

Engineering Bachelor's Degree Production Dips Slightly in 2007

The number of baccalaureate degrees awarded in engineering dipped slightly in 2007 to 75,486, a 0.8% drop from 76,103 in 2006, according to *Engineering & Technology Degrees, 2007*, a new report from the Engineering Workforce Commission (EWC).

Engineering baccalaureate degree production increased each year from 1999 to 2004, and has hovered near 75,000 since 2003 (see chart).

The number of master's degrees awarded in engineering dropped 1.7% in 2007, following a 6.4% decrease in 2006. A total of 37,803 engineering master's degrees were awarded in engineering in 2006, down from 38,451 in 2006 and the record high of 41,087 in 2005.

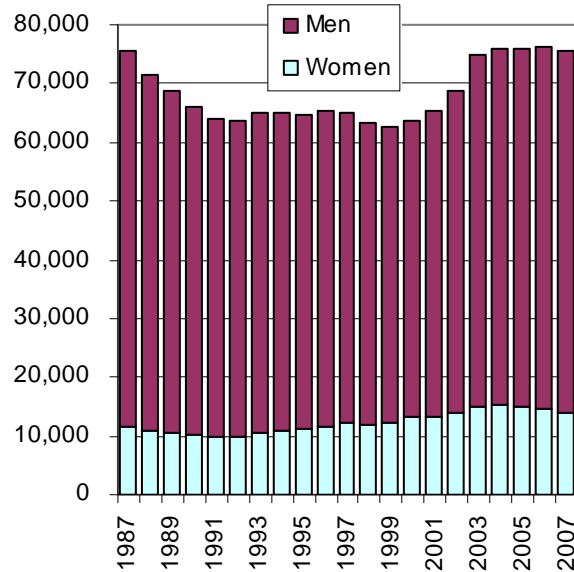
The number of engineering doctorates rose again in 2007, increasing 6.1% to a record 8,612 from 8,116 the previous year. This follows an 11.5% increase in 2006 and an 11.9% increase in 2005.

Mechanical engineering was the largest discipline at the bachelor's degree level, with a total of 16,131 mechanical engineering baccalaureates granted in 2007, up 2.8% from 15,698 in 2006. Electrical/electronic engineering was the second most popular engineering discipline in 2007, with 13,740 bachelor's degrees awarded. The third and fourth most popular disciplines were computer engineering (13,171 degrees) and civil engineering (9,862 degrees). For the tenth consecutive year, the number of bachelor's degrees awarded in chemical engineering (the fifth most popular engineering discipline) declined, falling to 4,575 in 2007, down slightly from 4,590 in 2006.

Women were most highly represented in environmental engineering and bioengineering at the bachelor's level in 2007, earning 42.6% and 40.0% respectively of the degrees awarded. They were least represented in mechanical engineering and computer engineering, earning just 12.4% of the bachelor's degrees in each of these disciplines.

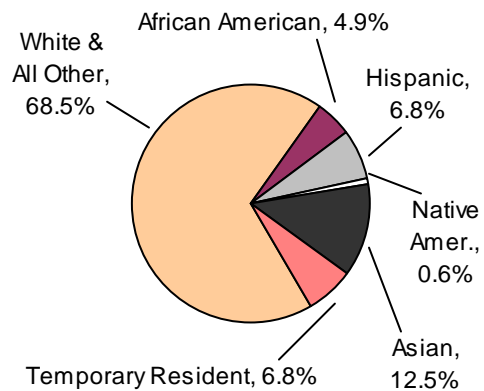
Overall, women earned 14,046 bachelor's degrees in engineering in 2007, down 4.1% from 14,654 in 2006. Women were responsible for nearly all of the overall decline in engineering bachelor's degree production between 2006 and 2007. The number of degrees awarded to women

Engineering Bachelor's Degrees by Sex, 1987 to 2007



Source: CPST, data derived from Engineering Workforce Commission

Distribution of Bachelor's Degrees in Engineering by Race/Ethnicity, 2007



Source: CPST, data derived from Engineering Workforce Commission

dropped by 608, while the number awarded to men fell by just nine degrees.

The share of engineering baccalaureates earned by women dropped to 18.6% in 2007, down from 19.3% in 2006 and 19.6% in 2005. The 2007 share is the smallest since 1998.

At the master's level, women earned 8,393 engineering degrees in 2007, down from 8,731 in 1996. Their share of engineering master's degrees fell as well from 22.7% in 2006 to 22.2% in 2007.

At the doctorate level, women earned 1,688 engineering degrees, up from 1,592 in 2006. Their share remained at 9.6% in 2007, as in 2006.

While women are currently faring better at the graduate level in their share of degrees earned, there is reason for concern given the decline in the number of women earning degrees in engineering at the bachelor's level.

