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MASTER

Nuclear Engineering Enrollments and Degrees, 1978

Enrollments — Fall 1978

Degrees Granted

July 1966–June 1978

August 1979

U.S. Department of Energy

Assistant Secretary for Intergovernmental
and Institutional Relations

Division of Labor Affairs
and Manpower Assessment

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FOREWORD

The present uncertainties concerning nuclear power development could have substantial impacts on the nuclear engineering labor force.

For two decades nuclear power plants have been operating in the United States. At the beginning of 1979, the number of operating nuclear power plants approached 70. An additional 70 nuclear power plants are under construction and formal plans exist for over 50 more to become operational over the next 15 years.

Over the past few years there have been significant perturbations in the supply of new engineers with nuclear expertise caused by many factors, such as the general decline in engineering enrollments, concern about involvement in nuclear activities, and uncertainty about a nuclear power future. This series of nuclear engineering enrollment and degree surveys has charted the changes in the supply of professional nuclear personnel and assisted planners and educators alike in preparing to provide for this needed energy resource.

The Department of Energy appreciates the continuing cooperation of the educational institutions involved in nuclear-related engineering training. We acknowledge and thank all those who have provided the data for these reports.

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INTRODUCTION

This report presents the results of the eighth annual survey of Nuclear Engineering Enrollments and Degrees. Each year the survey is sent to institutions offering degrees in nuclear engineering or other engineering disciplines with nuclear engineering options. The number of institutions included may vary from one year to the next as new programs are identified and other programs are discontinued. However, historical information about degrees granted since July 1966 has been collected for all institutions. In this current survey one new respondent was added (Worcester Polytechnic Institute) that reported enrollments and degrees in nuclear engineering option programs.

For the first time, in Appendix B, addresses of institutions in the survey universe have been separated into active, inactive, or discontinued programs.

Chart 1. DEGREES GRANTED IN NUCLEAR ENGINEERING 1966-78

HIGHLIGHTS

SURVEY UNIVERSE:

This survey includes current data on 70 institutions which reported degrees and/or enrollments. One institution was added to the universe, six schools reported no students during this survey year, and two institutions have discontinued their nuclear engineering program.

ENROLLMENT:

Overall undergraduate enrollment decreased by four percent during 1977-78, with the largest percentage decrease in third year students. Master's enrollment also declined for the third year, but doctoral candidates increased slightly.

DEGREES AWARDED:

Bachelor degree recipients increased for the third year to a record 777. The number of master's degrees awarded decreased by 67 to 487 after an increase in 1976-77, and the number of doctorate degrees awarded decreased for the second year, to 110.

PLACEMENT:

The largest number of degree recipients ever, 394, were placed in industry during 1977-78. Bachelor degree holders represented over half of those finding employment in private industry.

The second largest category, at both the bachelor and master level, were those choosing further study. At the doctorate level, the second largest group of degree recipients chose employment in Government-owned contractor-operated installations. As in 1976-77, very few degree holders (one percent of bachelors and doctorates, less than one percent of masters) were still seeking employment. However, the number of graduates whose placement was unknown increased significantly.

MINORITIES AND WOMEN:

Minority group (excluding foreign nationals) participation appears to be holding steady at a very low percentage of the total. However, the participation of women continued to increase at some levels.

FOREIGN NATIONALS:

Participation of foreign nationals at the undergraduate level has decreased, but has increased considerably at the graduate levels. Thirty-seven percent of all doctorates and 26 percent of master's degrees were awarded to foreign nationals. Half the Ph.D. candidates were foreign nationals.

REGIONAL DISTRIBUTION:

Undergraduate (22 percent) and graduate (24 percent) enrollment was highest in the East North-Central region. By state, New York awarded the largest number of bachelor's degrees, and Massachusetts granted the largest number of master's and doctoral degrees.

TABLE 1

Enrollment of Full-time and Part-time Students
in Nuclear Engineering by Educational Level
(Fall 1972 through Fall 1978)

Year	Undergraduate						Graduate					
	3rd Year		4th Year		5th Year		Master's Candidates			Doctoral Candidates		
	FT	PT	FT	PT	FT	PT	FT	PT	TOTAL	FT	PT	TOTAL
1972	628	5	662	5	16	-	717	194	911	509	150	659
1973	603	7	670	30	22	-	766	252	1018	504	118	622
1974	687	4	707	12	35	-	823	401	1224	475	127	602
1975	851	18	841	23	78	2	958	456	1446	550	115	665
1976	913	31	925	24	32	1	1015	314	1329	486	97	583
1977	1018	4	1012	8	104	14	809	359	1168	481	96	577
1978	885	13	1003	7	173	3	818	246	1064	500	85	585

SOURCE: AEC, DNET, Nuclear Engineering Enrollment and Degree Survey, WASH-1228(73), May 1973; AEC, DLR, Nuclear Engineering Enrollments and Degrees, WASH-1228(74), July 1974; ERDA, DLR, Nuclear Engineering Enrollments and Degrees, ERDA-76(75), September 1975; ERDA, OUP, Nuclear Engineering Enrollments and Degrees, 1975, ERDA-76-102, July 1976; DOE, IR, DLAMA, Nuclear Engineering Enrollments and Degrees, 1977, DOE/IR-0011, 1977; 1978, Department of Energy.

ENROLLMENTS AND DEGREES

DOCTORATES

In the fall of 1978, 500 full-time and 85 part-time Ph.D. candidates were enrolled, showing that doctoral enrollments have remained relatively stable since the Fall of 1976 (see Table 1).

The 110 doctorate degrees awarded in 1977-78 represent a nine percent decrease from 1976-77, and the second lowest number since academic year 1966-67 (see Chart 1 and Appendix A-1). There has been a decline in the number of doctorate degrees granted in the past two years. Doctorate degrees were awarded by 49 percent of all institutions; but Massachusetts Institute of Technology awarded two times as many doctorates (20) as the next leading institution, University of Michigan (10). The University of Wisconsin awarded the third largest number of doctorate degrees (7).

The decrease in the number of doctorate degrees awarded in nuclear engineering in 1977-78 followed a pattern of general decline in all engineering doctorates awarded, so that there was little change in nuclear engineering's share of all engineering doctorates (4.27 percent). Against the long-term decrease in all engineering doctorates awarded dating back to 1971-72 (see Table 2), the number and percentage of nuclear engineering doctorates has fluctuated.

In 1977-78, both the number of doctorate degrees awarded and the enrollment of doctoral candidates were largely in specific nuclear engineering programs (see Table 3). Only about two percent of those enrolled and six percent of Ph.D. degrees awarded were in other engineering disciplines specializing with a nuclear option.

MASTERS

In the fall of 1978, there were 818 full-time and 246 part-time master's candidates enrolled. Although the number of full-time master's level candidates remained relatively stable, the part-time enrollment decreased by 31 percent. Total enrollment figures of 1,064 (see Table 1) represent the lowest number of master's candidates since the fall of 1973.

TABLE 2

Nuclear Engineering Degrees as a Percentage of All
Engineering Degrees by Degree Level
1967 - 1978

Year Ending June 30	BACHELORS			MASTERS			DOCTORATE		
	All Engineering	Nuclear Engineering	Percent Nuclear/ All Eng.	All Engineering	Nuclear Engineering	Percent Nuclear/ All Eng.	All Engineering	Nuclear Engineering	Percent Nuclear/ All Eng.
1967	36,186	167	0.46	13,887	326	2.35	2,614	137	5.24
1968	38,002	251	0.66	15,152	320	2.11	2,933	148	5.04
1969	39,972	315	0.79	14,980	385	2.57	3,345	154	4.60
1970	42,966	424	0.99	15,548	413	2.66	3,620	182	5.03
1971	43,167	448	1.04	16,383	414	2.53	3,640	171	4.70
1972	44,190	536	1.21	17,356	436	2.51	3,774	151	4.00
1973	43,429	663	1.53	17,152	452	2.64	3,587	128	3.57
1974	41,407	628	1.52	15,885	465	2.93	3,362	128	3.81
1975	38,210	529	1.38	15,549	475	3.05	3,138	101	3.22
1976	37,970	648	1.71	16,506	468	2.84	2,977	145	4.87
1977	40,094	758	1.89	16,517	554	3.35	2,814	121	4.30
1978	46,091	777	1.69	16,182	487	3.00	2,573	110	4.27

SOURCE: Data for all engineering degrees supplied by Engineering Manpower Commission, New York, New York;
for nuclear engineering degrees, Department of Energy.

TABLE 3

Undergraduate, Master's and Doctorate Enrollments and Degrees Granted
in Nuclear Engineering or Other Engineering Fields with Nuclear Option, 1975-1978
(Percent Distribution)

	ENROLLMENTS - FALL											
	BACHELORS				MASTERS				DOCTORATES			
	1975	1976	1977	1978	1975	1976	1977	1978	1975	1976	1977	1978
Nuclear engineering	75	75	69	68	90	88	88	96	97	95	95	98
Chemical	2	3	4	3	*	*	*	-	*	1	*	-
Engineering science	5	4	4	6	3	2	2	1	1	-	1	1
Electrical	5	4	5	6	*	1	*	-	*	*	-	-
Mechanical	8	9	11	12	7	8	4	3	2	5	3	1
Other	5	4	7	7	-	*	1	-	-	-	-	-

	DEGREES GRANTED											
	BACHELORS				MASTERS				DOCTORATES			
	1974-75	1975-76	1976-77	1977-78	1974-75	1975-76	1976-77	1977-78	1974-75	1975-76	1976-77	1977-78
Nuclear engineering	72	73	70	70	90	90	92	95	91	96	94	95
Chemical	1	5	6	4	1	1	1	-	1	-	1	2
Engineering science	6	3	3	7	2	1	1	-	2	-	2	1
Electrical	3	6	5	4	1	*	*	1	-	1	-	-
Mechanical	14	7	12	11	6	8	7	4	6	3	3	3
Other	4	6	5	4	-	-	*	-	-	-	-	-

*Less than ½ of 1 percent.

NOTE: Percentages of enrollments and degrees granted are based on total enrollments and degrees granted by all institutions reporting in that respective year. Percentages may not add to 100 percent because of rounding.

SOURCE: ERDA, OUP, Nuclear Engineering Enrollments and Degrees, 1975, ERDA-76-102, July 1976; DOE, IR, DLAMA, Nuclear Engineering Enrollments and Degrees, 1977, DOE/IR-011, 1978; and 1977-78, Department of Energy.

In addition to this, the number of master's degrees awarded (487) decreased both numerically and as a percentage of all engineering masters (see Table 2). Although 75 percent of all institutions (52) granted master's degrees, ten schools accounted for 52 percent of the total degrees awarded. Massachusetts Institute of Technology, alone, accounted for 13 percent, granting 63 master's degrees.

Ninety-six percent of those enrolled in nuclear engineering master's programs were in unique programs, and only four percent were in other engineering disciplines with nuclear option. This contrasts with only 88 percent in unique nuclear engineering programs in the fall of 1977. The percentage of master's degrees awarded in the discrete nuclear engineering discipline has also increased from 90 percent in 1974-75 and 1975-76, and 92 percent in 1976-77 to 95 percent in 1977-78.

BACHELORS

Enrollment of third year students for fall 1978 was 898 (885 full-time and 13 part-time); for fourth year students, enrollment was 1,010 (1,003 full-time and 7 part-time); and for fifth year students, enrollment was 176 (173 full-time and 3 part-time). Despite the decrease in total enrollment of undergraduates, from 2,160 in 1977 to 2,084 in 1978, the number of fifth year students rose (see Table 1). Enrollment at four institutions (University of Florida, University of Maryland, Purdue University, and Rennselaer Polytechnical Institute) accounted for 72 percent of the increase in fifth year student enrollment.

There were 777 bachelor's degrees awarded during 1977-78, the highest number reported since the survey's beginning (see Chart 1 and Table 2). The percentage of all bachelor's engineering degrees which were in nuclear engineering dropped from 1.89 percent in 1976-77 to 1.69 percent in 1977-78. Even so, this percentage is the third highest since 1967 (see Table 2).

