

Thriving, Diverse and Sustainable Economy

Education

Building Human Capital

What are the Most Important Goals?

- *Informed populace*
- *Visionary leaders*
- *Engaged institutions*
- *Accessible services*
- *Good health*
- *Creative economy*
- *Continuous education*
- *Integrated infrastructure*

What is this Indicator?

This indicator measures our progress in cultivating an educated workforce. Specifically, it measures the amount of public expenditure we are investing in our high school students; the percentage of high school seniors planning on attending either a two-year or four-year college after graduation; the types of degree programs that high school graduates enroll in at our regional community college; how many of those students graduate from the college; and how many continue their advanced education at a four-year college or university.

Why is this Indicator Important?

Education is the means by which we pass on our skills, training and wisdom to future generations. Through education we teach our future workforce and government leaders, expand our horizons, and develop creativity, as well as generate more economic opportunities and potential earnings. The greater our ability to educate our students, to provide them with the means to be economically successful, and to encourage them to utilize their skills, the greater our ability to be self-sustaining.

Analysis of Data

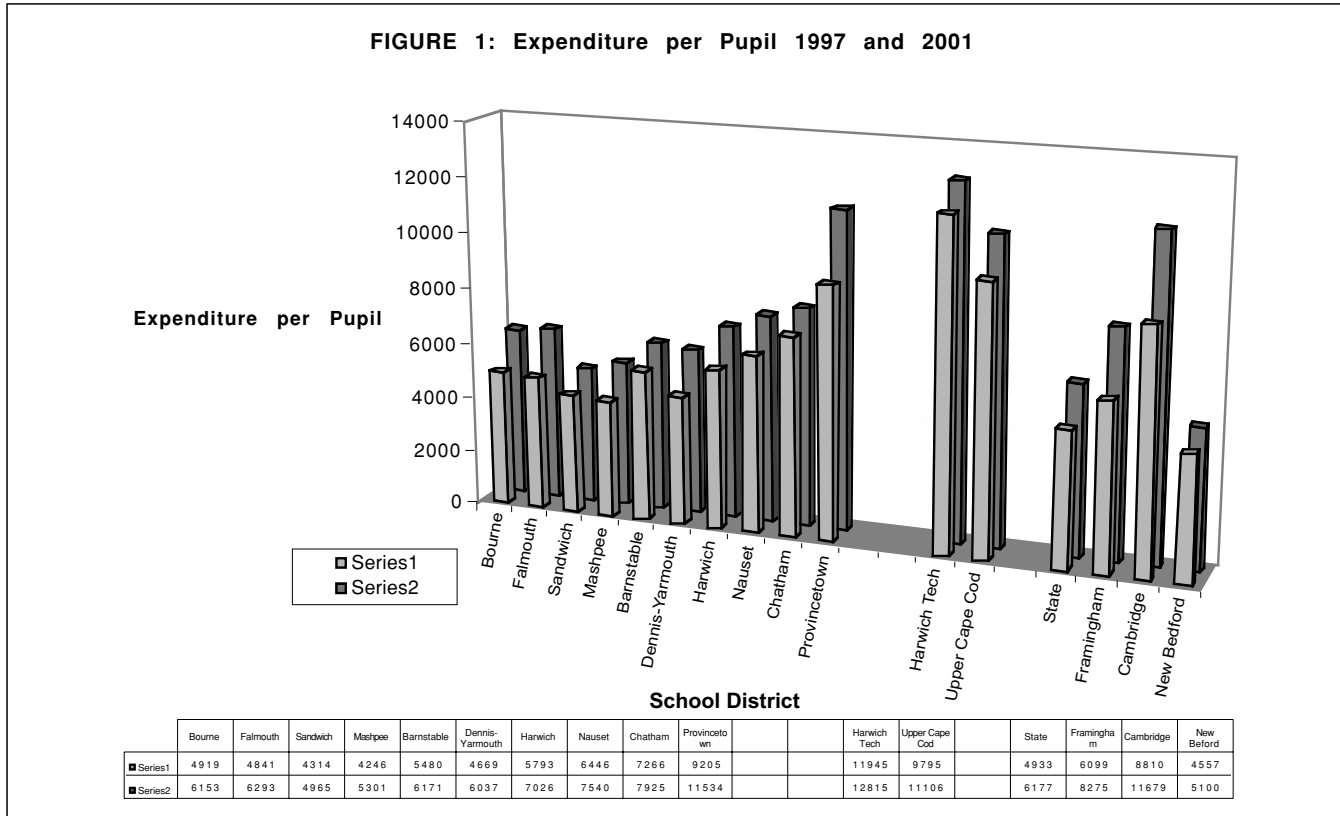
Per-Pupil Expenditure

Figure 1 indicates that per-pupil expenditures for 1997, for regular day students¹ enrolled in the ten non-vocational high school districts on Cape Cod, range from \$4,246 in Mashpee to \$6,446 in Nauset. For 2001, the range is from \$4,965 in Sandwich to \$7,540 in Nauset. (Figures for the two vocational schools are higher due to the concentration of special education students in both schools and their associated costs.)

