 survey of Maine adults (see above). Educator data from surveys by Pan Atlantic SMS Group for Mitchell Institute's *Removing Barriers* study (see [www.mitchellinstitute.org](http://www.mitchellinstitute.org)).

### **Indicator 4: Student Performance on Assessment Tests**

Maine Educational Assessment (MEA) scores for each school in the state are published annually on the DOE's website at [www.maine.gov/education/mea/index.htm](http://www.maine.gov/education/mea/index.htm).

National Assessment of Educational Progress (NAEP) data for each state is available at <http://nces.ed.gov/nationsreportcard/states/>.

PSAT national and state reports are available from the College Board at [http://www.collegeboard.com/researchdocs/2006\\_psat.html](http://www.collegeboard.com/researchdocs/2006_psat.html)

### **Indicator 5: Middle and High School Math Courses**

Dana Duncan at the Maine Department of Education provided data from 2004 MEA tests. National research cited is from *Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment*, U.S. Department of Education, Office of Educational Research and Improvement, June 1999 by Clifford Adelman.

Data on Maine and New England 8<sup>th</sup>-graders taking Algebra 1 come from NAEP and are available from Achieve, Inc. at [www.achieve.org/achieve.nsf/StateProfiles?openform](http://www.achieve.org/achieve.nsf/StateProfiles?openform)

### **Indicator 6: Advanced Placement Courses and Exams**

The College Board, *Advanced Placement Report to the Nation 2007* ([apcentral.collegeboard.com](http://apcentral.collegeboard.com)).

### **Indicator 7: Early College Courses**

Maine Department of Education, *Maine's High School Aspirations Program, Enrollment Data*, Fall 2007 and Spring 2008, prepared by Donna Weeks. Statewide figures are Mitchell Institute estimates, collected from Charlie Collins at the Maine Community College System, UMaine's Academ-e, and Lewiston and Wells High Schools.

**Indicator 8: High School Completion**

Numbers of graduates are reported annually by public high schools and are published on the Maine Department of Education website at [www.maine.gov/education/enroll/grads/comprate/comprate.htm](http://www.maine.gov/education/enroll/grads/comprate/comprate.htm). On-time graduation rates calculated by the Mitchell Institute using DOE graduate figures and school enrollment data from DOE at <http://www.maine.gov/education/enroll/fall/fall.htm>.

For the New England comparison, data are from [www.higheredinfo.org](http://www.higheredinfo.org).

**Indicator 9: Remedial College Courses**

*Postsecondary Remedial Education*, Education Indicators for the White House, Social Statistics Briefing Room at <http://nces.ed.gov/ssbr/pages/remediated.asp?IndID=16> and Lynne Miller, Southern Maine Partnership, University of Southern Maine.

**Indicator 10: Recent High School Graduates Entering College: Intentions & Enrollment**

Data on intent to enroll in college are based on student reports to guidance counselors prior to graduation, whether or not students actually enroll in postsecondary education. The figures in this report are for public high schools, and the statewide average includes the 11 private high schools with 60% or more publicly-funded students. The data were collected through 2005 and are published on the Maine DOE's website at [www.maine.gov/education/enroll/grads/gradspost.htm](http://www.maine.gov/education/enroll/grads/gradspost.htm).

Data on student enrollment in college are from the Mitchell Institute's college enrollment data set, aggregated from graduate data provided by 92 of Maine's 130 public high schools. See *From High School to College: Removing Barriers for Maine Students*, July 2007 at [www.mitchellinstitute.org](http://www.mitchellinstitute.org).

New England and Maine comparison data are from the National Center for Higher Education Management Systems (NCHEMS) Information Center for State Higher Education Policymaking and Analysis at [www.higheredinfo.org](http://www.higheredinfo.org).

**Indicator 11: Adults Enrolled in Postsecondary Education**

NCHEMS Information Center for State Higher Education Policymaking and Analysis, [www.higheredinfo.org](http://www.higheredinfo.org). Enrollment data are from the NCES IPEDS and population data are from the U.S. Census Bureau.

Data on secondary education in Maine is from two surveys conducted by the Compact's College Transitions consultant in the early spring of 2005. Data on Maine adults engaged in any education or training come from the Strategic Marketing Services survey referenced in Indicator 2.

**Indicator 12: Total College Enrollment**

2001 and 2007 enrollment data are from the National Center for Education Statistics (NCES) Integrated Postsecondary Education Data System (IPEDS) Peer Analysis System. Total Maine enrollment data from 1995 through 2001 are from the Digest of Education Statistics at <http://nces.ed.gov/programs/digest>. More information on Maine's degree-granting institutions is available at the Maine Department of Education website: [www.maine.gov/education/highered/institutionslist.htm](http://www.maine.gov/education/highered/institutionslist.htm).

**Indicator 13: Degree Completion**

Degree data from 1996 through 2002 are from the Digest of Education Statistics at <http://nces.ed.gov/programs/digest>. Both the degree total for 2004 and FTE enrollment data are from the NCES IPEDS Peer Analysis System. Graduation rates come from the *New England Journal of Higher Education's* annual analysis U.S. Department of Education data. The latest issue is from Spring 2008, "Trends & Indicators in Higher Education 2008."