Enrollment in other engineering disciplines with nuclear option has increased from 31 percent of nuclear engineering enrollments in 1976-77 to 34 percent in 1977-78 (see Table 3). A small decrease (from 31 in 1976-77 to 30 percent in 1977-78) was reported in the number of bachelor's degrees awarded in nuclear option programs.

PLACEMENT OF GRADUATES

Placement of 1977-78 Ph.D. nuclear engineering graduates varied little from 1976-77 (see Table 4). The largest decreases occurred in those hired by Government-owned contractor-operated installations (from 22 to 15). As in 1976 and 1977, the largest single employer of new doctorates in 1978 was private industry (31 percent).

The largest group of master's degree holders (29 percent) was also placed within industry, while the next largest proportion of graduates chose further study (20 percent). However, the biggest percentage decrease was reported in industrial employment. Part of this decrease could be accounted for by the many graduates (30 percent) in the unknown placement category. Other placement categories experienced only minor variations.

There were 217 bachelor's degree holders (28 percent) who found employment in private industry (down from 284, or 38 percent, in the last survey). The next largest group of graduates chose further study (169 graduates, or 22 percent). The latter category also showed a decrease from the previous year (from 193 to 169). As with the master's degree recipients, the number of graduates whose placement is unknown increased.

Clearly, the largest group of graduates at all levels was hired by private industry, which hired 394 graduates, or about 31 percent of new nuclear engineers entering the labor market.

WOMEN AND MINORITIES

The total number of women enrolled at the third and fourth year undergraduate levels and master's level has increased over the past six years (see Table 5). The undergraduate enrollment of 104 women represents a two percent increase over 1976-77 figures, whereas master's candidates show a seven percent increase. A substantial decrease was reported in the number of women doctoral candidates, from 20 candidates in 1976-77 to seven in the latest survey. However, in the degrees granted category, the proportion of women increased at the bachelor and doctoral levels, but at the master's level the proportion remained the same.

TABLE 4
Placement of 1977-78 Nuclear Engineering Graduates
by Degree Level

	BACHELOR'S		MASTER'S		DOCTORATES	
	Number	Percent	Number	Percent	Number	Percent
Further study	169	22	95	20	10	9
U.S. academic employment	4	1	3	1	17	15
Federal government employment	13	2	19	4	4	3
GOCO (Government-owned/ contractor-operated installations)	39	5	31	6	15	14
State and local government	6	1	1	*	0	*
Industrial employment	217	28	143	29	34	31
Foreign employment	3	*	20	4	10	9
Military	51	6	25	5	1	1
Other	0	*	3	1	2	2
Seeking employment	1	*	0	*	1	1
Unknown	<u>274</u>	<u>35</u>	<u>147</u>	<u>30</u>	<u>16</u>	<u>15</u>
TOTALS	777	100	487	100	110	100

*Less than 1/2 of one percent.

NOTE: Percentages are rounded to nearest whole number.

SOURCE: Department of Energy.

As in the previous survey, Black student enrollment stands at one percent at all levels. Even so, the total number of Black students decreased, reflecting the general drop in nuclear engineering enrollments. The same picture is evident in the number of degrees awarded to Blacks, except that seven Blacks received bachelor degrees compared with one the previous year.

Participation by Spanish-surnamed students remained at a very low level and accounted for only one percent, or less, of both student enrollment and degrees granted.

Asian American students continue to represent relatively low percentages of persons enrolled and receiving degrees, but there has been an increase (from 15 to 21) since Fall 1977 in the number of Asian American master's candidates.

FOREIGN NATIONALS

There was a decrease in the number of foreign nationals enrolled in the undergraduate program. The 142 undergraduate students are a seven percent decrease over the numbers for 1976-77. Master's degree candidates increased by one student to 313. Doctoral enrollment increased to 275 students from 202 in 1976-77. Also, as a percentage of all nuclear engineering students, the doctoral enrollment for foreign nationals rose to 50 percent; foreign nationals are 32 percent of the master's candidates.

For those foreign nationals receiving nuclear engineering degrees, the only increase was at the Bachelor's level (from 32 to 41). The number of Master's degrees granted decreased from 127 to 103, whereas the number of doctorates decreased by one (from 36 to 35). Interestingly enough, even though there was an overall decrease in the number of graduate degrees granted, the percentages of total nuclear engineering students who were foreign nationals increased.

REGIONAL DISTRIBUTION

At the undergraduate level, enrollment was highest in educational institutions located in three regions (Middle Atlantic, East North-Central, and South Atlantic), which accounted for 52 percent of all undergraduate enrollments in nuclear engineering (see Appendix A-6). Similarly, sixty percent of the bachelor's degrees were

TABLE 5
Participation by
Foreign Nationals, Women, and Minorities
in Nuclear Engineering Programs
1973-1978

	ENROLLMENTS (FALL TERM)								DEGREES GRANTED (YEAR ENDING JUNE 30)					
	3rd Year		4th Year		Master's Candidates		Doctorate Candidates		Bachelor's		Master's		Doctorate	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
FOREIGN NATIONALS														
1973	13	2	44	6	150	15	183	29	16	3	58	13	28	22
1974	20	3	34	5	182	15	159	27	8	1	61	13	28	22
1975	51	6	54	6	285	20	239	36	39	8	76	17	30	30
1976	63	7	55	6	312	23	192	33	20	3	81	17	47	32
1977	80	8	72	7	312	27	202	35	32	4	127	23	36	30
1978	67	10	75	10	313	32	275	50	41	7	103	26	35	37
WOMEN														
1973	17	3	23	3	17	2	9	1	6	1	2	**	-	-
1974	16	2	21	3	24	2	7	1	13	2	5	1	1	1
1975	31	4	27	3	32	2	14	2	14	2	11	2	2	2
1976	39	4	34	4	31	2	10	2	14	2	7	2	-	-
1977	59	6	43	4	42	4	20	3	15	2	13	2	2	2
1978	55	8	49	6	45	5	7	1	28	5	9	2	4	4
BLACKS														
1973	4	1	7	1	20	2	4	1	9	2	7	2	2	2
1974	3	**	6	1	21	2	5	1	3	1	8	2	-	-
1975	6	1	3	**	20	1	7	1	4	1	5	1	-	-
1976	19	2	8	1	18	1	4	1	6	1	2	**	-	-
1977	8	1	12	1	14	1	4	1	1	**	6	1	1	1
1978	4	1	6	1	9	1	4	1	7	1	5	1	1	1
SPANISH SURNAMED														
1973	7	1	12	2	6*	1	1	**	5	1	-	-	1	1
1974	4	1	3	**	3*	**	4	1	3	1	2*	**	2	2
1975	3	**	7	1	3*	**	3	**	3	1	6*	1	1	1
1976	8	1	7	1	21*	2	2	**	4	**	10*	3	-	-
1977	7	1	5	**	10*	1	2	**	1	**	3*	1	1	1
1978	12	1	8	1	11	1	2	-	4	1	4	1	-	-
ASIAN AMERICANS														
1973	2	**	6	1	9	1	11	2	3	**	4	1	3	2
1974	7	1	2	**	9	1	7	1	2	**	5	1	-	-
1975	2	**	4	**	17	1	5	1	1	**	7	1	2	2
1976	4	**	5	1	25	2	5	1	4	**	2	**	3	2
1977	7	1	4	**	15	1	14	2	3	**	7	1	2	2
1978	5	1	10	1	21	2	13	2	3	1	4	1	2	2
AMERICAN INDIANS														
1976	-	-	-	-	1	*	-	-	-	-	1	**	-	-
1977	-	-	1	**	1	**	1	**	-	-	-	-	-	-
1978	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*These figures do not include the University of Puerto Rico.

**Less than 1/2 of 1 percent.

NOTE: Percentages of enrollment and degrees granted are based on total enrollment and degrees granted by all institutions reporting in that respective year.

SOURCE: Department of Energy.

granted by states in these same three regions. The state of New York enrolled the most undergraduates of any state and awarded nine percent of the bachelor's degrees. Texas followed close behind with eight percent of the undergraduate enrollment.

Enrollment of graduate students followed a similar pattern. The Middle Atlantic, East North-Central, and South Atlantic regions contained the highest numbers of graduate degree candidates and accounted for approximately 53 percent of total graduate enrollment. Although Massachusetts contained more master's candidates than any other state, Illinois had the largest contingent of Ph.D. candidates. Massachusetts granted the largest number of master's degrees in 1977-78, but the leading regions were the East North-Central and South Atlantic with 84 master graduates. The New England region, specifically Massachusetts, posted the largest number of doctorates granted in nuclear engineering.

APPENDICES

Appendix A - Statistical Tables

Appendix B - Addresses

Appendix C - Survey Materials

APPENDIX A-1

NUCLEAR ENGINEERING
DEGREES GRANTED 1968-1978
By InstitutionB = Bachelors
M = Masters
D = Doctorate

State and Institution	July- June- 1968 1969			1969 1970			1970 1971			1971 1972			1972 1973			1973 1974			1974 1975			1975 1976			1976 1977			1977 1978			
	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	
<u>ALABAMA</u>																															
Tuskegee Institute. . . .	-	2	-	-	2	-	-	2	-	-	-	-	-	2	-	-	5	-	-	3	-	-	-	-	1	-	-	1	-		
<u>ARIZONA</u>																															
Arizona State University.	4	-	-	3	1	-	6	1	-	5	2	-	5	1	-	8	-	-	10	1	-	15	-	-	16	1	-	58	1	-	
University of Arizona . .	4	6	5	14	5	5	13	6	8	8	2	-	6	4	3	15	7	3	12	2	2	14	6	-	8	3	3	16	5	2	
<u>CALIFORNIA</u>																															
California State																															
University, Northridge .	-	NA	-	3*	-	-	5*	1*	-	7	2	-	7	1	-	8	2	-	7	5	-	11	-	-	4	-	-	-	-	-	
San Jose State University	7	-	-	8	-	-	-	-	-	7	-	-	8	-	-	2	1	-	3	1	-	1	-	-	3	1	-	-	-	-	
Stanford University . . .	-	12	2	-	30	5	-	15	2	-	8	1	-	5	2	-	7	5	-	8	3	-	3	2	-	6	1	-	3*	1	
University of California,																															
Berkeley	-	26	5	-	16	11	-	22	10	3	28	10	-	9	5	-	17	8	-	23	8	-	13	10	-	20	5	-	20	4	
University of California,																															
Davis.	-	-	2	-	-	2	-	-	1	-	-	2	Program Discontinued																		
University of California,																															
Los Angeles.	-	7	3	-	8	5	15	6	5	-	9	6	9	-	4	-	5	5	-	5	1	-	4	4	-	4	5	8*	7	1	
University of California,																															
Santa Barbara.	First Degree awarded						1	1	-	8	1	-	9	-	-	10	2	-	4	1	1	7	1	1	9	1	-	10	2	-	
	1970-1971																														
<u>COLORADO</u>																															
Colorado State University	First Degree Awarded 1971-1972										-	1	-	-	2	1	-	-	1	-	1	-	-	2	-	-	1	-	-	-	-
<u>CONNECTICUT</u>																															
Hartford Graduate Center	-	2	-	-	5	-	-	2	-	-	1	-	-	2	-	-	2	-	-	3	-	-	5	-	-	3	-	Program Discontinued			
U.S.Coast Guard Academy.	First Degree awarded 1972-1973												7	-	-	4	-	-	6	-	-	Program Discontinued									
<u>DISTRICT OF COLUMBIA</u>																															
Catholic University of																															
America.	-	11	1	-	6	3	-	12	2	-	-	2	-	5	2	-	10	2	1	10	1	2	9	-	1	9	-	-	-	-	
Howard University. . . .	-	1	-	-	1	-	-	2	-	-	1	-	11	-	-	7*	3	-	-	3	-	-	9	-	-	2	-	-	2	-	
<u>FLORIDA</u>																															
University of Florida. . .	16	11	4	15	10	7	15	7	4	11	15	1	10	13	3	14	12	1	23	14	2	28	13	3	42	15	5	37	13	3	
<u>GEORGIA</u>																															
Georgia Institute of																															
Technology.	-	26	2	-	19	3	-	19	9	-	32	7	-	46	6	2	27	3	6	25	1	27	24	4	21	22	2	28	17	5	
<u>IDAHO</u>																															
Idaho State University	5	2	-	9	4	-	3	1	-	6	2	-	7	1	-	9	4	-	2	6	-	7	1	-	8	-	-	13	4	-	
University of Idaho. . .	7	1	-	9	2	-	11	4	1	8	3	-	11	5	-	9	7	-	7	1	-	9	5	-	4	3	-	5	4	-	

