

Nuclear Engineering Enrollments and Degrees Brief

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NUCLEAR ENGINEERING degrees continued to decline, undergraduate enrollments were approximately constant, master's enrollments decreased, and doctorate enrollments increased slightly.

SURVEY UNIVERSE

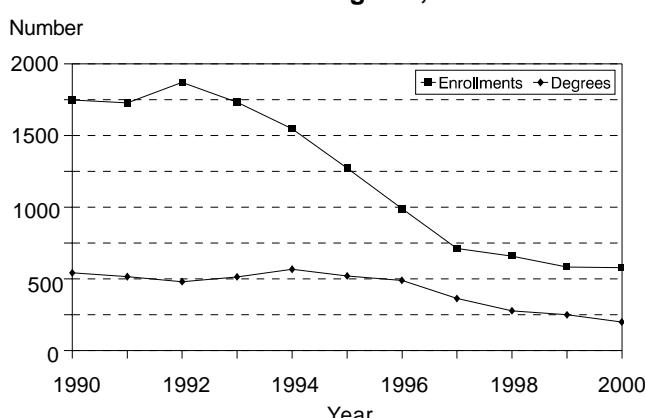
The survey of "Nuclear Engineering Enrollments and Degrees, 2000" was sent to 38 institutions offering a major in nuclear engineering or an option program in another discipline or department (such as electrical or mechanical engineering) equivalent to a major that qualifies the graduates to perform as nuclear engineers. Of the 38 institutions in the survey, 1 program was new and 1 program is phasing out.

UNDERGRADUATE ENROLLMENTS AND DEGREES

Nuclear engineering undergraduate enrollments decreased by 1 percent from 1999 to 463 students. (Figure 1.) Among the 29 undergraduate programs, 11 reported increased enrollments, 5 reported no change in enrollments, and 13 reported decreased enrollments.

Undergraduate degrees decreased by 20 percent in 2000, or by 40 students. Eighty-nine percent (142 students) were in programs with a major in nuclear engineering. The remaining were in option programs.

Figure 1. Nuclear Engineering Undergraduate Enrollments and Degrees, 1990-2000



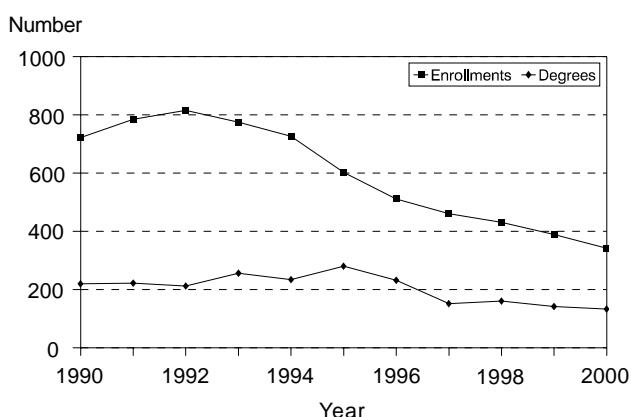
Undergraduate = Junior and Senior Level.
Source: Oak Ridge Institute for Science and Education.

MASTER'S ENROLLMENTS AND DEGREES

Master's enrollments continued a downward trend since 1993, decreasing by 12 percent, from 389 students in 1999 to 342. (Figure 2.)

Nuclear engineering master's degrees decreased by 6 percent, from 142 to 133 in 2000. All but 2 were in programs with a nuclear engineering major.

Figure 2. Nuclear Engineering Master's Enrollments and Degrees, 1990-2000



Source: Oak Ridge Institute for Science and Education.

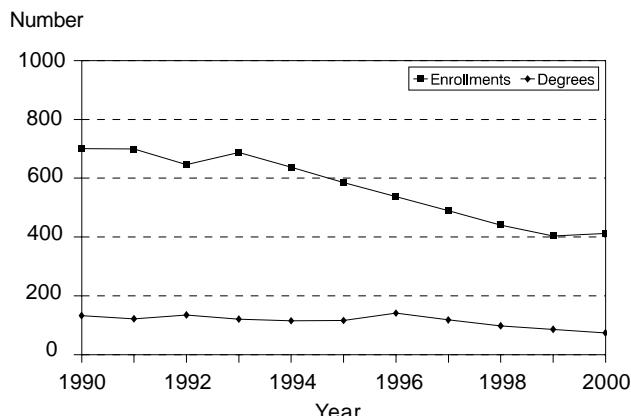
DOCTORAL ENROLLMENTS AND DEGREES

Doctoral enrollments increased slightly in 2000 from 404 to 412, or by 2 percent. (Figure 3.)

Doctoral degrees decreased from 1999 by 14 percent, or from 86 to 74 students, which is the lowest number of degrees awarded since the survey was initiated in 1972. All 74 degrees were awarded in programs with a nuclear engineering major.

GRADUATE ENROLLMENT TRENDS

Among the 31 graduate programs (master's and/or Ph.D.), 9 reported increased enrollments, 9 reported no change in enrollments, and 13 reported decreased enrollments in comparison to the previous year.

Figure 3. Nuclear Engineering Doctoral Enrollments and Degrees, 1990-2000

Source: Oak Ridge Institute for Science and Education.

EMPLOYMENT OR POSTGRADUATION PLANS

Reported postgraduation plans: (Table 1.)

