Nuclear Engineering Enrollments and Degrees Survey, 2014 Data

Number 74 Oak Ridge Institute for Science and Education 2015

SURVEY UNIVERSE

The 2014 survey includes degrees granted between September 1, 2013 and August 31, 2014, and enrollments for fall 2014. There are three academic programs new to this year's survey. Thirty-five academic programs reported having nuclear engineering programs during 2014, and data were provided by all thirty-five. The enrollments and degrees data include students majoring in nuclear engineering or in an option program equivalent to a major. Two nuclear engineering programs have indicated that health physics option enrollments and degrees are also reported in the health physics enrollments and degrees survey.

DEGREE DATA

Bachelor's Degrees. The number of B.S. degrees in 2014 awarded by nuclear engineering programs decreased after four years of increases and is 4 percent less than in 2013. (Table 1) The number of B.S. degrees in 2014 is significantly greater than the numbers reported at the beginning of the decade and more than twice the number reported in 2005 but remains 25 percent below the peak years of the late 1970s. Nuclear engineering majors accounted for 94 percent of all B.S. degrees. (Table 2)

Graduate Degrees. The number of master's degrees in 2014 decreased by 11 percent from 2013 and is 3 percent fewer than in 2012. The number of M.S. degrees in 2014 was greater than the numbers reported at the beginning of the decade and 88 percent greater than the number reported in 2005. The number of doctorate degrees increased in 2014 for the third consecutive year and is the third highest reported since 1966. (Table 1) The number of master's degrees is within the range predicted from recent graduate enrollment data trends that have fluctuated somewhat but remained relatively high after increasing from 2001 through 2010. Nuclear engineering majors accounted for 93 percent of the M.S. degrees and 100 percent of the Ph.D. degrees. (Table 2)

Table 1. Nuclear Engineering Degrees, 2005-2014

	Degrees		
Year	B.S.	M.S.	Ph.D.
2014	627	322	169
2013	655	362	147
2012	610	333	119
2011	524	277	113
2010	443	303	113
2009	395	233	87
2008	454	260	127
2007	413	227	89
2006	346	214	70
2005	268	171	74

Source: Oak Ridge Institute for Science and Education

Table 2. Nuclear Engineering Degrees by Curriculum, 2014

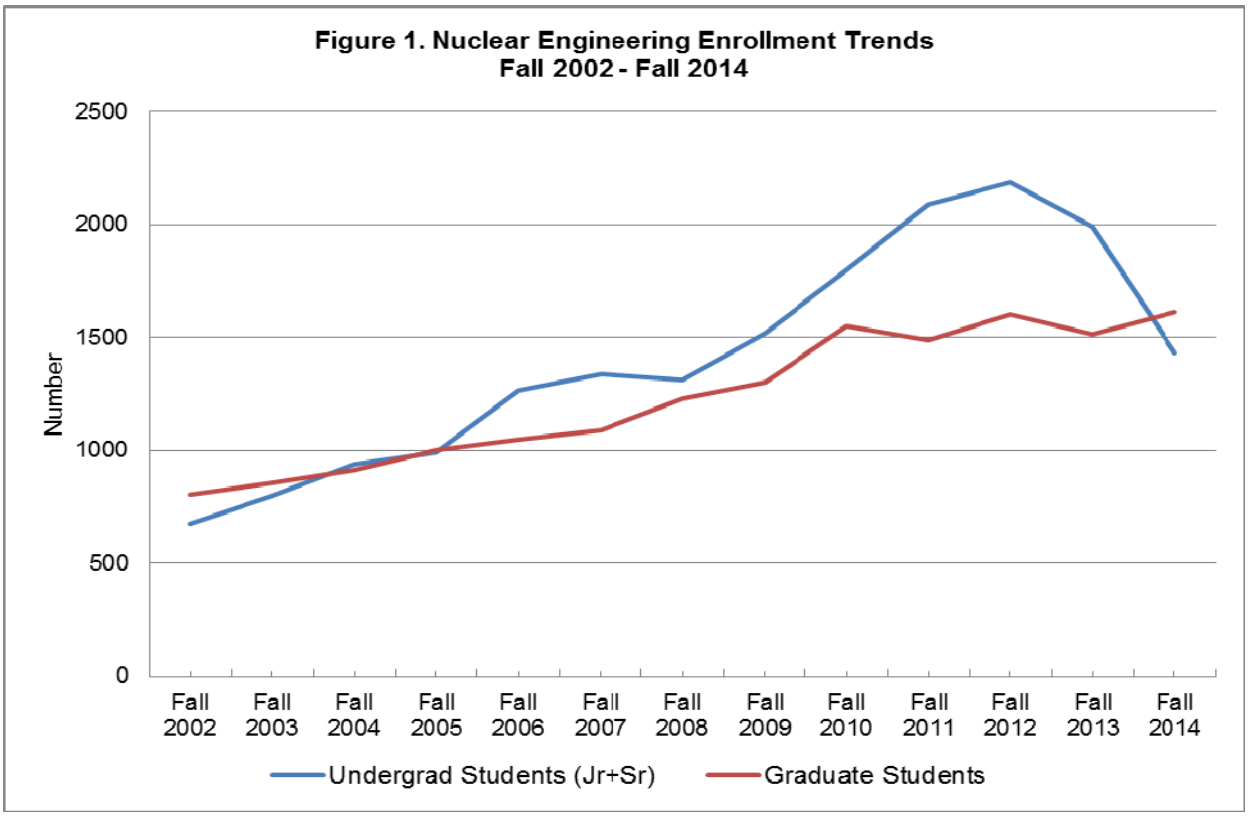
Curriculum	B.S.	M.S.	Ph.D.
Nuclear Engineering Major	589	299	169
Nuclear Engineering Option	38	23	0