**NUCLEAR ENGINEERING
DEGREES GRANTED 1968-1978
By Institution**

B = Bachelors
M = Masters
D = Doctorate

July- June-	1968 1969			1969 1970			1970 1971			1971 1972			1972 1973			1973 1974			1974 1975			1975 1976			1976 1977			1977 1978		
State and Institution	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D
ILLINOIS																														
Northwestern University.	1	5	2	2	4	1	3	3	3	3	1	1	5	6	3	1	2	1	4	7	1	3	6	1	3	7	1	-	3	1
University of Illinois . .	-	21	7	-	19	7	-	23	17	-	23	7	-	25	3	-	22	7	-	31	3	1	41	12	10	24	6	12	18	3
INDIANA																														
Purdue University.	-	12	5	-	6	10	-	10	5	8	12	4	15	9	3	6	10	2	12	10	1	11	12	2	17	28	5	12	11	3
University of Notre Dame .	6	1	1	5	3	1	1	1	1	2	-	-	6	-	-	6	2	-	5	-	1	2	2	-	4	-	-	4	-	-
IOWA																														
Iowa State University. . .	-	6	9	-	5	10	-	6	4	-	14	7	-	5	4	-	8	2	-	8	5	-	3	2	-	12	2	-	5	4
KANSAS																														
Kansas State University .	13	6	4	14	3	3	13	5	1	17	11	6	21	8	6	17	5	3	18	5	3	10	4	4	20	8	-	17	4	2
University of Kansas . . .	Program Discontinued																													
KENTUCKY																														
University of Kentucky . .	6	2	-	4	2	1	3	2	-	-	3	-	-	2	-	-	1	-	-	2	-	-	2	-	-	4	2	-	2	1
LOUISIANA																														
Louisiana State University	-	2	-	-	2	-	-	2	-	-	3	-	5	4	-	5	8	-	4	4	-	3	3	-	3	5	-	2	5	-
Louisiana Tech University.	First Degree Reported 1976-1977																													
MAINE																														
University of Maine. . . .	-	-	-	-	-	-	-	-	-	2*	-	-	2*	-	-	2*	-	-	2	-	-	2	-	-	5	-	-	5	-	-
MARYLAND																														
University of Maryland. . .	-	4	5	-	5	7	6	9	8	6	4	6	16	2	-	5	5	2	4	4	3	9	4	4	10	8	5	13	5	3
MASSACHUSETTS																														
Massachusetts Institute of Technology.	-	41	14	-	39	22	-	31	14	-	31	21	-	34	14	-	44	8	-	37	7	-	37	23	2	43	23	-	63	20
University of Lowell. . . .	18	2	-	19	-	-	12	-	-	37	2	-	40	1	-	27	6	-	27	6	-	23	7	-	39	9	-	23	5	-
Worcester Polytechnic Institute.	18*	-	-	16*	-	-	13*	-	-	15	-	-	12*	-	-	17*	-	-	14*	-	-	13*	-	-	17*	-	-	12	-	-
MICHIGAN																														
Michigan Technical University	First Degree Reported 1976-1977																													
University of Michigan. . .	9	18	10	23	19	8	15	20	8	20	9	15	25	18	6	23	16	18	20	21	9	44	33	13	31	21	7	27	28	10
MISSISSIPPI																														
Mississippi State University	8	5	-	7	2	-	6	-	-	10	1	-	11	2	-	11	-	-	14	1	-	14	2	-	14	-	-	10	2	-
MISSOURI																														
University of Missouri, Columbia	-	1	-	-	7	1	-	6	1	13*	7	12	32*	11	4	44*	7	-	-	5	1	-	5	2	-	7	3	-	11	7
University of Missouri, Rolla.	4	7	-	7	1	-	11	6	1	8	9	11	13	6	1	13	7	-	14	5	1	18	2	3	15	8	-	6	3	1

APPENDIX A-1
(Continued)

NUCLEAR ENGINEERING
DEGREES GRANTED 1968-1978
By Institution

B = Bachelors
M = Masters
D = Doctorate

July- June-	1968 1969	1969 1970	1970 1971	1971 1972	1972 1973	1973 1974	1974 1975	1975 1976	1976 1977	1977 1978
State and Institution										
NEVADA										
University of Nevada, Reno.	3 1 -	1 1 -	5 - -	4 - -	2 - -	1 - -	1 1 -	Program Discontinued		
NEW JERSEY										
New Jersey Institute of Technology	18 - -	18 1 -	16 - -	17 - -	17 - -	17 - -	17 - -	11 - -	8 9 -	13 - -
NEW MEXICO										
University of New Mexico	- 9 2	2 12 4	6 9 4	3 9 2	4 12 1	- 6 2	- 17 2	- 9 2	- 11 2	- 6 -
NEW YORK										
Clarkson College of Technology.								60 2 -	53 2 -	27 - -
Columbia University.	8 4 6	10 10 8	8 7 10	3 8 4	8 6 1	16 7 4	5 7 3	7 4 1	8 13 2	9 10 3
Cornell University	- - 2	- 5 5	- 6 3	- 9 2	- 6 2	- 13 1	- 6 1	- 10 3	- 9 -	- 7 2
Long Island U-CW Post College	- 4 -	- 5 -	- 2 -	Program Discontinued						
Polytechnic Institute of New York.	5 4 2	9 9 1	15 4 1	8 11 1	6 13 2	4* 15* 2*	- 7 -	- - -	6 32 1	2 18 1
Rensselaer Polytechnic Institute	16 7 11	10 13 4	9 6 3	20 13 4	17 14 1	13 19 7	24 15 5	43 14 3	35 21 7	35 21 2
State University of New York, Buffalo	4 1 -	3 8 -	7 2 -	3 2 -	9 - -	4 2 -	6 7 -	4 5 -	7 9 2	10 7 1
State University of New York, Maritime.	First Degree Awarded 1969-1970	10* - -	10* - -	10* - -	10* - -	10 - -	19 - -	9 - -	16 - -	17 - -
NORTH CAROLINA										
North Carolina State University.	19 4 5	19 7 5	29 9 3	21 10 3	26 13 3	32 4 5	21 5 3	23 3 2	19 6 -	22 8 2
OHIO										
Air Force Institute of Technology.	- 20 1	- 16 1	- 16 1	- 11 3	- 6 1	- 10 1	- 13 1	- 6 1	- 8 -	- 11 -
Case Western Reserve University.	- - 2	- - 3	- 2 -	- 2 2	- 2 1	4 - 2	- 2 -	- 1 1	- 2 -	- 3 -
Ohio State University.	3 4 2	5 16 2	7 8 4	5 6 2	5 11 6	6 10 3	6 7 5	8 8 6	12 10 1	14 9 1
University of Cincinnati	- 4 -	4 8 -	8 7 1	2 14 4	2 7 3	1 3 1	6 5 2	7 16 4	15 10 4	13 6 5
OKLAHOMA										
Oklahoma State University.	First Degree Awarded	1971-1972		- - 1	- - -	Program Discontinued				
University of Oklahoma	- - -	- - -	2 1 -	5 3 -	3 1 2	3 1 1	10 1 -	8 2 -	8 3 -	11 1 -
OREGON										
Oregon State University.	2 3 -	9 2 1	7 2 1	13 2 -	15 2 -	30 5 1	16 4 1	31 1 2	34 9 1	26 2 -
PENNSYLVANIA										
Carnegie-Mellon University.	- 6 4	- 7 1	- 14 5	- 14 5	- 17 8	- 11 2	- 14 2	- 12 2	- 15 2	- 5 1
Pennsylvania State University.	2 8 6	5 12 2	16 12 2	12 16 3	21 12 3	19 21 2	15 14 -	29 16 7	42 9 3	36 13 1
University of Pennsyl- vania	Program started 1974-1975									

APPENDIX A-1
(Continued)

NUCLEAR ENGINEERING
DEGREES GRANTED 1968-1978
By Institution

B = Bachelors
M = Masters
D = Doctorate

July- June-	1968 1969			1969 1970			1970 1971			1971 1972			1972 1973			1973 1974			1974 1975			1975 1976			1976 1977			1977 1978						
State and Institution	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D				
PUERTO RICO																																		
University of Puerto Rico	-	4	-	-	3	-	-	5	-	-	5	-	-	5	-	-	5	-	-	5	-	-	5	-	-	-	-	-	-	-				
RHODE ISLAND																																		
University of Rhode Island.	First Degree Awarded 1970-1971						-	2	-	-	-	-	1	1	-	1	-	-	2	-	-	-	-	1	-	-	1	-	-					
SOUTH CAROLINA																																		
University of South Carolina.	-	2	-	Program Discontinued																														
SOUTH DAKOTA																																		
South Dakota State University.	First Degree Awarded 1970-1971						1	-	-	2	-	-	2	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-					
TENNESSEE																																		
Memphis State University	6	2	-	19	1	-	8	8	-	15	4	-	18	6	-	19	3	-	15	10	-	-	-	-	1	-	-	Program Discontinued						
Tennessee Technological University.	7	-	-	9	-	-	13	-	-	7	-	-	6	-	-	9	-	-	8	-	-	8	-	-	2	-	-	3	-	-				
University of Tennessee.	17	10	8	29	4	2	14	7	8	24	3	3	12	5	2	16	4	1	22	8	1	11	5	7	22	10	6	24	10	1				
Vanderbilt University.	18	-	1	20	-	-	11	-	-	10	-	-	10	-	-	12*	-	-	Program Discontinued															
TEXAS																																		
Texas A&M University	8	8	2	5	3	3	11	6	3	20	5	1	32	15	2	31	9	1	20	9	-	36	2	2	37	7	2	54	17	4				
University of Texas, Austin	-	8	1	-	4	1	-	3	3	20	5	1	25	4	3	10	3	3	15	2	1	-	3	2	25	6	1	25	6	1				
UTAH																																		
Brigham Young University	First Degree Awarded 1974-1975															-	3	-	4	2	-	5	2	1	7	-	2							
University of Utah.	7	3	1	8	3	2	21	2	-	22	5	-	25*	7	-	20*	2	1	12	3	-	-	7	-	-	3	-	-	1	-				
Utah State University	9	1	1	13	2	-	9	2	-	7	2	-	12	6	-	8	2	-	4	2	-	6	2	-	4	1	-	16	5	-				
VIRGINIA																																		
University of Virginia.	-	1	2	5	15	7	18	14	2	32	11	3	30	11	5	15	18	4	28	8	9	24	24	2	16	29	1	27	26	3				
Virginia Polytechnic Institute.	15	1	4	26	1	4	23	1	1	26	5	1	31	13	1	33	6	-	18	10	2	24	14	-	30	8	1	23	13	1				
WASHINGTON																																		
University of Washington	-	6	4	-	10	3	-	20	1	-	10	1	-	15	3	-	16	5	-	16	2	-	11	4	-	12	2	-	14	-				
Washington State University	-	2	-	-	1	2	-	2	2	3	2	-	4	-	-	7	-	-	-	-	-	Program Discontinued												

APPENDIX A-1
(Continued)

