

Nuclear Engineering Enrollments and Degrees Survey, 2013 Data

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SURVEY UNIVERSE

The survey includes degrees granted between September 1, 2012 and August 31, 2013. Enrollment information refers to the fall term 2013. The enrollments and degrees data include students majoring in nuclear engineering or in an option program equivalent to a major. Thirty-two academic programs reported having nuclear engineering programs during 2013, and data was received from all thirty-two programs. The data for two nuclear engineering programs include enrollments and degrees in health physics options that are also reported in the health physics enrollments and degrees data.

DEGREE DATA

Bachelor's Degrees. The number of B.S. degrees granted in 2013 was 7 percent higher than in 2012 and 25 percent higher than in 2011. (See Table 1.) The 2013 number of B.S. degrees is the highest number since 1984, but still 20 percent below the peak years in the late 1970s. Nuclear engineering majors accounted for 94 percent of all B.S. degrees. (See Table 2.)

Graduate Degrees. The number of M.S. degrees granted in 2013 was 9 percent higher than in 2012, and 31 percent higher than in 2011. The number of Ph.D. degrees granted in 2013 was 23.5 percent higher than in 2012 and 30 percent higher than in 2011. (See Table 1.) The 2013 number of M.S. degrees is the highest since 1980, and the 2013 number of Ph.D. degrees the highest since 1972. Nuclear engineering majors accounted for 98 percent of the M.S. degrees and 97 percent of the Ph.D. degrees. (See Table 2.)

Table 1. Nuclear Engineering Degrees, 2004-2013

Year	Degrees		
	B.S.	M.S.	Ph.D.
2013	655	362	147
2012 ¹	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
2004	219	154	175

¹2012 data for five programs estimated by ORISE. See the appendix for more information.

Source: Oak Ridge Institute for Science and Education.

Table 2. Nuclear Engineering Degrees by Curriculum, 2013

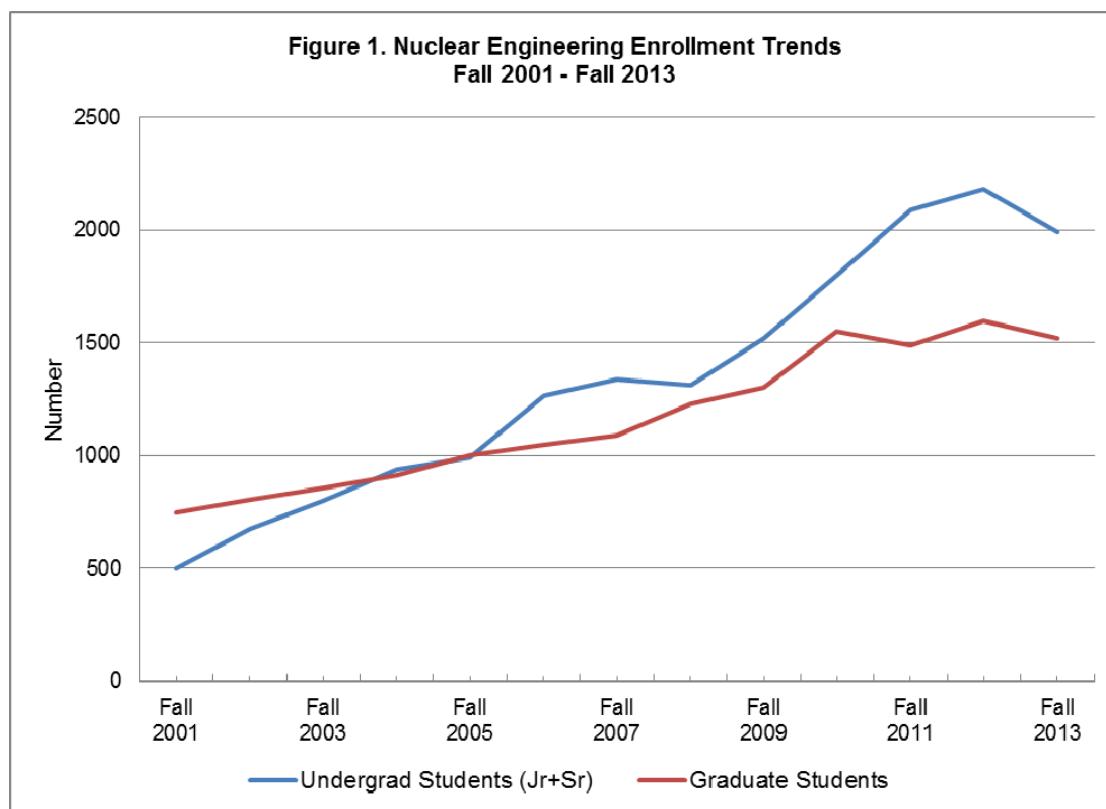
Curriculum	B.S.	M.S.	Ph.D.
Nuclear Engineering Major	615	355	142
Nuclear Engineering Option	40	7	5

