

# Nuclear Engineering Enrollments and Degrees Survey, 2015 Data

Number 76

Oak Ridge Institute for Science and Education

March 2016

## SURVEY UNIVERSE

The 2015 Nuclear Engineering Enrollments and Degrees Survey reports degrees granted between September 1, 2014 and August 31, 2015. Enrollment information refers to the fall term 2015. The enrollments and degrees data comprises students majoring in nuclear engineering or in an option program equivalent to a major. Thirty-five academic programs reported having nuclear engineering programs during 2015, and data was received from all thirty-five programs. The report includes enrollment information on undergraduate students and graduate students and information by degree level for post-graduation plans.

## DEGREE DATA

**Bachelor's Degrees.** The number of B.S. degrees granted in 2015 is 4 percent higher than in 2014 and 0.5 percent lower than in 2013. (Table 1.) The 2015 number of B.S. degrees is the second highest number since 1984 but remains 23 percent below the peak years in the late 1970s. Nuclear engineering majors accounted for 85 percent of all B.S. degrees. (Table 2.)

**Graduate Degrees.** The number of M.S. degrees granted in 2015 is 13 percent higher than in 2014, and nearly identical to the number reported for 2013. The number of Ph.D. degrees granted in 2015 is 13 percent lower than in 2014 and the same as reported in 2013. (Table 1.) The 2015 number of M.S. degrees is the highest since 1980, while the number of Ph.D. degrees reported in 2015 and 2013 are the second highest numbers reported since 1972. Nuclear engineering majors accounted for 96 percent of both M.S. degrees and Ph.D. degrees. (Table 2.)

**Table 1. Nuclear Engineering Degrees, 2006-2015**

Year	Degrees		
	B.S.	M.S.	Ph.D.
2015	652	363	147
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

Source: Oak Ridge Institute for Science and Education.

**Table 2. Nuclear Engineering Degrees by Curriculum, 2015**

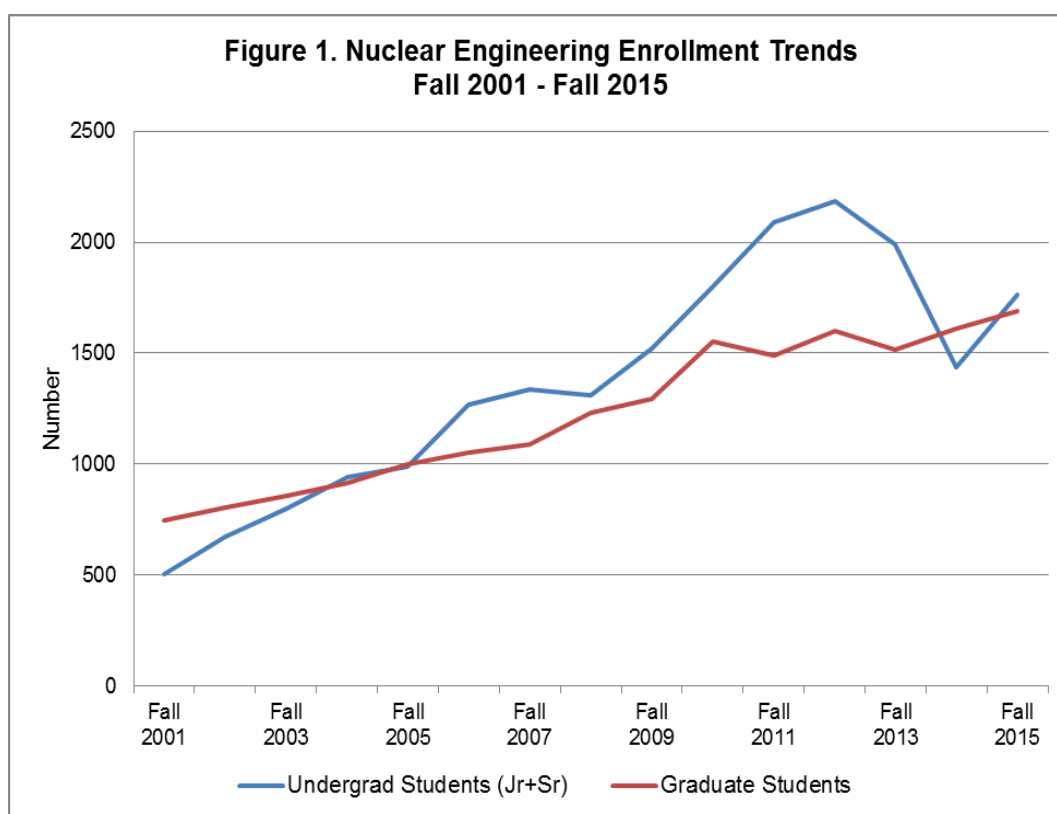
Curriculum	B.S.	M.S.	Ph.D.
Nuclear Engineering Major	556	349	141
Nuclear Engineering Option	96	14	6