NUCLEAR ENGINEERING
DEGREES GRANTED 1968-1978
By Institution

B = Bachelors
M = Masters
D = Doctorate

July- June-	1968 1969			1969 1970			1970 1971			1971 1972			1972 1973			1973 1974			1974 1975			1975 1976			1976 1977			1977 1978		
State and Institution	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D	B	M	D
<u>WEST VIRGINIA</u>																														
West Virginia University.	-	1	1	-	1	1	-	-	1	-	-	1	-	-	-	Program Discontinued														
<u>WISCONSIN</u>																														
University of Wisconsin	21	17	4	24	7	7	15	10	7	18	15	3	20	14	6	22	15	6	21	12	4	21	6	4	21	19	7	30	22	8
<u>WYOMING</u>																														
University of Wyoming	1	-	-	3	-	-	2	-	-	-	1	-	-	-	-	Program Discontinued														
TOTALS	315	385	154	424	413	182	448	414	171	536	436	151	663	452	128	628	465	128	529	475	101	648	468	145	758	554	121	777	487	110

*Estimates

APPENDIX A-2

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION

 FT = FULL TIME
 PT = PART TIME

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
ALABAMA													
TUSKEGEE INSTITUTE NUCLEAR ENGINEERING							5					1	
ARIZONA													
ARIZONA STATE UNIVERSITY													
NUCLEAR ENGINEERING	30		29				2				29	1	
CHEMICAL, WITH NUCLEAR OPTION	1		2								2		
ENGINEERING SCIENCE, WITH NUCLEAR OPTION	18		15				1				15		
ELECTRICAL, WITH NUCLEAR OPTION	1		1								1		
MECHANICAL, WITH NUCLEAR OPTION	10		10				1				10		
CIVIL, WITH NUCLEAR OPTION											1		
UNIVERSITY OF ARIZONA NUCLEAR ENGINEERING	21		20				23	2	8	6	16	5	2
CALIFORNIA													
STANFORD UNIVERSITY MECHANICAL, WITH NUCLEAR OPTION									2			3	1
UNIVERSITY OF CALIFORNIA, BERKELEY													
NUCLEAR ENGINEERING							36	2	43			20	4
ELECTRICAL, WITH NUCLEAR OPTION	10		11										
MECHANICAL, WITH NUCLEAR OPTION	8		4										
CIVIL, WITH NUCLEAR OPTION	1		3										
ENGINEERING PHYSICS, WITH NUCLEAR OPTION			2										
INDUSTRIAL	1		1										
MATERIALS SCIENCE			2										

APPENDIX A-2 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION

FT = FULL TIME
PT = PART TIME

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT - FALL 1978								DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE		JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	
CALIFORNIA (CONTINUED)											
UNIVERSITY OF CALIFORNIA, LOS ANGELES NUCLEAR ENGINEERING							13	24	8	7	1
UNIVERSITY OF CALIFORNIA, SANTA BARBARA NUCLEAR ENGINEERING CHEMICAL, WITH NUCLEAR OPTION	18		19				3	1	10	2	
COLORADO											
COLORADO STATE UNIVERSITY MECHANICAL, WITH NUCLEAR OPTION							2	1			
CONNECTICUT											
THE HARTFORD GRADUATE CENTER ENGINEERING SCIENCE, WITH NUCLEAR OPTION							3			1	
DISTRICT OF COLUMBIA											
HOWARD UNIVERSITY MECHANICAL, WITH NUCLEAR OPTION			2				11			2	
FLORIDA											
UNIVERSITY OF FLORIDA NUCLEAR ENGINEERING	29		19		24		21	8 7 1	37	13	3

APPENDIX A-2 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION

FT = FULL TIME

PT = PART TIME

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
GEORGIA													
GEORGIA INSTITUTE OF TECHNOLOGY NUCLEAR ENGINEERING	29	7	33				23	2	13	2	28	17	5
IDAHO													
IDAHO STATE UNIVERSITY NUCLEAR ENGINEERING GENERAL, WITH NUCLEAR OPTION	23	2	33	7			4	9			13	4	
UNIVERSITY OF IDAHO NUCLEAR ENGINEERING CHEMICAL, WITH NUCLEAR OPTION MECHANICAL, WITH NUCLEAR OPTION METALLURGICAL, WITH NUCLEAR OPTION	2		2	2	1		1	32			2	3	
											2	1	
											1		
ILLINOIS													
NORTHWESTERN UNIVERSITY NUCLEAR ENGINEERING ENGINEERING SCIENCE, WITH NUCLEAR OPTION	3						3	5	8	2		3	1
UNIVERSITY OF ILLINOIS NUCLEAR ENGINEERING	30		14				26	3	57	5	12	18	3
INDIANA													
PURDUE UNIVERSITY NUCLEAR ENGINEERING MECHANICAL, WITH NUCLEAR OPTION INTERDISCIPLINARY ENGINEERING APPLIED PHYSICS	21		30		21		19		14	1	12	11	3
	4		2		1								
	2		2		3								

APPENDIX A-2 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION

FT = FULL TIME

PT = PART TIME

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT - FALL 1978												DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE						JULY 1977 - JUNE 1978		
	3RD YEAR		4TH YEAR		5TH YEAR		MASTER		DOCTORATE				BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT					
INDIANA (CONTINUED)															
UNIVERSITY OF NOTRE DAME MECHANICAL, WITH NUCLEAR OPTION	10		7										4		
IOWA															
IOWA STATE UNIVERSITY NUCLEAR ENGINEERING	12		7				13	1	12	1			5	4	
KANSAS															
KANSAS STATE UNIVERSITY NUCLEAR ENGINEERING	17		37				13	2	10	3			17	4	2
KENTUCKY															
UNIVERSITY OF KENTUCKY MECHANICAL, WITH NUCLEAR OPTION							2	2					2	1	
LOUISIANA															
LOUISIANA STATE UNIVERSITY NUCLEAR ENGINEERING ENGINEERING SCIENCE, WITH NUCLEAR OPTION					2		4	6					2	5	

APPENDIX A-2 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION

FT = FULL TIME

PT = PART TIME

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
MAINE													
UNIVERSITY OF MAINE													
ENGINEERING PHYSICS, WITH NUCLEAR OPTION	2		2		3						4		
PHYSICS, WITH NUCLEAR OPTION											1		
MARYLAND													
UNIVERSITY OF MARYLAND													
NUCLEAR ENGINEERING			14		14	2	5	4	9	7	13	5	3
CHEMICAL, WITH NUCLEAR OPTION					2								
ENGINEERING SCIENCE, WITH NUCLEAR OPTION					1								
ELECTRICAL, WITH NUCLEAR OPTION			1		19								
MECHANICAL, WITH NUCLEAR OPTION					2								
PHYSICAL SCIENCE					4								
FIRE PROTECTION ENGINEERING					1								
ASTRONOMICAL ENGINEERING					1								
AGRICULTURAL ENGINEERING	1												
MASSACHUSETTS													
MASSACHUSETTS INSTITUTE OF TECHNOLOGY													
NUCLEAR ENGINEERING	15		9		7		110	1	54			63	20
UNIVERSITY OF LOWELL													
NUCLEAR ENGINEERING	15		27		1		14	3			23	5	
WORCESTER POLYTECHNIC INSTITUTE													
ELECTRICAL, WITH NUCLEAR OPTION	6		6								6		
MECHANICAL, WITH NUCLEAR OPTION	6		6								6		

APPENDIX A-2 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION

 FT = FULL TIME
 PT = PART TIME

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR		4TH YEAR		5TH YEAR		MASTER		DOCTORATE		BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
MICHIGAN													
MICHIGAN TECHNICAL UNIVERSITY													
CHEMICAL, WITH NUCLEAR OPTION	4		6								5		
ELECTRICAL, WITH NUCLEAR OPTION	10		10								6		
MECHANICAL, WITH NUCLEAR OPTION	10		10								4	1	
PHYSICS, WITH NUCLEAR OPTION	5		5										
METALLURGICAL, WITH NUCLEAR OPTION	5		5				1						
UNIVERSITY OF MICHIGAN													
NUCLEAR ENGINEERING	35		31				58	6	24		27	28	10
MISSISSIPPI													
MISSISSIPPI STATE UNIVERSITY													
NUCLEAR ENGINEERING	19		20				6				10	2	
MISSOURI													
UNIVERSITY OF MISSOURI, COLUMBIA													
NUCLEAR ENGINEERING							21	6	21	3		11	7
CHEMICAL, WITH NUCLEAR OPTION	5		5										
ELECTRICAL, WITH NUCLEAR OPTION	8		18										
MECHANICAL, WITH NUCLEAR OPTION	6		15										
UNIVERSITY OF MISSOURI, ROLLA													
NUCLEAR ENGINEERING	29		19				1	10	3		6	3	1

APPENDIX A-2 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION

FT = FULL TIME

PT = PART TIME

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
NEW JERSEY													
NEW JERSEY INSTITUTE OF TECHNOLOGY													
CHEMICAL, WITH NUCLEAR OPTION												2	
ENGINEERING SCIENCE, WITH NUCLEAR OPTION	3	2	5									2	
ELECTRICAL, WITH NUCLEAR OPTION	1		3									5	
MECHANICAL, WITH NUCLEAR OPTION			2									3	
COMPUTER SCIENCE, WITH NUCLEAR OPTION			1									1	
NEW MEXICO													
UNIVERSITY OF NEW MEXICO													
NUCLEAR ENGINEERING							13	7	7	9		6	
NEW YORK													
CLARKSON COLLEGE OF TECHNOLOGY													
CHEMICAL, WITH NUCLEAR OPTION	8		10									13	
ELECTRICAL, WITH NUCLEAR OPTION	1		7									9	
MECHANICAL, WITH NUCLEAR OPTION	8		2									4	
CIVIL, WITH NUCLEAR OPTION	1											1	
COLUMBIA UNIVERSITY													
NUCLEAR ENGINEERING	5		10				8	6	12	3	9	10	3
CORNELL UNIVERSITY													
NUCLEAR ENGINEERING							4		3	2		7	2
POLYTECHNIC INSTITUTE OF NEW YORK													
NUCLEAR ENGINEERING	5		8				1	30		6	2	18	1

APPENDIX A-2 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION

FT = FULL TIME

PT = PART TIME

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
NEW YORK (CONTINUED)													
RENSSELAER POLYTECHNIC INSTITUTE NUCLEAR ENGINEERING MECHANICAL, WITH NUCLEAR OPTION	17		23		32	1	42	7	28	6	35	21	2
STATE UNIVERSITY OF NEW YORK, BUFFALO NUCLEAR ENGINEERING ENGINEERING SCIENCE, WITH NUCLEAR OPTION	13		9				6	4		3	10	7	1
SUNY, MARITIME COLLEGE ENGINEERING SCIENCE, WITH NUCLEAR OPTION	9		12								17		
NORTH CAROLINA													
NORTH CAROLINA STATE UNIVERSITY NUCLEAR ENGINEERING	18		21				25	4	19	1	22	8	2
OHIO													
AIR FORCE INSTITUTE OF TECHNOLOGY NUCLEAR ENGINEERING							22		2	3		11	
CASE WESTERN RESERVE UNIVERSITY ELECTRICAL, WITH NUCLEAR OPTION							1		1			3	
OHIO STATE UNIVERSITY NUCLEAR ENGINEERING ENGINEERING SCIENCE, WITH NUCLEAR OPTION MECHANICAL, WITH NUCLEAR OPTION	6 16		7 17				17	3	8	8	5 9	9	1

APPENDIX A-2 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION

FT = FULL TIME
PT = PART TIME

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT - FALL 1978								DEGREES GRANTED				
	UNDERGRADUATE						GRADUATE		JULY 1977 - JUNE 1978				
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE	BACH	MASTER	PHD		
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
OHIO (CONTINUED)													
UNIVERSITY OF CINCINNATI NUCLEAR ENGINEERING	23		12		16		15	5	5	2	13	6	5
OKLAHOMA													
UNIVERSITY OF OKLAHOMA NUCLEAR ENGINEERING	16	2	7				6	1	3		11	1	
OREGON													
OREGON STATE UNIVERSITY NUCLEAR ENGINEERING NUCLEAR ENGINEERING TECHNOLOGY	29 7		41 8		2		19		2		19 7	2	
PENNSYLVANIA													
CARNEGIE-MELLON UNIVERSITY NUCLEAR ENGINEERING							2	23	3	5		5	1
PENNSYLVANIA STATE UNIVERSITY NUCLEAR ENGINEERING	41		54				35	8	9		36	13	1
UNIVERSITY OF PENNSYLVANIA MECHANICAL, WITH NUCLEAR OPTION						1		4					