Source: Oak Ridge Institute for Science and Education.

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

Undergraduate Students. In 2013, the reported enrollment of junior and senior undergraduates was approximately 1,990, a 9 percent decrease from 2012, and the first decrease reported (excepting 2008) since 1999. The undergraduate enrollment decrease in 2013 is about twice the size of the increase in 2012 indicating that the number of B.S. degrees is likely to remain in the 630 to 650 range in 2014, but decrease to less than 600 in 2015.

Graduate Students. Graduate enrollment in 2013 was approximately 1,515 students. This is 5 percent lower than in 2012, but 2 percent higher than in 2011, and in the range of graduate enrollments reported since 2010. These graduate enrollment trends indicate that the number of graduate degrees are likely to be in the same range in 2014 and 2015 as in recent years, that is about 310 to 340 for M.S. degrees and 120 to 140 for Ph.D. degrees.



Source: Oak Ridge Institute for Science and Education.

EMPLOYMENT OR OTHER POST-GRADUATION STATUS

Data on employment/post-graduation status for those graduating in 2013 are shown in Table 3. Unfortunately, the unknown/not reported category accounts for one-third of the B.S.-level graduates, three-eighths of the M.S. graduates, and one-sixth of the Ph.D.-level graduates. Excluding the unknown/not reported, continued study was the largest post-degree activity for the B.S.- and M.S.-level graduates. For Ph.D. graduates, continued study (post-doctorate) was the largest category.

For B.S. graduates reported as employed, nuclear utilities had the largest number followed by active duty military, Federal Government, other business, DOE contractors, and other nuclear-related. Nuclear utility, DOE contractor, and U.S. military employment for new B.S. graduates have all remained about the same over the last three years while other nuclear-related employment has decreased each year since 2008.

For M.S. graduates reported as employed, active duty military, other nuclear-related, nuclear utilities, DOE contractors, other business, and the Federal Government have the larger employment numbers. In recent years, the number of new M.S. graduates reported employed has increased for other business and active duty military, stayed about the same for DOE contractors, and decreased for nuclear utilities, other nuclear-related, and Federal Government.

For Ph.D. graduates, DOE contractor, Federal Government, and other business each accounted for 10 or more of the employed graduates. In recent years, the number of new Ph.D. graduates reported employed has increased for nuclear utilities and other business, stayed about the same for DOE contractors and the Federal Government, and decreased for academia, other nuclear-related, and foreign.

Table 3. Employment or Other Post-Graduation Plans, 2013

	B.S. Degree	M.S. Degree	Ph.D. Degree
Continued Study	189	96	39
Academic Employment	9	1	7
Federal Government Employment	23	10	15
DOE Contractor Employment	17	19	18
State and Local Government Employment	4	4	2
Nuclear Utility Employment	44	19	5
Other Nuclear-Related Employment	16	20	7
Other Business Employment	22	12	10
Foreign (non-U.S.) Employment	6	5	6
U.S. Military, Active Duty	31	24	3
Other Employment	13	1	1
Still Seeking Employment	60	14	8
Unknown/Not Reported	221	137	26
Totals	655	362	147

Source: Oak Ridge Institute for Science and Education.