Undergraduates

- 10 percent (16 students) went to work in nuclear utilities
- 32 percent of the bachelor's (51 students) elected to continue study for a higher degree
- 13 percent (20 students) went in the U.S. military

Master's

- 37 percent (49 students) were continuing study
- 14 percent (18 students) reported employment with U.S. nuclear utility
- about 10 percent reported employment with DOE contractors (13 students) and with U.S. other industrial employment (14 students)

Ph.D.

- 22 percent of new doctorates (16 students) were working with DOE contractors
- 16 percent (12 students) reported U.S. other industrial employment
- 8 percent (6 students) were employed in U.S. academic employment

Table 1. Employment or Postgraduation Plans of Nuclear Engineering Graduates by Degree Level, 2000 (Percent Distribution)

Employment or Postgraduation Plans	B.S.	M.S.	Ph.D.
<i>Number of degrees</i>	159	133	74
Continued study	32%	37%	9%
U.S. academic employ.	1	4	8
Federal gov. employ.	1	3	9
DOE contractors (M&Os)	3	10	22
State and local gov. employ.	1	0	0
U.S. nuclear utility employ.	10	14	7
U.S. other industrial employ.	6	11	16
Employ. with foreign employ.	0	4	9
U.S. military service	13	7	1
Other	5	4	12
Seeking employment	2	1	3
Unknown	21	5	1
Not reported	5	0	3
TOTALS	100%	100%	100%

NOTE: Percentages are rounded to nearest whole number.
Source: Oak Ridge Institute for Science and Education.**FOREIGN NATIONAL PARTICIPATION**

Degrees awarded to foreign nationals: (Table 2.)

- Bachelor's stayed the same with 4 students.
- Master's increased from 39 students to 43.
- Foreign national doctorates decreased from 33 to 29 students in 2000.
- Although the number of Ph.D. degrees granted decreased from 1999, the percentage of degrees granted to foreign nationals rose slightly.

Table 2. Percentage of Nuclear Engineering Degrees Awarded to Foreign Nationals, 1996-2000

Year	B.S.	M.S.	Ph.D.
<i>Number of degrees</i>	159	133	74
1996	3%	25%	46%
1997	2	26	36
1998	2	21	39
1999	2	27	38
2000	3	32	39

Source: Oak Ridge Institute for Science and Education.

Table 3. Nuclear Engineering Enrollments and Degrees, by State and Institution, 2000

State	Institution	Enrollments			Degrees		
		Undergraduate	Master's	Doctoral	B.S.	M.S.	Ph.D.
ARIZONA	University of Arizona	-	1	1	-	-	-
CALIFORNIA	University of California, Berkeley	29	10	29	10	10	5
FLORIDA	University of Florida, Gainesville	17	17	5	-	5	2
GEORGIA	Georgia Institute of Technology	13	2	24	5	1	5
IDAHO	Idaho State University	-	6	4	-	4	1
	University of Idaho	-	-	3	-	-	-
ILLINOIS	University of Illinois, Urbana	5	17	20	10	5	1
INDIANA	Purdue University	24	17	19	5	7	2
	University of Notre Dame	6	-	-	5	-	-
KANSAS	Kansas State University	8	3	-	-	-	-
LOUISIANA	Louisiana State University	-	3	1	-	-	-
MAINE	University of Maine	1	-	-	3	-	-
MARYLAND	University of Maryland	4	7	19	-	4	2
	University of Maryland, Univ. College	56	-	-	-	-	-
MASSACHUSETTS	Massachusetts Institute of Technology	13	50	63	11	13	6
	University of Massachusetts Lowell	4	10	1	-	-	1
	Worcester Polytechnic Institute	2	-	-	2	-	-
MICHIGAN	The University of Michigan, Ann Arbor	30	16	28	13	14	7
MISSOURI	University of Missouri, Columbia	-	7	7	-	4	6
	University of Missouri, Rolla	28	6	5	8	3	2
NEW MEXICO	University of New Mexico	8	12	21	1	7	3
NEW YORK	Columbia University	-	-	3	-	-	-
	Cornell University	-	2	3	-	-	-
	Rensselaer Polytechnic Institute	38	4	20	24	2	-
	U.S. Military Academy	21	-	-	4	-	-
NORTH CAROLINA	North Carolina State University	21	14	12	22	12	6
OHIO	Air Force Institute of Technology	-	13	6	-	4	1
	The Ohio State University	-	19	5	-	3	-
	University of Cincinnati ¹	-	12	9	2	4	2
OREGON	Oregon State University	20	9	3	4	1	1
PENNSYLVANIA	Pennsylvania State University	38	19	33	6	6	1
TENNESSEE	Tennessee Technological University	1	-	-	-	-	-
	University of Tennessee, Knoxville	16	17	11	6	8	1
TEXAS	Texas A&M University	35	29	14	8	6	9
	University of Texas, Austin	4	7	10	2	2	-
UTAH	University of Utah	5	4	5	5	2	2
VIRGINIA	University of Virginia	-	1	3	-	-	2
WISCONSIN	University of Wisconsin, Madison	16	8	25	3	6	6
TOTALS		463	342	412	159	133	74

NOTES: ¹The undergraduate program at the University of Cincinnati has been suspended; students are being allowed to complete their degrees.

²The program at the University of Virginia is phasing out; students are being allowed to complete their degrees.

Source: Oak Ridge Institute for Science and Education.

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All opinions expressed in this report are the authors' and do not necessarily reflect policies and views of the U.S. Department of Energy or the Oak Ridge Institute for Science and Education.

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