Source: Oak Ridge Institute for Science and Education.

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

**Undergraduate Students.** In 2015, the reported enrollment of junior and senior undergraduates was approximately 1,760, a 23 percent increase from 2014, and the first increase reported since 2012. The undergraduate enrollment increase in 2015 still leaves undergraduate enrollment below the level reported in 2013 indicating that the number of B.S. degrees is likely to remain in the 630 to 650 range in 2016 but could decrease to less than 600 in 2017.

**Graduate Students.** Graduate enrollment in 2015 was approximately 1,690 students. This is a 5 percent increase over enrollment reported in 2014, and 11 percent higher than in 2013, and is the highest graduate enrollment reported since 1977. These graduate enrollment trends indicate that the number of graduate degrees in 2016 and 2017 are likely to be in the same range as in recent years, which is about 320 for M.S. degrees and more than 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 2015 are shown in Table 3. Unfortunately, the unknown/not reported category accounts for 45 percent of the B.S.-level graduates, 28 percent of the M.S. graduates, and 18 percent of the Ph.D.-level graduates. Excluding the unknown/not reported, continued study was the largest post-degree activity for the B.S.-level and M.S.-level graduates. For Ph.D. graduates, federal government employment was the largest category.

For B.S. graduates reported as employed, active duty military had the largest number followed by other business employment, nuclear utility employment, other nuclear-related employment, and DOE contractors. The numbers reported for nuclear utility and federal government employment for new B.S. graduates are the lowest numbers reported since 2006, while the number reported for other business employment is the highest number reported in the last 20 years.

For M.S. graduates reported as employed, active duty military, nuclear utility employment, other nuclear-related, DOE contractors, the Federal government, and other business account for 87 percent of employment plans. In recent years, the number of new M.S. graduates reporting plans for active military duty has increased from 4 in 2006 to 28 in 2015. The share of new M.S. graduates reporting planned employment by nuclear utilities, other nuclear-related organizations, and DOE contractors has accounted for roughly 1 out of every 2 employed graduates since 2006.

For Ph.D. graduates, federal government, DOE contractor, and other nuclear-related employment each accounted for more than 15 of the employed graduates. The number reported for federal government employment is the highest number in the last 20 years, while, conversely, for the first time in 20 years, the number of Ph.D. graduates reporting employment plans with nuclear utilities fell to zero.

**Table 3. Employment or Other Post-Graduation Plans, 2015**

	B.S. Degree	M.S. Degree	Ph.D. Degree
Continued Study	121	115	17
Academic Employment	2	3	11
Federal Government Employment	10	11	24
DOE Contractor Employment	21	18	17
State and Local Government Employment	1	0	0
Nuclear Utility Employment	34	24	0
Other Nuclear-Related Employment	32	20	16
Other Business Employment	42	10	11
Foreign (non-U.S.) Employment	5	9	11
U.S. Military, Active Duty	44	28	5
Other Employment	3	5	3
Still Seeking Employment	41	17	6
Unknown/Not Reported	296	103	26
<b>TOTALS</b>	<b>652</b>	<b>363</b>	<b>147</b>

Source: Oak Ridge Institute for Science and Education.