**Indicator 14: Cost of College**

Data on the increase of college costs from 1995 to 2005 come from the U.S. Department of Education's *Digest of Education Statistics 1997* and the National Center for Public Policy and Higher Education (see below). Financial aid figures from the College Board, *Trends in Student Aid 2007*, [www.collegeboard.com/trends](http://www.collegeboard.com/trends).

The net cost figures were calculated by the National Center for Public Policy and Higher Education for its report *Measuring Up 2006: The State Report Card on Higher Education*. See <http://measuringup.highereducation.org> for a national report, state report cards, and a technical guide detailing data sources.

**Indicator 15: State Contribution to Higher Education**

U.S. Census Bureau's annual survey of state and local government finances: [www.census.gov/govs/www/estimate.html](http://www.census.gov/govs/www/estimate.html)

**Indicator 16: State Grant Aid**

National Association of State Student Grant and Aid Programs (NASSGAP) annual survey reports at [www.nassgap.org](http://www.nassgap.org).

**Indicator 17: Student Borrowing**

Average annual student borrowing data are from the National Center for Public Policy and Higher Education, *Measuring Up 2006: The State Report Card on Higher Education* (see Indicator 14). The estimate of average debt among bachelor's degree recipients is from *Debt Burden: A Comparison of 1992-93 and 1999-2000 Bachelor's Degree Recipients a Year After Graduating*, National Center for Education Statistics, March 2005 at <http://nces.ed.gov/pubs2005/2005170.pdf>. The average student loan burden for four-year college graduates is from The Project on Student Debt, *Student Debt and the Class of 2006: Average Debt by State, Sector, and School*, September 2007. Project on Student Debt (September 2007). *Student Debt and the Class of 2006*. Berkeley, CA. [http://projectonstudentdebt.org/state\\_by\\_state-data.php](http://projectonstudentdebt.org/state_by_state-data.php)

**Indicator 18: Employer Support for Education**

Strategic Marketing Services survey referenced in Indicator 2.

**Indicator 19: Earnings and Income by Education Level**

Annual earnings data are from the Census Bureau's 2006 American Community Survey. Hourly wage data are from *Maine Employment Outlook 2002-2012*, December 2004 at [www.maine.gov/labor/lmis/pdf/MaineEmploymentOutlook.pdf](http://www.maine.gov/labor/lmis/pdf/MaineEmploymentOutlook.pdf).

For educational attainment by county, see Indicator 1. Per capita income estimates are from the 2000 U.S. Census at [www.census.gov](http://www.census.gov).

**Indicator 20: Unemployment by Education Level**

U.S. Census Bureau, 2006 American Community Survey.

**Indicator 21: Other Benefits of Higher Education**

Institute for Higher Education Policy, February 2005, *The Investment Payoff: A 50-State Analysis of the Public and Private Benefits of Higher Education*.

[www.ihep.org/Pubs/PDF/InvestmentPayoff2005.pdf](http://www.ihep.org/Pubs/PDF/InvestmentPayoff2005.pdf)

**Appendix 1: Background Demographics**

1990 and 2000 population data are actual counts from the decennial U.S. Census. 2006 data are estimates based on the 2006 American Community Survey. Projections for 2010 and 2015 are from the Maine State Planning Office at [www.state.me.us/spo/economics/economics/forecasts.php](http://www.state.me.us/spo/economics/economics/forecasts.php).

Data on student migration are from NCES IPEDS. See *Enrollment in Postsecondary Institutions, Fall 2004* and *Financial Statistics, Fiscal Year 2004* at

<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006155> for 2004 data, the *Enrollment in Postsecondary Institutions, Fall 2002* and *Financial Statistics, Fiscal Year 2002* at

<http://www.nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005168> for 2002 data and the Digest of Education Statistics 2002 and 2000 at <http://nces.ed.gov/programs/digest> for 2000 and 1998.

Data on college educated young adults are from *Net Migration for the Young, Single, and College Educated for the United States, Regions, States, and Metropolitan Areas: 2000* at

[www.census.gov/population/www/cen2000/phc-t34.html](http://www.census.gov/population/www/cen2000/phc-t34.html)

Maine Youth Migration Profiles 1995-2000, Prepared for REALIZE!Maine, by Charles S. Colgan of the University of Southern Maine and Joyce Benson of the Maine State Planning Office.

[www.maine.gov/governor/baldacci/news/events/Realize!/issue\\_papers/index.htm](http://www.maine.gov/governor/baldacci/news/events/Realize!/issue_papers/index.htm)

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Any mistakes are those of the authors.

## **CITING INFORMATION IN THIS REPORT**

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## **ON THE WEB**

*Indicators of Higher Education Attainment in Maine* is available at the website of the Maine Compact for Higher Education as a PDF file for easy download and printing. Visit the Compact's website at [www.collegeforme.com](http://www.collegeforme.com).



# Maine Compact for Higher Education – Fact Sheet

**Greater Expectations.** Maine's higher education challenge is well known and well documented: Maine's working age adults have one of the highest high school completion rates -- and the lowest overall postsecondary attainment levels -- in New England. We know our students are not fulfilling their potential when their education stops with a high school diploma. And we know that a 21<sup>st</sup> century economy requires a highly educated workforce.