APPENDIX A-2 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION

FT = FULL TIME

PT = PART TIME

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE					
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	BACH	MASTER	PHD
PUERTO RICO													
UNIVERSITY OF PUERTO RICO, MAYAGUEZ MECHANICAL, WITH NUCLEAR OPTION					7		1						
RHODE ISLAND													
UNIVERSITY OF RHODE ISLAND NUCLEAR ENGINEERING					1		1						
TENNESSEE													
TENNESSEE TECHNOLOGICAL UNIVERSITY ENGINEERING SCIENCE, WITH NUCLEAR OPTION	7		7				2				3		
UNIVERSITY OF TENNESSEE NUCLEAR ENGINEERING	22		21				29	6	12		24	10	1
TEXAS													
TEXAS A&M UNIVERSITY NUCLEAR ENGINEERING	51		54				21	2	5	1	54	17	4
THE UNIVERSITY OF TEXAS AT AUSTIN NUCLEAR ENGINEERING ENGINEERING SCIENCE, WITH NUCLEAR OPTION MECHANICAL, WITH NUCLEAR OPTION	3 25		3 25		6		8	2	4		25	6	1

APPENDIX A-2 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION

FT = FULL TIME
PT = PART TIME

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR		4TH YEAR		5TH YEAR		MASTER		DOCTORATE		BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
UTAH													
BRIGHAM YOUNG													
CHEMICAL, WITH NUCLEAR OPTION	1		2				5		1		4		2
ELECTRICAL, WITH NUCLEAR OPTION			2								2		
MECHANICAL, WITH NUCLEAR OPTION			1								1		
UNIVERSITY OF UTAH													
NUCLEAR ENGINEERING							3	1	1	2		1	
CHEMICAL, WITH NUCLEAR OPTION				1									
ELECTRICAL, WITH NUCLEAR OPTION				2									
MECHANICAL, WITH NUCLEAR OPTION	1		5										
UTAH STATE UNIVERSITY													
MECHANICAL, WITH NUCLEAR OPTION				16			5				16	5	
VIRGINIA													
UNIVERSITY OF VIRGINIA													
NUCLEAR ENGINEERING	34		18		4		24	3	9	1	27	26	3
VIRGINIA POLYTECHNIC INSTITUTE													
NUCLEAR ENGINEERING				7			14	5	5	2	3	13	1
CHEMICAL, WITH NUCLEAR OPTION				4							5		
ENGINEERING SCIENCE, WITH NUCLEAR OPTION				1							3		
ELECTRICAL, WITH NUCLEAR OPTION				5							1		
MECHANICAL, WITH NUCLEAR OPTION				7							5		
CIVIL, WITH NUCLEAR OPTION				4							3		
AEROSPACE				1							1		
METALLURGICAL, WITH NUCLEAR OPTION				1							1		
INDUSTRIAL											1		

APPENDIX A-2 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY INSTITUTION

FT = FULL TIME
PT = PART TIME

STATE - INSTITUTION AND SUBFIELD	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
WASHINGTON													
UNIVERSITY OF WASHINGTON NUCLEAR ENGINEERING							19	13	13	3		14	
WISCONSIN													
UNIVERSITY OF WISCONSIN, MADISON NUCLEAR ENGINEERING	32		36				31	1	34		30	22	8
TOTALS	885	13	1003	7	173	3	818	246	500	85	777	487	110
	898		1010		176		1064		585				

APPENDIX A-3

NUCLEAR ENGINEERING

NUMBER OF DEGREES AND ENROLLMENTS BY SUBFIELD IN FALL 1978

CURRICULUM	ENROLLMENT										DEGREES		
	3RD YEAR		4TH YEAR		5TH YEAR		MASTER		DOCTORATE		BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
NUCLEAR ENGINEERING	626	9	649		122	2	787	234	491	84	543	463	104
CHEMICAL, WITH NUCLEAR OPTION	19		32		2		5		2		33		2
ELECTRICAL, WITH NUCLEAR OPTION	51	2	54		10		3	3	3		51	1	1
ENGINEERING SCIENCE, WITH NUCLEAR OPTION	37		66		19		1		1		30	3	
MECHANICAL, WITH NUCLEAR OPTION	102		131		10	1	21	9	3	1	89	20	3
OTHER ENGINEERING, WITH NUCLEAR OPTIONS	50	2	71	7	10		1				31		

APPENDIX A-4

NUCLEAR ENGINEERING

MINORITIES, WOMEN AND FOREIGN NATIONALS

FT = FULL TIME

PT = PART TIME

STATE - INSTITUTION	ENROLLMENT - FALL 1978								DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE		JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	
ALABAMA											
TUSKEGEE INSTITUTE											
FOREIGN NATIONAL MALES							4				1
BLACK MALES, U. S. CITIZENS							1				
ARIZONA											
ARIZONA STATE UNIVERSITY											
FOREIGN NATIONAL FEMALES									1		
WHITE FEMALES, U. S. CITIZENS	1										
UNIVERSITY OF ARIZONA											
FOREIGN NATIONAL MALES	6						8	2	2		
FOREIGN NATIONAL FEMALES							1				
WHITE FEMALES, U. S. CITIZENS	1		1				1	1	2		
BLACK MALES, U. S. CITIZENS									1		
SPANISH-SURNAMED MALES, U. S. CITIZENS			1				2				
SPANISH-SURNAMED FEMALES, U. S. CITIZENS	1										
ASIAN AMERICAN MALES, U. S. CITIZENS	1							1			
CALIFORNIA											
UNIVERSITY OF CALIFORNIA, BERKELEY											
FOREIGN NATIONAL MALES							11	39			10
FOREIGN NATIONAL FEMALES							1	3			1
WHITE FEMALES, U. S. CITIZENS							11				3
SPANISH-SURNAMED MALES, U. S. CITIZENS							1				1
ASIAN AMERICAN MALES, U. S. CITIZENS							2	1	1		1
UNIVERSITY OF CALIFORNIA, LOS ANGELES											
FOREIGN NATIONAL MALES							6	14			1
FOREIGN NATIONAL FEMALES								1			1
WHITE FEMALES, U. S. CITIZENS											1
SPANISH-SURNAMED MALES, U. S. CITIZENS											1
ASIAN AMERICAN MALES, U. S. CITIZENS							3	2			
ASIAN AMERICAN FEMALES, U. S. CITIZENS							1				

APPENDIX A-4 (CONTINUED)

NUCLEAR ENGINEERING

MINORITIES, WOMEN AND FOREIGN NATIONALS

FT = FULL TIME
PT = PART TIME

STATE - INSTITUTION	ENROLLMENT - FALL 1978								DEGREES GRANTED				
	UNDERGRADUATE						GRADUATE		JULY 1977 - JUNE 1978				
	3RD YEAR	4TH YEAR	5TH YEAR		MASTER	DOCTORATE							
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	BACH	MASTER	PHD
CALIFORNIA (CONTINUED)													
UNIVERSITY OF CALIFORNIA, SANTA BARBARA													
FOREIGN NATIONAL MALES	3		5									2	
WHITE FEMALES, U. S. CITIZENS	3		3										
ASIAN AMERICAN MALES, U. S. CITIZENS			1										
ASIAN AMERICAN FEMALES, U. S. CITIZENS			2										
STANFORD UNIVERSITY													
WHITE FEMALES, U. S. CITIZENS													1
DISTRICT OF COLUMBIA													
HOWARD UNIVERSITY													
FOREIGN NATIONAL MALES			1				11					1	
BLACK MALES, U. S. CITIZENS			1									1	
FLORIDA													
UNIVERSITY OF FLORIDA													
FOREIGN NATIONAL MALES	2		2				8	1	2	1	3	2	2
WHITE FEMALES, U. S. CITIZENS	1		1								2		
BLACK MALES, U. S. CITIZENS	1												
SPANISH-SURNAMED MALES, U. S. CITIZENS	4				1		1		1		1		
SPANISH-SURNAMED FEMALES, U. S. CITIZENS	2		1									1	
ASIAN AMERICAN MALES, U. S. CITIZENS	2						1					1	

APPENDIX A-4 (CONTINUED)

NUCLEAR ENGINEERING

MINORITIES, WOMEN AND FOREIGN NATIONALS

FT = FULL TIME

PT = PART TIME

STATE - INSTITUTION	ENROLLMENT - FALL 1978												DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE						JULY 1977 - JUNE 1978		
	3RD YEAR		4TH YEAR		5TH YEAR		MASTER		DOCTORATE				BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT					
GEORGIA															
GEORGIA INSTITUTE OF TECHNOLOGY															
FOREIGN NATIONAL MALES	2		2				7		9	2			1		4
WHITE FEMALES, U. S. CITIZENS	1		1										1	2	
BLACK MALES, U. S. CITIZENS			1				2						3	1	
BLACK FEMALES, U. S. CITIZENS			1												
SPANISH-SURNAMED MALES, U. S. CITIZENS			1											1	
IDAHO															
IDAHO STATE UNIVERSITY															
FOREIGN NATIONAL MALES	4		1					1							
WHITE FEMALES, U. S. CITIZENS	2		1					1					2		
UNIVERSITY OF IDAHO															
FOREIGN NATIONAL MALES														1	
WHITE FEMALES, U. S. CITIZENS								2							
ILLINOIS															
NORTHWESTERN UNIVERSITY															
FOREIGN NATIONAL MALES								2	4	1				2	
WHITE FEMALES, U. S. CITIZENS															1
UNIVERSITY OF ILLINOIS															
FOREIGN NATIONAL MALES							8		20	1			1	6	1
FOREIGN NATIONAL FEMALES							1								
WHITE FEMALES, U. S. CITIZENS	2						4						2		
BLACK MALES, U. S. CITIZENS									1						
ASIAN AMERICAN MALES, U. S. CITIZENS							1								

APPENDIX A-4 (CONTINUED)

NUCLEAR ENGINEERING

MINORITIES, WOMEN AND FOREIGN NATIONALS

 FT = FULL TIME
 PT = PART TIME

STATE - INSTITUTION	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
INDIANA													
PURDUE UNIVERSITY													
FOREIGN NATIONAL MALES	4		2		2		6		8		2	1	
WHITE FEMALES, U. S. CITIZENS	1		3		1				1				1
BLACK MALES, U. S. CITIZENS					1						1		
UNIVERSITY OF NOTRE DAME													
WHITE FEMALES, U. S. CITIZENS	2		1										
IOWA													
IOWA STATE UNIVERSITY													
FOREIGN NATIONAL MALES	1						8	1	10	1		1	1
FOREIGN NATIONAL FEMALES			1										
WHITE FEMALES, U. S. CITIZENS	1		1										
ASIAN AMERICAN MALES, U. S. CITIZENS									1				
KANSAS													
KANSAS STATE UNIVERSITY													
FOREIGN NATIONAL MALES							4		5		1	3	2
WHITE FEMALES, U. S. CITIZENS								1					
KENTUCKY													
UNIVERSITY OF KENTUCKY													
FOREIGN NATIONAL MALES	1	2										1	1

APPENDIX A-4 (CONTINUED)