**Table 4. Nuclear Engineering Degrees, 2015, by Academic Institution**

State	Name of Institution	Degrees Sept. 1, 2014 – Aug. 31, 2015		
		B.S.	M.S.	Ph.D.
<b>CALIFORNIA</b>	University of California at Berkeley	21	16	6
<b>COLORADO</b>	Colorado School of Mines	0	7	1
<b>FLORIDA</b>	University of Florida	27	10	1
<b>GEORGIA</b>	Georgia Institute of Technology	30	17	6
<b>IDAHO</b>	Idaho State University	10	16	1
<b>ILLINOIS</b>	University of Illinois at Urbana-Champaign	33	6	5
<b>INDIANA</b>	Purdue University	22	13	7
<b>KANSAS</b>	Kansas State University	6	1	4
<b>MAINE</b>	University of Maine	4	1	0
<b>MARYLAND</b>	University of Maryland	0	4	1
<b>MASSACHUSETTS</b>	Massachusetts Institute of Technology	8	22	14
	University of Massachusetts, Lowell	8	1	0
<b>MICHIGAN</b>	University of Michigan	34	22	20
<b>MISSOURI</b>	Missouri University of Science and Technology	40	19	5
	University of Missouri - Columbia	0	1	2
<b>NEVADA</b>	University of Nevada, Las Vegas	0	2	1
<b>NEW MEXICO</b>	University of New Mexico	7	6	4
<b>NEW YORK</b>	Rensselaer Polytechnic Institute	18	1	4
	United States Military Academy	21	0	0
<b>NORTH CAROLINA</b>	North Carolina State University	42	20	1
<b>OHIO</b>	Air Force Institute of Technology	0	17	4
	Ohio State University	24	7	5
	University of Cincinnati	0	1	5
<b>OREGON</b>	Oregon State University	29	9	5
<b>PENNSYLVANIA</b>	Penn State University	68	25	5
	University of Pittsburgh	36	13	0
<b>SOUTH CAROLINA</b>	South Carolina State University	13	0	0
	University of South Carolina	0	6	2
<b>TENNESSEE</b>	University of Tennessee	40	28	9
<b>TEXAS</b>	Texas A&M University	55	21	12
	University of Texas at Austin	6	8	3
<b>UTAH</b>	University of Utah	0	3	1
<b>VIRGINIA</b>	Virginia Commonwealth University	16	12	3
	Virginia Tech	0	1	2
<b>WISCONSIN</b>	University of Wisconsin-Madison	34	27	8
<b>TOTALS</b>		<b>652</b>	<b>363</b>	<b>147</b>

Source: Oak Ridge Institute for Science and Education.

---

This document was prepared for the U.S. Nuclear Regulatory Commission by the Oak Ridge Institute for Science and Education (ORISE) through an interagency agreement with the U.S. Department of Energy (DOE). ORISE is managed by Oak Ridge Associated Universities under DOE contract number DE-AC05-06OR23100.

This report was prepared as an account of work sponsored by the United States Government. Neither the United States Government or any agency thereof, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe on privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, mark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement or recommendation, or favor by the U.S. Government or any agency thereof.

The views and opinions of authors expressed herein do not necessarily state or reflect those of the U.S. Government or any agency thereof, Oak Ridge Institute for Science and Education, or the sponsoring institutions of Oak Ridge Associated Universities.

The Oak Ridge Institute for Science and Education (ORISE) is a U.S. Department of Energy institute focusing on scientific initiatives to research health risks from occupational hazards, assess environmental cleanup, respond to radiation medical emergencies, support national security and emergency preparedness, and educate the next generation of scientists. ORISE is managed by Oak Ridge Associated Universities (ORAU).

---