Table 4. Nuclear Engineering Degrees, 2013, by Academic Institution
(alphabetical by state and then university)

State	Name of Institution	Degrees		
		Sept. 1, 2012 – Aug. 31, 2013		
CA	University of California, Berkeley	18	7	9
FL	University of Florida	27	2	0
GA	Georgia Institute of Technology	38	25	6
ID	Idaho State University	10	10	2
IL	University of Illinois at Urbana-Champaign	49	17	4
IN	Purdue University	49	12	5
KS	Kansas State University	15	0	0
MA	Massachusetts Institute of Technology	11	11	13
MA	University of Massachusetts, Lowell	7	4	0
MD	University of Maryland	0	4	3
ME	University of Maine	0	0	0
MI	University of Michigan	52	26	16
MO	Missouri University of Science and Technology	27	8	0
MO	University of Missouri - Columbia	0	8	6
NC	North Carolina State University	36	19	4
NM	University of New Mexico	13	7	6
NV	University of Nevada, Las Vegas	0	0	1
NY	Rensselaer Polytechnic Institute	30	5	3
NY	United States Military Academy	14	0	0
OH	Air Force Institute of Technology	0	17	1
OH	Ohio State University	0	14	6
OH	University of Cincinnati	0	1	1
OR	Oregon State University	32	15	3
PA	Pennsylvania State University	85	42	9
SC	South Carolina State University	3	0	0
SC	University of South Carolina	0	14	2
TN	University of Tennessee	57	21	8
TX	Texas A&M University	41	27	15
TX	University of Texas at Austin	0	5	12
UT	University of Utah	0	6	3
VA	Virginia Commonwealth University	17	3	0
WI	University of Wisconsin-Madison	24	32	9
TOTALS:		655	362	147

Source: Oak Ridge Institute for Science and Education.

Appendix: 2012 Nuclear Engineering Degrees by Academic Program

In 2012, ORISE was not able to complete the Survey of Nuclear Engineering Enrollments and Degrees nor provide a report of the data collected as a Federal funding cutoff caused a cessation in the survey work. The appendix table below provides the degree data by university for the 27 academic programs for which 2012 data was collected before the cessation of work occurred, plus an estimate of degrees for five academic programs.

Appendix Table. Nuclear Engineering Degrees, 2012, by Academic Institution
(*alphabetical by state and then university*)

State	Name of Institution	Degrees		
		Sept. 1, 2011 – Aug. 31, 2012		
		B.S.	M.S.	Ph.D.
CA	University of California, Berkeley	15	6	7
FL	University of Florida	31	7	0
GA	Georgia Institute of Technology	21	21	3
ID	Idaho State University	15	9	1
IL	University of Illinois at Urbana-Champaign	50	12	5
IN	Purdue University	36	8	4
KS	Kansas State University	11	2	3
MA	Massachusetts Institute of Technology	18	26	14
MA	University of Massachusetts, Lowell	6	3	0
MD	University of Maryland	0	6	0
ME	University of Maine	3	1	0
MI	University of Michigan	34	42	15
MO	Missouri University of Science and Technology	31	8	0
MO	University of Missouri - Columbia	0	7	6
NC	North Carolina State University	30	12	7
NV	University of Nevada, Las Vegas	0	0	1
NY	Rensselaer Polytechnic Institute	25	4	3
NY	United States Military Academy	20	0	0
OH	Air Force Institute of Technology	0	7	1
OR	Oregon State University	34	24	6
PA	Pennsylvania State University	82	8	4
SC	South Carolina State University	8	0	0
SC	University of South Carolina	0	13	0
TN	University of Tennessee	56	25	8
TX	Texas A&M University	45	24	7
UT	University of Utah	0	0	0
VA	Virginia Commonwealth University	9	7	0
	<i>Estimates for 5 remaining programs.</i>	30	51	24
TOTALS:		610	333	119

Source: Oak Ridge Institute for Science and Education.

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