Hispanics earned more degrees at the bachelor's level in 2007 than they did in 2006, with a 3.4% increase from 4,957 to 5,126. African Americans saw a slight increase, from 3,673 in 2006 to 3,698 in 2007. Overall, underrepresented minorities (Hispanics, African Americans and Native Americans) earned 9,246 engineering baccalaureates in 2007, up 1.8% from 9,086 in 2006. Their share of all engineering bachelor's degrees in 2007 was 12.3% (see chart on previous page), up from 11.9% in 2006. Asians earned 12.5% of the engineering bachelor's degrees in 2007, non-U.S. citizens on temporary visas earned 6.8%, and whites and all others earned 68.5%.

At the master's level, underrepresented minorities earned 6.5% of the engineering degrees in 2007, up from 6.0% in 2006. Asians earned 10.6% of the master's degrees, up from 10.4% the previous year; non-U.S. citizens on temporary visas earned 38.6%, down from 40.2% in 2006; and whites and all others earned 44.3%, up from 43.4% in 2006.

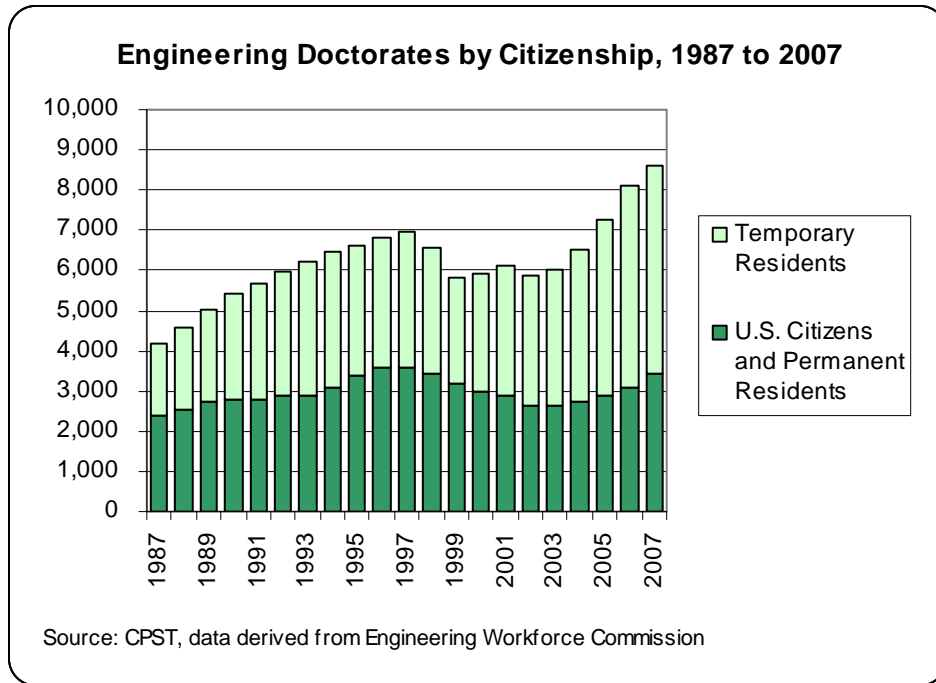
At the doctorate level, underrepresented minorities earned 3.0% of the engineering degrees in 2007, up from 2.8% in 2006. Asians earned 5.0% of the doctorates in 2007, down from 6.1% in 2006; non-U.S. citizens on temporary visas earned 60.1%, down from 62.2% the previous year, and whites and all others earned 31.9% of the engineering doctorates, up from 28.8% in 2006.

Much of the growth in engineering degree production at the doctorate level continues to be the result of increases in the number of degrees awarded to non-U.S. citizens on temporary visas. In 2007 temporary residents earned 5,178 engineering doctorates, while twenty years earlier in 1987, they earned just 1,800

Race/Ethnicity	2007		2006 Total
	Total	% Wom.	
Bachelor's			
Total	75,486	18.6	76,103
African American	3,698	30.4	3,673
Hispanic American	5,126	23.7	4,957
Native American	422	30.1	456
Asian American	9,454	23.6	9,719
Temp. Resident	5,102	20.5	5,354
Master's			
Total	37,803	22.2	38,451
African American	1,078	33.3	1,009
Hispanic American	1,292	26.0	1,185
Native American	81	25.9	128
Asian American	3,995	28.5	3,990
Temp. Resident	14,604	23.0	15,441
PhD			
Total	8,612	19.6	8,116
African American	122	32.0	121
Hispanic American	120	28.3	99
Native American	15	26.7	11
Asian American	432	25.2	496
Temp. Resident	5,178	18.2	5,048

Source: CPST, data derived from Engineering Workforce Commission

(see chart). Their share of the degrees awarded increased over the time period as well, from 43.1% in 1987 to 60.1% in 2007.



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