Comparing these figures to statewide per-pupil expenditures of \$4,933 in 1997 and \$6,177 in 2001, we see that five out of ten districts in Barnstable County spent less per pupil than the state during both years.

Per-pupil expenditures in Barnstable County were also compared with expenditures in Framingham, Cambridge and New Bedford. As might be expected, per-pupil expenditures in both Framingham and Cambridge in 1997 and 2001 are significantly higher than all ten non-vocational districts in Barnstable County with the exception of Nauset in 1997. On the other hand, we see that per-pupil expenditures in New Bedford align closely with half of Barnstable County towns in 1997. By 2001, increases in per-pupil expenditures in Barnstable County elevated spending above New Bedford levels in most districts.

Figure 1.
Expenditure Per Pupil 1997 and 2001



Source: Expenditure per pupil 1997 and 2001, Massachusetts' Department of Education, Five Year Trends by District

What Can We Do?

■ **Individuals:**

- Support local and regional efforts to improve the quality of education.
- Emphasize the importance of education within our households.
- Volunteer for tutoring, after-school enrichment activities, school-based programs.
- Develop an understanding of the policy positions of candidates for elected office relative to local education and workforce issues.

Percentage of Students Planning to Attend College

Using 2001 data, Figure 2 documents the percentage of high school seniors planning to attend either a two-year or four-year college upon graduating from high school. The table also includes percentages for those students planning on seeking work upon graduation.

The table demonstrates that in all districts except Barnstable, 51% or more of enrolled students plan on attending a four-year college. Barnstable, though the largest school in terms of enrollment, had the lowest percentage (49.6%) of students planning on attending a four-year college, while Provincetown had the highest percentage (66.7%). Provincetown also had the second lowest percentage of students planning on attending a two-year school. Harwich was unusual in that it had a low percentage of students planning on attending either a four-year or two-year school but the highest percentage of students planning on seeking work.

Figure 2.
Percent of High School Students Planning to Attend College or Work

4-year College	%	2-year College	%	Work	%	Rank
Provincetown High	66.7	Bourne High	26.7	Harwich High	35.6	1
Sandwich High	65.1	Dennis-Yarmouth High	25.8	Provincetown High	16.7	2
Nauset Regional High	63.1	Barnstable High	25.6	Barnstable High	16.6	3
Bourne High	62.9	Chatham High	23.8	Nauset Regional High	14.7	4
Mashpee High	61.6	Mashpee High	23.2	Sandwich High	12.9	5
Falmouth High	60.5	Nauset Regional High	20.7	Mashpee High	12.1	6
Dennis-Yarmouth High	59.7	Falmouth High	18.9	Dennis-Yarmouth High	11.8	7
Chatham High	57.1	Sandwich High	17.2	Falmouth High	9.4	8
Harwich High	51.0	Provincetown High	12.5	Bourne High	8.6	9
Barnstable High	49.6	Harwich High	11.5	Chatham High	2.4	10
State	53.6	State	21.5	State	14	

Source: 2001 Plans of High School Graduates, Massachusetts' Department of Education, Other Data

- *Donate to causes and institutions that advance the growth of human capital through the education, knowledge and expertise that they impart.*

■ **Communities:**

- *Support school budgets that offer the greatest range of instruction and curriculum possible.*
- *Develop community-based events and activities that encourage learning.*
- *Acknowledge those businesses that contribute to the base of human capital through the knowledge and innovation they bring to the community.*
- *Support community leaders who understand the importance of human capital and its effect on the standard of living of residents of the community.*
- *Support the creation of a four-year college institution.*

Statewide, 53.6% of graduating seniors indicated that they planned to attend a four-year college and 21.5% indicated they planned to attend a two-year college. In Framingham 66.2% and in Cambridge 64.8% of the graduating seniors indicated they were planning on attending a four-year school, while in New Bedford only 28.4% of the graduating seniors indicated they would attend a four-year school.

Cape Cod Community College Degree/Certificate Programs

Cape Cod Community College is a major education and training resource for those seeking to improve their skills and acquire well-paying jobs and mobility within the workforce. The college offers an Associate in Arts (A.A.) degree, several Associate in Science (A.S.) degrees, and numerous “certificate” programs. Students who pursue an Associate in Arts degree commonly end up transferring from the community college to a four-year college in pursuit of more advanced degrees. Students who matriculate and choose to pursue an Associate in Science degree program or one of the certificate programs tend not to pursue advanced degrees elsewhere. A primary reason for this is that coursework within the Associate in Science degree program area, as well as the certificate programs, provides practical training for many technical jobs offered on the Cape, such as nursing and criminal justice. Students who obtain either an A.S. degree or a certificate thus tend to seek employment immediately upon graduation.

Matriculation and graduation data for the two major degree areas and the certificate programs provide insight into the types of skills that students in the college are acquiring. This information can tell us something about the quality and diversity of the existing workforce as well as that of the workforce of the future.