NUCLEAR ENGINEERING

MINORITIES, WOMEN AND FOREIGN NATIONALS

FT = FULL TIME

PT = PART TIME

STATE - INSTITUTION	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
LOUISIANA													
LOUISIANA STATE UNIVERSITY													
FOREIGN NATIONAL MALES							1					2	
SPANISH-SURNAMED MALES, U. S. CITIZENS								1					
MARYLAND													
UNIVERSITY OF MARYLAND													
FOREIGN NATIONAL MALES			2		1				2	2	2		
FOREIGN NATIONAL FEMALES													
WHITE FEMALES, U. S. CITIZENS			1		2	1			1				
BLACK MALES, U. S. CITIZENS					1		1					1	
ASIAN AMERICAN MALES, U. S. CITIZENS			3				1		2	1			
ASIAN AMERICAN FEMALES, U. S. CITIZENS									1				
MASSACHUSETTS													
MASSACHUSETTS INSTITUTE OF TECHNOLOGY													
FOREIGN NATIONAL MALES			1		2		52		20			22	9
FOREIGN NATIONAL FEMALES							2					5	
WHITE FEMALES, U. S. CITIZENS			1				3	1	1			1	
BLACK MALES, U. S. CITIZENS							2						1
SPANISH-SURNAMED MALES, U. S. CITIZENS	2						1						
ASIAN AMERICAN MALES, U. S. CITIZENS	1				1		2		1			1	
UNIVERSITY OF LOWELL													
FOREIGN NATIONAL MALES	1		1				3				2		
WHITE FEMALES, U. S. CITIZENS	2		2								1		
SPANISH-SURNAMED MALES, U. S. CITIZENS					1								

APPENDIX A-4 (CONTINUED)

NUCLEAR ENGINEERING

MINORITIES, WOMEN AND FOREIGN NATIONALS

FT = FULL TIME
PT = PART TIME

STATE - INSTITUTION	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
MICHIGAN													
UNIVERSITY OF MICHIGAN													
FOREIGN NATIONAL MALES	5						17	2	13				
FOREIGN NATIONAL FEMALES							1						
WHITE FEMALES, U. S. CITIZENS	1		1				3						
BLACK MALES, U. S. CITIZENS								1					
SPANISH-SURNAMED MALES, U. S. CITIZENS							1						
ASIAN AMERICAN MALES, U. S. CITIZENS							3						
MISSISSIPPI													
MISSISSIPPI STATE UNIVERSITY													
FOREIGN NATIONAL MALES	2										1		
WHITE FEMALES, U. S. CITIZENS	2		2								2		
MISSOURI													
UNIVERSITY OF MISSOURI, COLUMBIA													
FOREIGN NATIONAL MALES	6		8				10		17	1		3	3
FOREIGN NATIONAL FEMALES													1
WHITE FEMALES, U. S. CITIZENS	1		1				2		1				
UNIVERSITY OF MISSOURI, ROLLA													
FOREIGN NATIONAL MALES	6						1		1				1
WHITE FEMALES, U. S. CITIZENS	4												
BLACK MALES, U. S. CITIZENS											1		

APPENDIX A-4 (CONTINUED)

NUCLEAR ENGINEERING

MINORITIES, WOMEN AND FOREIGN NATIONALS

FT = FULL TIME

PT = PART TIME

STATE - INSTITUTION	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE					
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	BACH	MASTER	PHD
NEW JERSEY													
NEW JERSEY INSTITUTE OF TECHNOLOGY													
FOREIGN NATIONAL MALES	1		1								3		
FOREIGN NATIONAL FEMALES											1		
WHITE FEMALES, U. S. CITIZENS											1		
SPANISH-SURNAMED MALES, U. S. CITIZENS	1												
ASIAN AMERICAN MALES, U. S. CITIZENS			2										
NEW MEXICO													
UNIVERSITY OF NEW MEXICO													
FOREIGN NATIONAL MALES							3						
SPANISH-SURNAMED MALES, U. S. CITIZENS							1			1			
ASIAN AMERICAN MALES, U. S. CITIZENS							1		1				
NEW YORK													
CLARKSON COLLEGE OF TECHNOLOGY													
WHITE FEMALES, U. S. CITIZENS	4		3										
BLACK MALES, U. S. CITIZENS	1												
SPANISH-SURNAMED MALES, U. S. CITIZENS			1										
COLUMBIA UNIVERSITY													
FOREIGN NATIONAL MALES	2		2				5	2	10	3	1	3	1
FOREIGN NATIONAL FEMALES			1										
WHITE FEMALES, U. S. CITIZENS			1					2			1	1	
BLACK MALES, U. S. CITIZENS												1	
SPANISH-SURNAMED MALES, U. S. CITIZENS			1				2				2		
ASIAN AMERICAN MALES, U. S. CITIZENS								2					

APPENDIX A-4 (CONTINUED)
NUCLEAR ENGINEERING
MINORITIES, WOMEN AND FOREIGN NATIONALS

FT = FULL TIME
PT = PART TIME

STATE - INSTITUTION	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR		4TH YEAR		5TH YEAR		MASTER		DOCTORATE		BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
NEW YORK (CONTINUED)													
CORNELL UNIVERSITY													
FOREIGN NATIONAL MALES									2	1		1	1
BLACK MALES, U. S. CITIZENS										1			
RENSSELAER POLYTECHNIC INSTITUTE													
FOREIGN NATIONAL MALES				1		16	15	1	18		1	7	
FOREIGN NATIONAL FEMALES						1	2						
WHITE FEMALES, U. S. CITIZENS						1	2				1		
BLACK MALES, U. S. CITIZENS	1									1			
STATE UNIVERSITY OF NEW YORK, BUFFALO													
FOREIGN NATIONAL MALES	1			3			2	1	1		3	4	
WHITE FEMALES, U. S. CITIZENS	2			1							1		
BLACK MALES, U. S. CITIZENS							1						
NORTH CAROLINA													
NORTH CAROLINA STATE UNIVERSITY													
FOREIGN NATIONAL MALES	1			1			10	1	14	1		1	
FOREIGN NATIONAL FEMALES									1				
WHITE FEMALES, U. S. CITIZENS	2												
BLACK MALES, U. S. CITIZENS							1					1	
OHIO													
CASE WESTERN RESERVE UNIVERSITY													
FOREIGN NATIONAL MALES							1						
FOREIGN NATIONAL FEMALES									1				

APPENDIX A-4 (CONTINUED)

NUCLEAR ENGINEERING

MINORITIES, WOMEN AND FOREIGN NATIONALS

 FT = FULL TIME
 PT = PART TIME

STATE - INSTITUTION	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE					
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	BACH	MASTER	PHD
OHIO (CONTINUED)													
OHIO STATE UNIVERSITY													
FOREIGN NATIONAL MALES							6		4		1	2	
WHITE FEMALES, U. S. CITIZENS	1		2									2	
OKLAHOMA													
UNIVERSITY OF OKLAHOMA													
FOREIGN NATIONAL MALES	4		2				5	1	2		5	1	
WHITE FEMALES, U. S. CITIZENS	1		1										
ASIAN AMERICAN MALES, U. S. CITIZENS							1		1				
OREGON													
OREGON STATE UNIVERSITY													
FOREIGN NATIONAL MALES	6		22		2		8		2		1		
FOREIGN NATIONAL FEMALES			1										
WHITE FEMALES, U. S. CITIZENS	1		1				3				5		
BLACK MALES, U. S. CITIZENS											1		
ASIAN AMERICAN MALES, U. S. CITIZENS	1						1				2		
PENNSYLVANIA													
CARNEGIE-MELLON UNIVERSITY													
FOREIGN NATIONAL MALES							1	2	2				1
WHITE FEMALES, U. S. CITIZENS								2					
PENNSYLVANIA STATE UNIVERSITY													
FOREIGN NATIONAL MALES							23	7	4		2	1	
WHITE FEMALES, U. S. CITIZENS	4		1										
BLACK MALES, U. S. CITIZENS			1										
ASIAN AMERICAN MALES, U. S. CITIZENS									1			1	

APPENDIX A-4 (CONTINUED)

NUCLEAR ENGINEERING

MINORITIES, WOMEN AND FOREIGN NATIONALS

FT = FULL TIME

PT = PART TIME

STATE - INSTITUTION	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR		4TH YEAR		5TH YEAR		MASTER		DOCTORATE		BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
PUERTO RICO													
UNIVERSITY OF PUERTO RICO, MAYAGUEZ SPANISH-SURNAMED MALES, U. S. CITIZENS					7				1				
RHODE ISLAND													
UNIVERSITY OF RHODE ISLAND FOREIGN NATIONAL MALES									1				
TENNESSEE													
TENNESSEE TECHNOLOGICAL UNIVERSITY FOREIGN NATIONAL MALES WHITE FEMALES, U. S. CITIZENS	1		2						2				
UNIVERSITY OF TENNESSEE FOREIGN NATIONAL MALES FOREIGN NATIONAL FEMALES WHITE FEMALES, U. S. CITIZENS	4			1					5	8	3	3	
	1		1						2		1		
TEXAS													
TEXAS A&M UNIVERSITY FOREIGN NATIONAL MALES FOREIGN NATIONAL FEMALES WHITE FEMALES, U. S. CITIZENS BLACK MALES, U. S. CITIZENS SPANISH-SURNAMED MALES, U. S. CITIZENS	4		3						5			3	1
	6		11										
			1										
	2		2										

APPENDIX A-4 (CONTINUED)

NUCLEAR ENGINEERING
MINORITIES, WOMEN AND FOREIGN NATIONALS

FT = FULL TIME
PT = PART TIME

STATE - INSTITUTION	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR			MASTER	DOCTORATE						
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	BACH	MASTER	PHD
UTAH													
UNIVERSITY OF UTAH													
FOREIGN NATIONAL MALES			2				1			1			
WHITE FEMALES, U. S. CITIZENS			1										
ASIAN AMERICAN MALES, U. S. CITIZENS			1				1						
UTAH STATE UNIVERSITY													
FOREIGN NATIONAL MALES			3				1				3	1	
BLACK MALES, U. S. CITIZENS			1								1		
ASIAN AMERICAN MALES, U. S. CITIZENS			1								1		
VIRGINIA													
UNIVERSITY OF VIRGINIA													
FOREIGN NATIONAL MALES			1						3				
WHITE FEMALES, U. S. CITIZENS	5						2				3	2	
BLACK MALES, U. S. CITIZENS	1												
VIRGINIA POLYTECHNIC INSTITUTE													
FOREIGN NATIONAL MALES			1				2		2	1			1
WHITE FEMALES, U. S. CITIZENS			2					2			1		
WASHINGTON													
UNIVERSITY OF WASHINGTON													
FOREIGN NATIONAL MALES							7	2	4				
WHITE FEMALES, U. S. CITIZENS									1				
BLACK MALES, U. S. CITIZENS										1			

APPENDIX A-4 (CONTINUED)

NUCLEAR ENGINEERING

MINORITIES, WOMEN AND FOREIGN NATIONALS

FT = FULL TIME
PT = PART TIME

STATE - INSTITUTION	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR		4TH YEAR		5TH YEAR		MASTER		DOCTORATE		BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
WISCONSIN													
UNIVERSITY OF WISCONSIN, MADISON													
FOREIGN NATIONAL MALES	2		4				9		10		4	9	3
WHITE FEMALES, U. S. CITIZENS	2		2				1		1				1
TOTALS	143	0	148	0	39	1	353	46	280	21	83	125	42
	143		148			40	399		301				

APPENDIX A-5
 NUCLEAR ENGINEERING CURRICULUM
 OR OPTIONS BY UNDERGRADUATE OR GRADUATE INSTITUTION
 FALL 1978

NUCLEAR ENGINEERING

UNDERGRADUATE

GRADUATE

Arizona State University	Arizona State University
University of Arizona.	Tuskegee Institute
	University of Arizona
	University of California, Berkeley
University of California, Santa Barbara	University of California, Los Angeles
University of Florida.	University of California, Santa Barbara
Georgia Institute of Technology.	University of Florida
	Georgia Institute of Technology
	Idaho State University
	University of Idaho
	Northwestern University
University of Illinois	University of Illinois
Purdue University.	Purdue University
Iowa State University.	Iowa State University
Kansas State University.	Kansas State University
	Louisiana State University
University of Maryland	University of Maryland
Massachusetts Institute of Technology.	Massachusetts Institute of Technology
University of Lowell.	University of Lowell
University of Michigan	University of Michigan
Mississippi State University	Mississippi State University
	University of Missouri, Columbia
University of Missouri, Rolla.	University of Missouri, Rolla
	University of New Mexico
Columbia University.	Columbia University
	Cornell University
Polytechnic Institute of New York.	Polytechnic Institute of New York
Rensselaer Polytechnic Institute	Rensselaer Polytechnic Institute
State University of New York, Buffalo.	State University of New York, Buffalo