Source: Oak Ridge Institute for Science and Education

ENROLLMENT TRENDS AND SHORT-TERM OUTLOOK FOR DEGREE TRENDS (Figure 1)

Undergraduate Students. In 2014, the enrollment of junior and senior nuclear engineering undergraduate students was nearly 1,440 which is a decrease of 28 percent below the number reported in 2013 and more than one-third lower than 2012. Undergraduate enrollments in 2014 are similar to enrollment numbers last reported in 2008 and 2009. Undergraduate enrollment declines in 2014 were reported by three out of four departments reporting undergraduate enrollment for both 2013 and 2014. The large decrease in undergraduate enrollments will likely result in further decreases in the number of bachelor's degrees earned over the next year or two. The number of B.S. degrees could fall below 600 in 2015 and approach 500 by 2016.

Graduate Students. Graduate enrollment in 2014 was approximately 1,610 students which is 6 percent higher than in 2013, and nearly 1 percent higher than the enrollments reported in 2012. Graduate enrollments have rebounded substantially since 2001 but are still below the numbers reported from the mid-1970s. The continued strength in graduate enrollment indicates that the number of M.S. degrees may rebound from this year's decline, and Ph.D. degrees in the near future could remain close to the levels of the last two years.



Source: Oak Ridge Institute for Science and Education

CITIZENSHIP, GENDER, AND RACE/ETHNICITY OF DEGREE RECIPIENTS

Note that citizenship, gender, and race/ethnicity data were not reported for all degree recipients. Percentages for the B.S., M.S., and Ph.D. degrees are based on the 581 B.S. degrees, 303 M.S. degrees, and 168 Ph.D. degrees for which data was reported. (Table 3)

Citizenship. Non-U.S. citizens accounted for 5 percent of B.S. degree recipients, 15 percent of the M.S. degree recipients, and 33 percent of the Ph.D. degree recipients.

Gender. Females comprised 15 percent of the B.S. degree recipients, 19 percent of the M.S. degree recipients, and 12.5 percent of the Ph.D. recipients.

Race/Ethnicity. Among the B.S. degree recipients, 15 percent of the U.S. citizens were members of minority groups. U.S. citizen minority groups represented 12 percent of M.S. degree recipients and 13 percent of Ph.D. degree recipients.

Table 3. Citizenship, Gender, and Race/Ethnicity of Degree Recipients, 2014[1]

	B.S.		M.S.		Ph.D.	
	Female	Male	Female	Male	Female	Male
Non-U.S. Citizens	5	25	13	32	5	51
U.S. Citizens						
African/Black Americans	10	11	3	3	3	0
American Indians	2	3	1	0	0	0
Asian/Pacific Island Americans	6	27	4	6	2	6
Hispanic Americans	2	24	3	12	0	3
White/Caucasian Americans	60	388	28	177	11	80
Other or Unknown	3	15	5	16	0	7
Totals	**88**	**493**	**57**	**246**	**21**	**147**

[1]Citizenship, gender, and race/ethnicity data were not available for 46 B.S. degree recipients, 19 M.S. degree recipients, and 1 Ph.D. recipient.

Source: Oak Ridge Institute for Science and Education

Table 4. Nuclear Engineering Degrees, 2014, by Academic Institution

State	Name of Institution	Degrees Sept. 1, 2013 – Aug. 31, 2014 B.S.	M.S.	Ph.D.
CA	University of California, Berkeley	15	7	15
CO	Colorado School of Mines[1]	0	6	2
FL	University of Florida	27	5	3
GA	Georgia Institute of Technology	55	25	5
ID	Idaho State University	10	18	3
IL	University of Illinois at Urbana-Champaign	50	11	9
IN	Purdue University	34	9	10
KS	Kansas State University	11	0	1
MA	Massachusetts Institute of Technology	7	13	22
MA	University of Massachusetts, Lowell	6	3	0
MD	University of Maryland	0	0	0
ME	University of Maine	3	0	0
MI	University of Michigan	31	23	20
MO	Missouri University of Science and Technology	38	5	5
MO	University of Missouri - Columbia	2	1	2
NC	North Carolina State University	29	24	6
NM	University of New Mexico	8	7	5
NV	University of Nevada, Las Vegas	0	1	0
NY	Rensselaer Polytechnic Institute	18	2	6
NY	United States Military Academy	16	0	0
OH	Air Force Institute of Technology	0	10	5
OH	Ohio State University	0	4	5
OH	University of Cincinnati	0	0	1
OR	Oregon State University	29	5	2
PA	Pennsylvania State University	88	32	7
PA	University of Pittsburgh[1]	0	6	0
SC	South Carolina State University	9	0	0
SC	University of South Carolina	0	7	0
TN	University of Tennessee	51	24	12
TX	Texas A&M University	54	19	8
TX	University of Texas at Austin	0	9	2
UT	University of Utah	0	5	1
VA	Virginia Commonwealth University	19	11	3
VA	Virginia Polytechnic Institute and State University[1]	0	10	0
WI	University of Wisconsin-Madison	17	20	9
Totals		**627**	**322**	**169**

[1]Nuclear engineering program added to 2014 survey.

Source: Oak Ridge Institute for Science and Education

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