The Maine Community Foundation and the Maine Development Foundation created the Maine Compact for Higher Education in 2003 to dramatically increase Maine's educational attainment levels by implementing five action strategies. The Compact is implementing those strategies. In 2008, the Compact was asked to help create and administer the new Alford Scholarship Foundation, organized to support the Harold Alford College Challenge.

**The Compact's vision** is that a college education is a right and responsibility of all Maine people.

**The Compact's mission** is to champion higher education achievement by: providing a consistent and unified voice that promotes the vision; changing the attitudes and values of Maine people regarding higher education; implementing the action strategies; and promoting innovation, best practice, and accountability for results.

**The Compact's goal** is that Maine people will be among the best educated in America. Today, only 37% of Maine's working-aged adults have an associate, bachelors, or graduate degree – compared with 46% for New England. Our aim is to match the New England percentage in 13 years – this will require an additional 40,000 new college degree holders above projections by 2020.

**Action Strategies** to achieve the goal are:

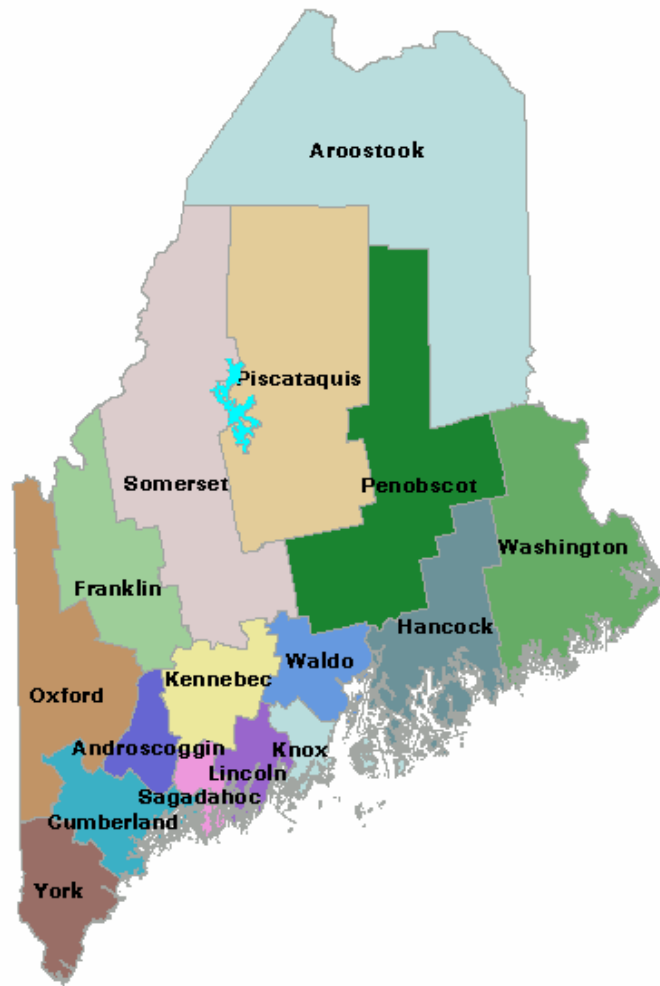
1. *Scholarship program* to ensure that no Maine student is denied college for financial reasons.
2. *Early College efforts* to encourage students to continue their education beyond high school.
3. *College Transition program* to help adults earn degrees.
4. *Employer Initiative* to help employers support the education of their workforce.
5. *Campaign* to change the values and behaviors of Maine people regarding higher education.

**The new Harold Alford College Challenge** will provide every child born in Maine with a \$500 college savings fund, and challenge parents and families to save toward that child's education. The Compact will administer the new Alford Scholarship Foundation, created to provide the incentive scholarship grants through Maine's NextGen 529 College Investing Plan, which is administered and delivered by the Finance Authority of Maine.

**Other Compact initiatives** include: the annual *Maine Symposium on Higher Education* in August, the annual *Indicators of Higher Education Attainment* report to assess progress toward our goal, and launch of the new *Leadership Program for Educational Achievement* in the planning stages.

**Organization.** The Compact's board of directors is composed of education, business, community and government leaders from throughout the state. Joseph Foley, senior vice president and chief marketing officer of Unum, is chair of the Board of Directors. The Compact is a non-profit corporation with an IRS 501c3 designation.

**Funding** for the Compact and its strategies is from: the Alford Scholarship Foundation, Cianbro Corporation, Ford Foundation, Great Schools Partnership, Joseph F. Boulos, Libra Foundation, Lumina Foundation for Education, Maine Community Foundation, Maine Educational Loan Authority, MELMAC Education Foundation, National Governors Association, Maine Department of Education, Nellie Mae Education Foundation, TD Banknorth, N.A., and Unum. The original \$1 million investment in our 2003-2007 business plan has leveraged over \$2 million to support programs.



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Maine Compact for Higher Education was founded by the  
Maine Development Foundation and Maine Community Foundation.