APPENDIX A-5 (Continued)
 NUCLEAR ENGINEERING CURRICULUM
 OR OPTIONS BY UNDERGRADUATE OR GRADUATE INSTITUTION
 FALL 1978

UNDERGRADUATE

GRADUATE

North Carolina State University.	North Carolina State University
	Air Force Institute of Technology
University of Cincinnati	University of Cincinnati
	Ohio State University
University of Oklahoma	University of Oklahoma
Oregon State University.	Oregon State University
	Carnegie-Mellon University
Pennsylvania State University.	Pennsylvania State University
University of Rhode Island	University of Rhode Island
University of Tennessee.	University of Tennessee
Texas A&M University	Texas A&M University
	University of Texas, Austin
	University of Utah
University of Virginia	University of Virginia
Virginia Polytechnic Institute	Virginia Polytechnic Institute
	University of Washington
University of Wisconsin.	University of Wisconsin

CHEMICAL WITH NUCLEAR OPTION

Arizona State University	
	University of California, Santa Barbara
University of Idaho	
University of Maryland	
Michigan Technical University	
University of Missouri, Columbia	
Clarkson College of Technology	
Brigham Young University	Brigham Young University
University of Utah	
Virginia Polytechnic Institute	

APPENDIX A-5 (Continued)
NUCLEAR ENGINEERING CURRICULUM
OR OPTIONS BY UNDERGRADUATE OR GRADUATE INSTITUTION
FALL 1978

ENGINEERING SCIENCE WITH NUCLEAR OPTION

UNDERGRADUATE

GRADUATE

Arizona State University.	Arizona State University The Hartford Graduate Center
Northwestern University	
Louisiana State University	
University of Maine	
University of Maryland	
New Jersey Institute of Technology	
	State University of New York
Ohio State University	
Tennessee Technological University.	Tennessee Technological University
University of Texas at Austin	
Virginia Polytechnic Institute	

ELECTRICAL WITH NUCLEAR OPTION

Arizona State University	
University of California, Berkeley	
University of Maryland	
Worcester Polytechnic Institute	
Michigan Technical University	
University of Missouri, Columbia	
New Jersey Institute of Technology	
Clarkson College of Technology	
	Case Western Reserve University
Brigham Young University	
University of Utah	
Virginia Polytechnic Institute	

APPENDIX A-5 (Continued)
 NUCLEAR ENGINEERING CURRICULUM
 OR OPTIONS BY UNDERGRADUATE OR GRADUATE INSTITUTION
 FALL 1978

MECHANICAL WITH NUCLEAR OPTION

UNDERGRADUATE

GRADUATE

Arizona State University.	Arizona State University
University of California, Berkeley	Stanford University
Howard University	Colorado State University
University of Idaho	University of Idaho
University of Notre Dame	Purdue University
	University of Kentucky
University of Maryland	Harvard University
Worcester Polytechnic Institute	
Michigan Technical University	
University of Missouri, Columbia	
New Jersey Institute of Technology	
Clarkson College of Technology	
Rensselaer Polytechnic Institute	Rensselaer Polytechnic Institute
Ohio State University	
University of Pennsylvania.	University of Pennsylvania
University of Puerto Rico	University of Puerto Rico
South Dakota State University	
University of Texas, Austin	
Brigham Young University	
University of Utah	
Utah State University	Utah State University
Virginia Polytechnic Institute	

APPENDIX A-5 (Continued)
NUCLEAR ENGINEERING CURRICULUM
OR OPTIONS BY UNDERGRADUATE OR GRADUATE INSTITUTION
FALL 1978

AEROSPACE

UNDERGRADUATE

Virginia Polytechnic Institute

AGRICULTURAL ENGINEERING

University of Maryland

APPLIED PHYSICS WITH NUCLEAR OPTION

Purdue University

ASTRONOMICAL ENGINEERING

University of Maryland

CIVIL WITH NUCLEAR OPTION

University of California, Berkeley
Clarkson College of Technology
Virginia Polytechnic Institute

COMPUTER SCIENCE WITH NUCLEAR OPTION

New Jersey Institute of Technology

FIRE PROTECTION ENGINEERING

University of Maryland

APPENDIX A-5 (Continued)
 NUCLEAR ENGINEERING CURRICULUM
 OR OPTIONS BY UNDERGRADUATE OR GRADUATE INSTITUTION
 FALL 1978

GENERAL WITH NUCLEAR OPTION

UNDERGRADUATE

GRADUATE

Idaho State University

INDUSTRIAL WITH NUCLEAR OPTION

University of California, Berkeley
 Virginia Polytechnic Institute

INTERDISCIPLINARY ENGINEERING

Purdue University

MATERIALS SCIENCE

University of California, Berkeley

METALLURGICAL WITH NUCLEAR OPTION

University of Idaho
 Michigan Technical University Michigan Technical University
 Virginia Polytechnic Institute

NUCLEAR ENGINEERING TECHNOLOGY

Oregon State University

PHYSICAL SCIENCE

University of Maryland

PHYSICS WITH NUCLEAR OPTION

University of Maine

APPENDIX A-6

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY STATE AND REGION

FT = FULL TIME

PT = PART TIME

REGION - STATE	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
REGION I - NEW ENGLAND													
CONNECTICUT							3					1	
MAINE	2		2		3						5		
MASSACHUSETTS	42		48		8		124	4	54		35	68	20
RHODE ISLAND					1		1						
TOTAL	44	0	50	0	12	0	124	8	54	0	40	69	20
REGION II - MIDDLE ATLANTIC													
NEW JERSEY	4	2	11								13		
NEW YORK	67		81		33		62	47	46	17	100	63	9
PENNSYLVANIA	41		54			1	37	35	12	5	36	18	2
TOTAL	112	2	146	0	33	1	99	82	58	22	149	81	11
REGION III - EAST NORTH-CENTRAL													
ILLINOIS	33		14				29	8	65	7	12	21	4
INDIANA	37		41		25		19		14	1	16	11	3
MICHIGAN	69		67				59	6	24		15	1	
OHIO	45		36		16		55	8	16	13	27	29	6
WISCONSIN	32		36				31	1	34		30	22	8
TOTAL	216	0	194	0	41	0	193	23	153	21	100	84	21

APPENDIX A-6 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY STATE AND REGION

 FT = FULL TIME
 PT = PART TIME

REGION - STATE	ENROLLMENT - FALL 1978										DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE				JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE			BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT			
REGION IV - WEST NORTH-CENTRAL													
IOWA	12		7				13	1	12	1		5	4
KANSAS	17		37				13	2	10	3	17	4	2
MISSOURI	48		57				22	16	24	3	6	14	8
TOTAL	77	0	101	0	0	0	48	19	46	7	23	23	14
REGION V - SOUTH ATLANTIC													
DISTRICT OF COLUMBIA			2				11					2	
FLORIDA	29		19		24		21	8	7	1	37	13	3
GEORGIA	29	7	33				23	2	13	2	28	17	5
MARYLAND	1		15		44	2	5	4	9	7	13	5	3
NORTH CAROLINA	18		21				25	4	19	1	22	8	2
PUERTO RICO					7			1					
VIRGINIA	34		48		4		38	8	14	3	50	39	4
TOTAL	111	7	138	0	79	2	123	27	62	14	150	84	17
REGION VI - EAST SOUTH-CENTRAL													
ALABAMA							5					1	
KENTUCKY							2	2				2	1
TENNESSEE	29		28				31	6	12		27	10	1
TOTAL	29	0	28	0	0	0	38	8	12	0	27	13	2

APPENDIX A-6 (CONTINUED)

NUCLEAR ENGINEERING

ENROLLMENTS AND DEGREES IN SUBFIELDS BY STATE AND REGION

 FT = FULL TIME
 PT = PART TIME

REGION - STATE	ENROLLMENT - FALL 1978								DEGREES GRANTED		
	UNDERGRADUATE						GRADUATE		JULY 1977 - JUNE 1978		
	3RD YEAR	4TH YEAR	5TH YEAR				MASTER	DOCTORATE	BACH	MASTER	PHD
	FT	PT	FT	PT	FT	PT	FT	PT			
REGION VII - WEST SOUTH-CENTRAL											
LOUISIANA			2				4	6	2	5	
OKLAHOMA	16	2	7				6	1	11	1	
TEXAS	79		82		6		29	4	79	23	5
TOTAL	95	2	91	0	6	0	39	11	92	29	5
REGION VIII - MOUNTAIN											
ARIZONA	81		77				27	2	74	6	2
COLORADO								2			
IDAHO	25	2	38	7			5	41	18	8	
NEW MEXICO							13	7		6	
UTAH	2		29				13	1	23	6	2
TOTAL	108	2	144	7	0	0	58	53	115	26	4
REGION IX - PACIFIC											
CALIFORNIA	38		42				52	2	18	32	6
OREGON	36		49		2		19		26	2	
WASHINGTON							19	13		14	
TOTAL	74	0	91	0	2	0	90	15	44	48	6

APPENDIX B-1

ADDRESSES OF INSTITUTIONS IN SURVEY UNIVERSE
WITH ACTIVE PROGRAMS
NUCLEAR ENGINEERING

Tuskegee Institute
School of Engineering
Tuskegee, Alabama 36088

Arizona State University
Department of Engineering
Tempe, Arizona 85281

University of Arizona
Department of Nuclear Engineering
Tucson, Arizona 85721

Stanford University
Department of Mechanical Engineering
Stanford, California 94305

University of California, Berkeley
Department of Nuclear Engineering
Berkeley, California 94720

University of California, Los Angeles
Department of Chemical, Nuclear,
and Thermal Engineering
Los Angeles, California 90024

University of California, Santa Barbara
Department of Chemical & Nuclear Engineering
Santa Barbara, California 93106

Colorado State University
Department of Mechanical Engineering
Fort Collins, Colorado 80523

Howard University
Department of Mechanical Engineering
Washington, D. C. 20059

University of Florida
Department of Nuclear Engineering Sciences
Gainesville, Florida 32611

Georgia Institute of Technology
School of Nuclear Engineering
Atlanta, Georgia 30332

Idaho State University
School of Engineering
Pocatello, Idaho 83209

University of Idaho
Mechanical Engineering Department
Moscow, Idaho 83843

Northwestern University
Engineering Sciences & Applied Math Department
Evanston, Illinois 60201

University of Illinois
Department of Nuclear Engineering
Urbana, Illinois 61801

Purdue University
Department of Nuclear Engineering
West Lafayette, Indiana 47906

University of Notre Dame
Department of Aerospace & Mechanical Engineering
Notre Dame, Indiana 46556

APPENDIX B-1 (Continued)

ADDRESSES OF INSTITUTIONS IN SURVEY UNIVERSE WITH ACTIVE PROGRAMS

NUCLEAR ENGINEERING

Iowa State University
Department of Nuclear Engineering
Ames, Iowa 50011

Kansas State University
Department of Nuclear Engineering
Manhattan, Kansas 66506

University of Kentucky
Department of Mechanical Engineering
Lexington, Kentucky 40506

Louisiana State University
Nuclear Science Center
Baton Rouge, Louisiana 70803

University of Maine
Department of Physics
Orono, Maine 04469

University of Maryland
Department of Chemical & Nuclear Engineering
College Park, Maryland 20742

Massachusetts Institute of Technology
Department of Nuclear Engineering
Cambridge, Massachusetts 02139

University of Lowell
Department of Nuclear Engineering
Lowell, Massachusetts 01854

Worcester Polytechnic Institute
Department of Mechanical Engineering
Worcester, Massachusetts 01609

Michigan Technical University
Department of Physics
Houghton, Michigan 49331

University of Michigan
Department of Nuclear Engineering
Ann Arbor, Michigan 48109

Mississippi State University
Department of Nuclear Engineering
Mississippi State, Mississippi 39762

University of Missouri, Columbia
Department of Nuclear Engineering
Columbia, Missouri 65211

