



Facts

New High in Engineering Degree Production

Several of the state's key industry sectors depend heavily on employees with advanced scientific, analytic and technical knowledge. Among the fields closely related to these sectors, engineering degrees have posted the largest gain.

1. 2009 represented a record high for engineering degrees.

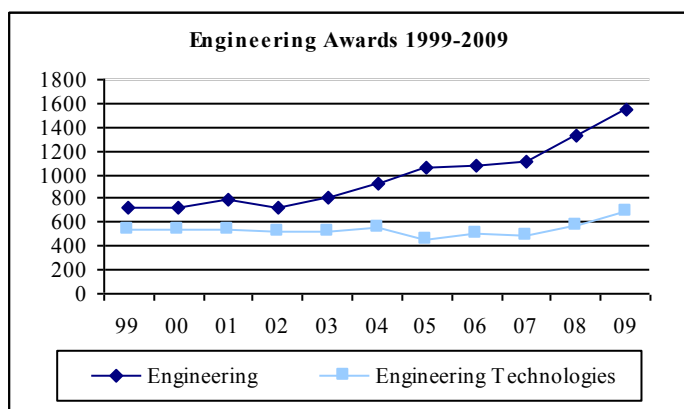
- There were 1,547 engineering degrees awarded in 2009 with the largest increase in Master's degrees. The total represents an increase of 15.4% over 2008 and 66.2% in the last five years. More than half of the growth in the last five years has been at the University of Bridgeport, largely in Master's degrees awarded to international students. This year's engineering degrees exceeded the 1985 record of 1,486, although the 2009 numbers represent 4.1% of total degrees compared to 5.5% in 1985.
- Engineering technologies is a set of programs related to engineering and producing an additional set of credentials. In recent years, there has been rapid growth in this field as demand for technology-related credentials increases. In 2009, there were 683 engineering technology credentials awarded with the largest increase at the University of Bridgeport. Technology awards increased 19% over 2008 and 24% in the last five years. They represent 1.8% of total awards.

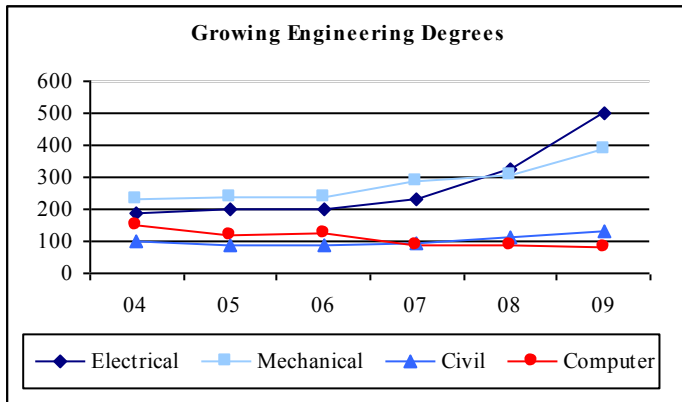
2. Engineering degrees encompass a wide range of programs.

- There are 19 engineering programs in which degrees are offered in Connecticut:

	<u>Graduates</u>
General Engineering	33
Biomedical Engineering	88
Chemical Engineering	63
Civil Engineering	129
Computer Engineering	82
Computer Software	0
Electrical Engineering	503
Engineering Physics	12
Engineering Science	85
Environmental Engineering	39
Materials Engineering	18
Mechanical Engineering	388
Metalurgical Engineering	14
Naval Architecture	20
Materials Science	2
Industrial Engineering	40
Manufacturing Engineering	0
Operations Research	28
Other Engineering	3

- These programs are offered across 24 institutions, including the 12 community colleges. The University of Connecticut offers the highest number of programs at 13 with 426 degrees awarded in 2009. The University of New Haven is second offering ten programs with 130 degrees awarded. The University of Bridgeport awarded the highest number of engineering degrees in 2009 with 431, more than half in electrical, electronics and communications engineering.





- The three fastest growing programs in 2009 (electrical, mechanical and civil) are depicted above along with computer engineering. While there is significant growth in electrical and mechanical engineering degrees along with modest growth in civil engineering, there is a significant drop in computer engineering degrees shown in red. Computer engineering was included because a review of the Occupational Supply and Demand System¹ indicates that the demand for computer engineering credentials in Connecticut far exceeds the supply.

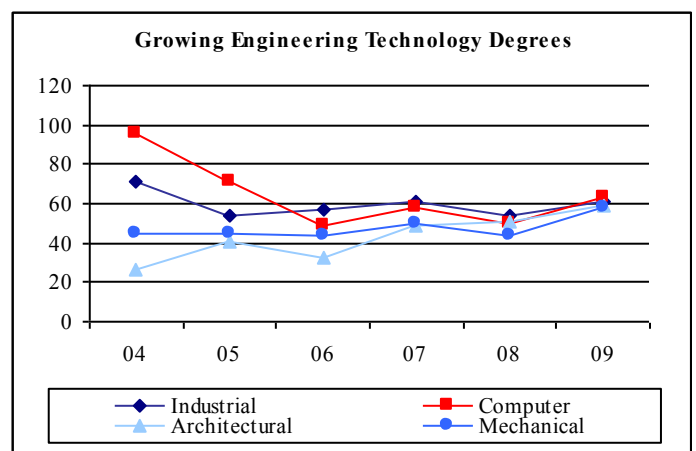
3. Engineering technologies are expanding through new programs.

- There are 27 technology programs in which degrees are offered in Connecticut:

	Graduates
General Engineering	118
Architectural Engineering	59
Civil Engineering	18
Electrical Communications	20
Laser/Optical	6
Telecommunications	0
Electrical Engineering	26
Biomedical Engineering	1
Environmental Engineering	12
Hazardous Materials	0
Environmental Control	1
Plastics	1
Industrial Engineering	61
Manufacturing	11
Industrial Production	0
Occupational Safety	5

	Graduates
Quality Control	0
Aeronautical	0
Automotive	29
Mechanical	58
Engineering-related	0
Computer Engineering	63
Computer Technology	10
Architectural Drafting	16
Mechanical Drafting	19
Engineering Management	137
Engineering Technologies	12

- These programs are offered across 17 institutions, including the 12 community colleges. Naugatuck Valley Community College offers the most programs at 14 and made 49 awards in 2009, three certificates and 25 Associate's degrees in computer engineering technology. Central Connecticut State University offers six programs and made 119 awards, 29 in mechanical engineering technology. The University of Bridgeport awarded 135 Master's degrees, all in the relatively new engineering/industrial management.
- The chart below displays the four programs (industrial, architectural, mechanical and computer) with about 60 awards in 2009. These programs are tied for third in the number of awards, but display an interesting pattern over the last five years. Architectural engineering technology came from a low of about 20 to 59, while computer engineering technology came from a high of almost 100 to 63. Although the decline in computer-related awards is consistent with the end of the dot-com bubble, demand for computer credentials is growing in Connecticut.



¹ The Occupational Supply and Demand System is a system designed for the U. S. Department of Labor that provides information to assist with the analysis and discussion of issues relevant to today's labor market. It is available at www.occsupplydemand.org.