

### Levels for nuclear engineering and HP decrease

THE OAK RIDGE Institute for Science and Education (ORISE) in May 1999 released enrollment figures for U.S. nuclear engineering and health physics programs, officially titled Department of Energy Manpower Assessment Briefs 44 and 45, respectively. Enrollments, they found, continued to decline.

A survey, "Nuclear Engineering Enrollments and Degrees, 1998," was sent to the 45 institutions offering a major in nuclear engineering or a nuclear engineering option within another major. Of those 45, one program was inactive, two were suspended and in 1997 awarded their last degrees, and three were suspended, but were allowing existing students to graduate. Data were estimated for two of the programs.

Undergraduate nuclear engineering enrollments totaled 527 (see Fig. 1), a decrease of 8 percent from 1997, while the number of degrees granted decreased by 23 percent, to 222. Masters degree enrollments also decreased, from 460 in 1997 to 431 in 1998. There was a small increase of masters degrees granted in 1998, from 152 in 1997 to 160. Doctoral de-

*A continuing decline in enrollments and degrees granted is confirmed by the release of 1998 figures.*

grees granted were at their lowest number since 1987: 98 students, a 17 percent decrease from 1997. Enrollments in doctoral programs were at 441, representing a decrease from 1997 of 10 percent.

The survey also requested information about the graduates' future plans (see Table 1). Several students planned to continue their studies: 23 percent, 32 percent, and 7 percent of BS, MS, and PhD recipients, respectively. U.S. nuclear utilities employed the most BS graduates, at 26 percent; other U.S. industrial firms and the U.S. military also employed a number of BS graduates. U.S. utilities employed 16 percent of the new MS graduates, but only 4 percent of the PhDs, 29 percent of whom are drawn to other industrial employment.

Another survey, "Health Physics Enrollments and Degrees, 1998," was sent to the 47 institutions that offer a major in health physics/radiation protection, or a nuclear engineering

option within another major. Of those 47, three programs were suspended, but were allowing existing students to graduate.

Health physics enrollments at all levels decreased in 1998. There were 161 undergraduates, a 12 percent decrease from 1997 (see Fig. 2), 347 masters degree candidates (a decrease of 16 percent), and 190 enrollments at the doctoral level (a decrease of 9 percent). The number of BS and MS degrees granted dropped, while the number of doctoral degrees increased slightly, from 34 to 37.

Information was gathered about the health physics graduates' future plans (see Table 2). A number of students at each degree level planned to continue their studies, while several were drawn to medical facilities, U.S. nuclear power plants, and various positions in U.S. industry.

The full reports are available on the ORISE Web site at <[www.ornl.gov/orise/opubs.htm](http://www.ornl.gov/orise/opubs.htm)>. **EN**

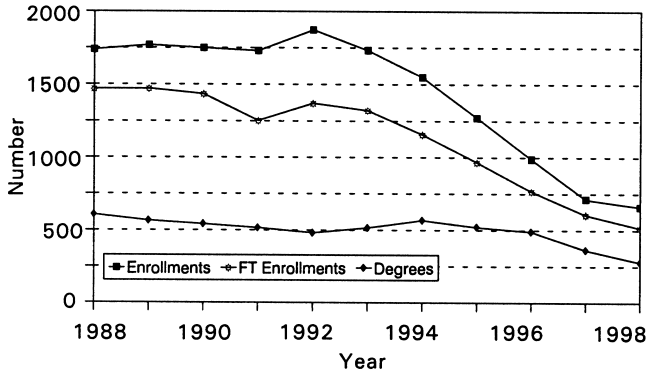


Fig. 1: Nuclear engineering undergraduate enrollments (at the junior and senior level) and degrees, 1988-1998 (Source: U.S. DOE)

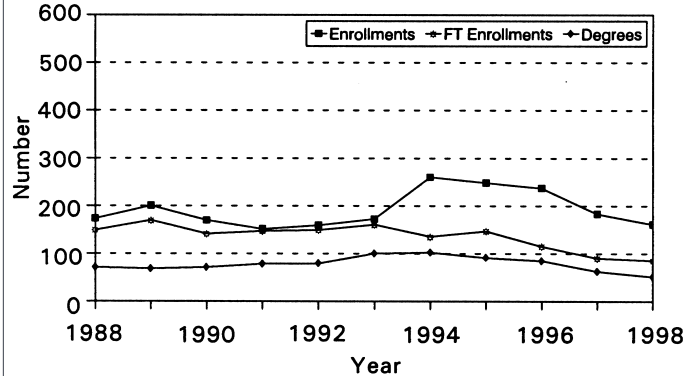


Fig. 2: Health physics undergraduate enrollments (at the junior and senior level) and degrees, 1988-1998 (Source: U.S. DOE)

Employment or Postgraduation Plans	B.S.	M.S.	Ph.D.
Continued study	23%	32%	7%
U.S. academic employ.	3	1	9
Federal gov. employ.	1	3	13
DOE contractors (M&Os)	2	9	13
State and local gov. employ.	1	0	0
U.S. nuclear utility employ.	26	16	4
U.S. other industrial employ.	10	11	29
Employ. with foreign employ.	0	2	10
U.S. military service	17	9	0
Other	4	3	6
Seeking employment	2	3	2
Unknown	13	13	6
TOTALS	100%	100%	100%

NOTE: Percentages are rounded to nearest whole number

Table 1: Employment or postgraduation plans of nuclear engineering graduates by degree level, 1998 (percent distribution) (Source: U.S. DOE)

Employment or Postgraduation Plans	B.S.	M.S.	Ph.D.
Continued study	31%	16%	24%
U.S. academic employ.	10	4	11
Federal gov. employ.	4	8	3
DOE contractors (M&Os)	8	8	5
State and local gov. employ.	0	4	0
Medical facilities employ.	4	17	19
U.S. nuclear utility employ.	16	11	0
U.S. other industrial employ.	8	14	19
Employ. with foreign employ.	0	2	14
U.S. military service	6	5	5
Other	2	4	0
Unknown	8	1	0
Still seeking employment	4	7	0
TOTALS	100%	100%	100%

NOTE: Percentages are rounded to nearest whole number

Table 2: Employment or postgraduation plans of health physics graduates by degree level, 1998 (percent distribution) (Source: U.S. DOE)