University of Missouri, Rolla
Department of Nuclear Engineering
Rolla, Missouri 65401

New Jersey Institute of Technology
Department of Physics & Engineering Science
Newark, New Jersey 07102

University of New Mexico
Department of Chemical & Nuclear Engineering
Albuquerque, New Mexico 87131

Clarkson College of Technology
Engineering Department
Potsdam, New York 13676

Columbia University
Department of Applied Physics &
Nuclear Engineering
New York, New York 10027

APPENDIX B-1 (Continued)

ADDRESSES OF INSTITUTIONS IN SURVEY UNIVERSE
WITH ACTIVE PROGRAMS
NUCLEAR ENGINEERING

Cornell University
Department of Nuclear Science &
Engineering Programs
Ithaca, New York 14853

Polytechnic Institute of New York
Department of Nuclear Engineering
Brooklyn, New York 11201

Rensselaer Polytechnic Institute
Department of Nuclear Engineering
Troy, New York 12181

State University of New York, Buffalo
Department of Engineering Science
Buffalo, New York 14214

State University of New York, Maritime College
Science Department
New York, New York 10465

North Carolina State University
Department of Nuclear Engineering
Raleigh, North Carolina 27650

Air Force Institute of Technology
Physics Department
Dayton, Ohio 45433

Case Western Reserve University
Department of Electrical Engineering
& Applied Physics
Cleveland, Ohio 44106

Ohio State University
Department of Nuclear Engineering
Columbus, Ohio 43210

University of Cincinnati
Department of Chemical & Nuclear Engineering
Cincinnati, Ohio 45221

University of Oklahoma
Department of Nuclear Engineering
Norman, Oklahoma 73019

Oregon State University
Department of Nuclear Engineering
Corvallis, Oregon 97331

Carnegie-Mellon University
Department of Nuclear Science & Engineering
Pittsburgh, Pennsylvania 15213

Pennsylvania State University
Department of Nuclear Engineering
University Park, Pennsylvania 16802

University of Pennsylvania
Mechanical Engineering Department
Philadelphia, Pennsylvania 19104

University of Puerto Rico
Department of Mechanical & Nuclear Engineering
Mayaguez, Puerto Rico 00708

Tennessee Technological University
Department of Engineering Science & Mechanics
Cookeville, Tennessee 38501

APPENDIX B-1 (Continued)

ADDRESSES OF INSTITUTIONS IN SURVEY UNIVERSE
WITH ACTIVE PROGRAMS
NUCLEAR ENGINEERING

University of Tennessee
Department of Nuclear Engineering
Knoxville, Tennessee 37916

Texas A&M University
Department of Nuclear Engineering
College Station, Texas 77843

University of Texas, Austin
Department of Mechanical Engineering
Austin, Texas 78712

Brigham Young University
Department of Chemical Engineering
Provo, Utah 84602

University of Utah
Department of Mechanical Engineering
Salt Lake City, Utah 84112

Utah State University
Department of Mechanical Engineering
Logan, Utah 84321

University of Virginia
Department of Nuclear Engineering
& Engineering Physics
Charlottesville, Virginia 22901

Virginia Polytechnic Institute
Nuclear Engineering Department
Blacksburg, Virginia 24061

University of Washington
Department of Nuclear Engineering
Seattle, Washington 98195

University of Wisconsin
Department of Nuclear Engineering
Madison, Wisconsin 53706

APPENDIX B-2

ADDRESSES OF INSTITUTIONS IN SURVEY UNIVERSE
WITH INACTIVE OR DISCONTINUED PROGRAMS
NUCLEAR ENGINEERING

INACTIVE

California State University
School of Engineering
Northridge, California 91330

San Jose State University
Department of Mechanical Engineering
San Jose, California 95192

Catholic University of America
Department of Mechanical Engineering
Washington, D.C. 20064

Louisiana Technical University
Division of Engineering Research
Ruston, Louisiana 71272

University of Rhode Island
Department of Chemical Engineering
Kingston, Rhode Island 02881

South Dakota State University
Department of Mechanical Engineering
Brookings, South Dakota 57007

DISCONTINUED

Hartford Graduate Center
Registrar
Hartford, Connecticut 06120

Memphis State University
Department of Mechanical Engineering
Memphis, Tennessee 38152

APPENDIX C - SURVEY MATERIALS

Department of Energy
Washington, D.C. 20545

September 22, 1978

Dear Professor:

You were recently sent a copy of Nuclear Engineering Enrollments and Degrees, 1977 (DOE/IR-0011), which reported the results of the seventh survey of colleges offering degrees in this field so important to the safe utilization of nuclear power. We are enclosing the forms for recording current (1978) data of the same nature.

Because of growing public awareness regarding the development of nuclear energy, there has been increased interest in reliable data on the supply of well-trained persons in nuclear engineering. Information of this type is of particular interest to policymakers, planners, employers, educators, and students, many of whom have used the results of past surveys.

The survey is being conducted by the Manpower Research Programs unit of Oak Ridge Associated Universities under the sponsorship of the Department of Energy (DOE).

In completing the forms, please include all persons in degree programs who prepare the students to work as nuclear engineers even if the title of the degrees may differ (e.g., mechanical engineering with a nuclear option). A duplicate set of forms for your records and a self-addressed, postage-paid envelope are included for your convenience. We would greatly appreciate receiving your completed questionnaire by October 30, 1978. Please enclose with the questionnaire the latest literature describing your program so that DOE staff can keep current on your program content.

If you have any questions about the questionnaire, please call collect to Dr. Larry Blair, Oak Ridge Associated Universities, (615) 483-8411, extension 371.

APPENDIX C - SURVEY MATERIALS (Continued)

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We appreciate your continuing cooperation in this project and would be pleased to receive any comments you have on the survey content or form. Thank you again for your time and interest.

Sincerely,

Norman Seltzer
Deputy Director for Manpower Assessment
Division of Labor Affairs and Manpower
Assessment

APPENDIX C - SURVEY MATERIALS (Continued)

DOE Form IR-616		U.S. Department of Energy										FORM APPROVED OMB NO. 38-R0176	
IMPORTANT: Please see instructions on reverse side before completing this form.													
NUCLEAR ENGINEERING ENROLLMENT AND DEGREE SURVEY: 1978													
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;">Name of Institution</div> <div style="width: 10%;">1</div> <div style="width: 20%;">6 7 City</div> <div style="width: 10%;">28 State</div> <div style="width: 10%;">31 32 Zip Code</div> <div style="width: 10%;">36</div> </div>													
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;">37 Department(s) Reporting</div> <div style="width: 10%;">61 62</div> <div style="width: 10%;">67</div> <div style="width: 10%;">79 80</div> <div style="width: 10%;">1</div> <div style="width: 10%;">6 7</div> <div style="width: 20%;">Name of Official Supplying Date</div> <div style="width: 10%;">36</div> </div>													
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;">37 Title of Official Supplying Date</div> <div style="width: 10%;">61 62 Code</div> <div style="width: 10%;">69 70</div> <div style="width: 10%;">Telephone Number</div> <div style="width: 10%;">76 79</div> <div style="width: 10%;">80</div> </div>													
A2													

SCHOOL NUMBER (Leave blank)	NUCLEAR ENGINEERING CURRICULUM OR OPTION (See Instruction a.)	CODE	ENROLLMENTS FALL 1978																DEGREES GRANTED July 1977-June 1978			CARD									
			UNDERGRADUATES						MASTER CANDIDATES		DOCTORATE CANDIDATES		Bachelor	Master	Doctorate																
			3rd Year		4th Year		5th Year		Full-Time	Part-Time	Full-Time	Part-Time																			
			Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time																							
1	6	7	8	9	11	12	14	15	17	18	20	21	23	24	26	27	29	30	32	33	35	36	38	39	41	42	44	45	47	79	80
	Nuclear	10																													11
	Chemical, with nuclear option	20																													11
	Engineering Science, with nuclear option	90																													11
	Electrical, with nuclear option	40																													11
	Mechanical, with nuclear option	60																													11
	Other (Specify, e.g., Industrial, Civil)	70																													11
TOTAL																															
• Please break out the following from the totals reported above.			CODE	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	B	M	D											
	Foreign Nationals	Male	80																												11
		Female	8A																												
	White, U.S. Citizens	Male	81																												11
		Female	8B																												
	Blacks, U.S. Citizens	Male	82																												11
		Female	8C																												
	Spanish-surnamed, U.S. Citizens	Male	83																												11
		Female	8D																												
	Asian Americans, U.S. Citizens	Male	84																												11
		Female	8E																												
	American Indians, U.S. Citizens	Male	85																												11
		Female	8F																												

Data supplied above may be published in listings by individual institutions.

Remarks:

Authorized Signature _____

Date _____

APPENDIX C - SURVEY MATERIALS (Continued)

U.S. Department of Energy

IR/EBLA/LAMA
Washington, D.C. 20545

Nuclear Engineering Enrollment and Degree Survey

INSTRUCTIONS FOR COMPLETING DOE FORM IR-616

This survey is conducted by the U.S. Department of Energy as part of a continuing effort to assure itself and its contractors a supply of well prepared experts in the nuclear field. With this questionnaire we hope to determine, by degree level, the yearly supply and anticipated supply of those trained in nuclear engineering or in another engineering discipline with a nuclear option, *except* in the areas of Radiation Protection (see Instruction a, below).

PLEASE READ THE FOLLOWING INSTRUCTIONS BEFORE FILLING OUT THE QUESTIONNAIRE

- Instr. a. **Curriculum.** Using a separate line for each major program, report only those in engineering curricula which are nuclear-oriented, *excluding those which have health physics, radiation safety* or similar option. The latter group should be reported on DOE Form IR-617 which is available from the ORAU Manpower Research Program Unit (615) 483-8411, ext. 371, and should be submitted.
Combine very small specialties with related major areas.
- Instr. b. Report only students who are enrolled in a degree program. Include co-op students* with full-time enrollments. If exact figures are not available, please give best estimate and indicate by an "E" after estimated number.
- Instr. c. **Fifth-Year Students.** Report candidates for five-year bachelor's degree, whether regular or co-op program. If the curriculum is an integrated one leading to a five-year master's degree, report fifth year students under master's degree column.
- Instr. d. **Other Pre-Doctoral Degree.** Professional degree programs beyond the bachelor's but pre-doctoral in level are to be included as master's degree programs to simplify this report.
- Instr. e. **Doctoral Programs.** Report only enrollments specifically leading to a doctorate. If ultimate graduate degree is uncertain, report as master candidates.
- Instr. f. **Women, Minorities, Foreign Students.** Requests for information about women and minorities are numerous. The number of foreign nationals is important to predicting manpower supplies. Therefore, please provide as accurate a breakout as possible. Blanks will be treated as zeros.

*For purposes of this survey, a co-op student is defined as one who alternates sessions of schooling with sessions of employment in a position related to his academic specialty.

APPENDIX C - SURVEY MATERIALS (Continued)

FORM APPROVED
OMB NO. 38-R0176

DOE Form IR-616-A

U.S. Department of Energy
NUCLEAR ENGINEERING ENROLLMENT AND DEGREE SURVEY-SUPPLEMENT

Reporting Institution _____

Date _____

Please indicate placement or plans of degree recipients for July 1977-June 1978 reported on DOE Form IR-616.

NOTE: "Graduates Returning to previously held jobs" and "Foreign Nationals" should also be included in "Total Graduates."

PLACEMENT OR PLANS AFTER GRADUATION	BACHELORS			MASTERS			DOCTORATES		
	Total Graduates	Graduates Returning to Previously Held Jobs	Foreign Nationals	Total Graduates	Graduates Returning to Previously Held Jobs	Foreign Nationals	Total Graduates	Graduates Returning to Previously Held Jobs	Foreign Nationals
Further study									
U.S. Academic employment (show students employed part time under further study)									
Federal Government employment									
Government-owned, Contrac- tor-operated installations employment (GOCO's)									
State and Local Government employment									
Industrial employment within U.S.									
Employment with foreign employer									
U.S. Military service									
Other (specify)									
Still seeking employment									
Unknown									