In both 1998 and 2001, approximately 75% of those who enrolled in one or more concentrations falling under the A.A. degree umbrella were in five areas: liberal arts, science/math and pre-engineering, psychology, business administration, and education—all broad subject areas that create a good foundation for students planning to continue studying elsewhere.

■ Decision-makers

- *Remain informed about human-capital issues in your community and their effect on the composition of businesses, wages, and overall self-sufficiency of local residents.*
- *Support educational initiatives.*
- *Encourage the hiring of people who are likely to introduce new ideas and innovation into the workplace.*
- *Nurture the acquisition of new skills and new ideas.*
- *Consult expert opinion and take advantage of up-to-date research and information when formulating policies and decisions.*
- *Support the creation of a four-year college institution.*

In 1998 and 2001, close to 50% of those students pursuing an A.A. degree area had chosen what is generically referred to as knowledge-intensive areas of study². These areas include mass communications, science/math/pre-engineering, business administration, accounting, education, engineering science, environmental studies, public relations, communication, and graphic design.

In 2001, in the Associate in Science degree area, students tended to be clustered around nursing, hospitality, criminal justice, and information technology. In 2001, for example, 238 or 25% of all A.S. degree seekers were in information technology. This represents nearly a threefold increase over 1998 enrollments in this area.

In any given year there are upwards of 3,000 degree-seeking students. In addition, there are roughly 2,000 non-matriculated students. Only a small percentage graduate with an A.A. degree, A.S. degree or certificate in any given year. In the fall of 2001, for example, there were 3,063 degree seeking students enrolled in the college. In the spring of 2001, 11% of them (333) received either an A.A. degree (125), an A.S. degree (164) or a certificate (44). This reflects the nature of the community college mission, which is designed to offer a flexible academic menu to a socioeconomically diverse regional audience with different educational needs. Many students at the college are older and already employed and therefore interested only in the occasional course to boost their skills. Some are pursuing formal degrees but can only attend the college on a part-time basis due to their daytime work. Others are enrolled full-time.

When the spring 2001 graduates were queried a year later to determine their career status, it was discovered that 82% of the 125 graduates who received an A. A. degree were enrolled in a four-year institution of higher learning. Of these, 103 students, or nearly 50%, had matriculated into the University of Massachusetts system and 15.5% (16) had enrolled at Bridgewater State College.

Educational Attainment: U.S. Census 2000

The general perception is that Barnstable County has a relatively high degree of educational attainment. An examination of U. S. Census figures by age, however, belies this point. Barnstable County ranked 12th out of the 14 counties in Massachusetts for 18- to 24-year-olds enrolled in college or graduate school. Barnstable County ranked 10th out of 14 for 25- to 34-year-olds with a bachelor's degree or higher. The county ranks far behind Massachusetts as whole on both of these measures.

An examination of those residents 25 years and older, however, shows that Barnstable County has the highest percentage population with a high school diploma or more, and that it ranks fifth for residents 25 years and older having a bachelor's degree or higher. One can conclude that the overall population of Barnstable County is indeed highly educated but that the younger generation of working adults lacks educational achievement. An explanation for the discrepancy may lie with the statistical effect of educated retirees.

*What is now proved was
once imagined.*

—William Blake

*In every deliberation, we
must consider the impact
of our decision on the
next seven generations.*

—Great Law of the
Hau de no sau nee (Iroquois Nation)

What Connections Does this Indicator Have?

■ *Economic*

A quality education at both the K-12 and college levels is required for the development of a sustainable economy. A healthy educational system is necessary for cultivating a skilled workforce, fostering innovation, encouraging entrepreneurs, developing career paths, stimulating intellectual inquiry and research, and providing the foundation for the growth of livable-wage jobs. Education is particularly important in an economy which has historically been constrained by low-wage jobs, for education is essential to developing higher-wage jobs. It is a primary catalyst for personal ambition and achievement. Innovation and sustainable business development strategies and practices rely on education. In short, education is the basic ingredient for a strong, sustainable economy.

■ *Social*

An educated citizenry is better able to care for the panorama of social needs that affect a community. Educated citizens are more apt to adopt a self-critical stance, identify problems, and develop solutions. Educated workers encourage the creation of livable-wage jobs that offer good benefits like medical and dental coverage and retirement savings plans, thus reducing the community's need to provide social subsidies. They are also more likely to start their own businesses and create livable-wage jobs. A spirit of teamwork and sharing of ideas and resources is more likely to pervade an educated community, leading to greater community collaboration. An educated community is also more likely to take advantage of good ideas that come from outside the community and to have an appreciation for how activities and events in the outside world can affect the health and behavior of the community.

■ *Environmental*

Education helps people to understand the delicate balance between economic activity and the quality of the environment. Education imparts knowledge about both the natural resource value and economic value of the environment. It provides the skills and knowledge necessary—both at the policy level and in terms of prevention and remediation—to deal with environmental issues in an intelligent manner. An educated community is also more likely to attract technically trained entrepreneurs who will develop environmentally friendly businesses and develop specialized products and services that address particular environmental issues.