

US STEM Degree Production in International Context

Among the 32 OECD member nations, the United States produces the most first university degrees at just over 1.4 million degrees awarded in 2004. Japan ranked second at 774,769 degrees. Brazil, which is an “enhanced engagement country,” ranked third amongst the nations with comparable and reliable data on first university degrees with 466,260 degree recipients in 2002.

The first table shows the number of degrees awarded in selected broad fields by gender in each of these three countries. The relative importance of the science and engineering fields varied across these three nations. In Japan, degrees in science and engineering accounted for 57% of all first university degrees while in the United States, these fields accounted for just 32% of degrees and in Brazil, 20% of first university degrees. Indeed, in terms of total numbers, Japan’s production of science and engineering first university degrees barely lagged that of the United States.

The second chart shows the distribution of women and men across the various broad fields varied in each of the three large degree-producing nations. Even though women accounted for nearly one-in-five engineering degrees in the United States and just one-in-ten in Japan, because of the overall larger representation of students in engineering in Japan versus the United States, Japanese women were more likely than their U.S. (or Brazilian) counterparts to select engineering. In general, for both men and women and in each of the three nations, “Agricultural Sciences” tends to have the proportionately lowest number of first university degrees.

Number of First University Degrees in Selected Broad Fields				
		United States	Japan	Brazil (2002)
All First University Degrees	Women	810,817	225,872	293,309
	Men	596,192	548,897	172,951
All Science & Engineering	Women	229,939	92,968	42,016
	Men	225,909	351,299	50,025
Physical/Biological Sciences ¹	Women	48,089	5,358	8,491
	Men	34,816	19,727	6,048
Math/Computer Sciences	Women	20,724	N/A	6,695
	Men	50,436	N/A	14,436
Agricultural Sciences	Women	8,714	6,771	1,568
	Men	8,327	15,865	3,344
Social/Behavioral Sciences	Women	139,155	69,784	16,631
	Men	80,912	217,276	6,804
Engineering	Women	13,257	11,055	8,631
	Men	51,418	98,431	19,393

Notes: N/A = data not available. A first university degree is equivalent to a bachelor's degree.
¹ Includes physical, biological, earth, atmospheric and ocean sciences.

Source: CPST, data derived from National Science Foundation, *Science & Engineering Indicators*, 2008.

Within Sex Distribution of First University Degrees						
	Women			Men		
	US	Japan	Brazil (2002)	US	Japan	Brazil (2002)
All Science & Engineering	28.4%	41.2%	14.3%	37.9%	64.0%	28.9%
Physical/ Biological Sciences(1)	5.9%	2.4%	2.9%	5.8%	3.6%	3.5%
Math/Computer Sciences	2.6%	N/A	2.3%	8.5%	N/A	8.3%
Agricultural Sciences	1.1%	3.0%	0.5%	1.4%	2.9%	1.9%
Social/Behavioral Sciences	17.2%	30.9%	5.7%	13.6%	39.6%	3.9%
Engineering	1.6%	4.9%	2.9%	8.6%	17.9%	11.2%
Total First University Degrees	810,817	225,872	293,309	596,192	548,897	172,951

Percents shown are computed WITHIN each sex group. For example, 1.6% of women who earned 1st university degrees in the US did so in engineering versus 4.9% of Japanese women.

Note: (1) Includes physical, biological, earth, atmospheric and ocean sciences.

Source: CPST, data derived from National Science Foundation, *Science & Engineering Indicators, 2008*.

On the Web: NSF's *Science and Engineering Indicators*: <http://www.nsf.gov/statistics/seind08/>
 For more information about the OECD: http://www.oecd.org/home/0,3305,en_2649_201185_1_1_1_1_1,00.html

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