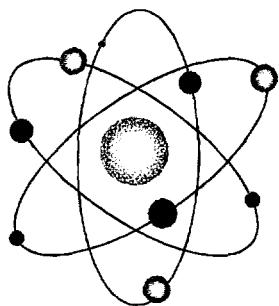


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## IAEA FELLOWSHIP PROGRAM

1996 REPORT ON

UNITED STATES PARTICIPANTS

National Research Council  
National Academy of Sciences  
2101 Constitution Ave., NW  
Washington, DC 20418

MASTER *just*

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## EXECUTIVE SUMMARY

During the period of performance, January 1, 1996 through December 31, 1996, the National Research Council oversaw 1465 man-months of technical training. During 1996, 223 Fellows from 49 countries were on tenure in U.S. institutions for training in the peaceful applications of nuclear energy. Of these, 76 were supported by U.S. funds (Type II) and 147 were supported by IAEA or UNDP program funds (105 Type I and 42 Type III Scientific Visitors). The Fellows who received training during the year attended 44 universities, 45 Federal and State Facilities, 22 medical institutions, 22 other institutions, 4 utilities, and 1 mining company. Twenty four fellows also attended English language school in this country prior to their technical training program.

The proportion of women participants trained as regular Fellows (Type I and Type II) in the U.S. in 1996 was 19%, a decrease of 2% compared to the previous year. Of the Scientific Visitors, 29% were women, up from recent years.

The leading fields of study in which the regular Fellows (Type I and Type II) were trained during 1996 were *Nuclear Safety* with 26% and *Agricultural Applications* with 23% of the Fellows. These were followed by programs in *Nuclear Engineering and Technology* with 14%, *Medical Applications* with 12%, *Biological Applications* with 11% and *Nuclear Physics* with 6%. The remaining 9% were divided between *Nuclear Chemistry*, *Biological Applications*, *Industrial and Hydrological Applications*, and *General Atomic Energy Development*.

*Agricultural Applications* was also the major field of study undertaken by the Scientific Visitors and made up 43% of those awards, essentially unchanged from the year before. *Medical Applications* made up 21% of those awards, and the number of SV's in each of the remaining fields was considerably smaller. There was also a Group Scientific Visit dealing with irradiation and other food quarantine techniques.

There have been many changes in participation among the 86 countries that have sent Fellows to the U.S. during the 39-year history of the program. Historically, the number of participants from countries in the Asia and Pacific region equaled those of all other regions, making up almost 50% of all Fellows trained. In 1996, participants from countries in East Asia and Pacific predominate at 51%, with proportion of participants from Europe (mainly Eastern Europe) and West Asia at 23%, reflecting the efforts to provide training in safety and analysis procedure for nuclear power plant operation in Former Soviet-bloc countries.

Thos. C. Rozzell, Sc.D.  
Director, Fellowship Program  
Office of Scientific and Engineering Personnel

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IAEA Fellowship Program

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**FELLOWSHIP TRAINING AND RESEARCH PROGRAM IN NUCLEAR SCIENCE  
INTERNATIONAL ATOMIC ENERGY AGENCY, VIENNA, AUSTRIA**

**PARTICIPANTS IN THE UNITED STATES - 1996 ANNUAL REPORT**

**General Information**

The International Atomic Energy Agency (IAEA) Fellowship Program began in April 1958 as a part of the Agency's Technical Cooperation (TC) Program. Through the TC Program, the IAEA provides technical assistance to meet the needs of recipient countries and to bring about a substantial transfer of technology. This is done by providing experts, equipment, fellowships, and training courses. This report addresses the U.S. component of the fellowship program. These fellowships provide opportunities for research and training of scientists, engineers and physicians from developing countries in the peaceful application of nuclear energy. The fellowships are awarded to persons who are, or soon will be, trusted with responsibilities that are important to the development of their countries.

Resources for the program are made available through contributions of the Member States to the Agency's General Fund and from the United Nations Development Program (UNDP) Fund. Certain Member States, the United States being one, also provide additional funds for Fellowships at their own institutions.

The Fellowships are awarded by the Agency from applications submitted to it by Member States. Candidates are selected on the basis of educational and professional qualifications, their foreign language proficiency, the needs of the nation concerned, the number of fellowships previously awarded to nationals of that State, and on evidence and assurance that upon their return home, the candidate's training will be utilized effectively for a period of not less than two years.

**Programs**

**Regular Fellowship Program**

Fellowship awards are classified into two groups, those financed by the IAEA General Fund or the UNDP Fund (Type I Fellowships and Scientific Visits), and those offered by Member States (Type II Fellowships). In placing individuals, preference is given to applicants from countries that are signatories to the Treaty on Non-Proliferation of Nuclear Weapons or to the Treaty for the Prohibition of Nuclear Weapons in Latin America.

The fellowships are normally awarded for periods of one month to one year. Extensions may be granted under certain circumstances. Generally, twenty-four months is the maximum time a Fellow may be in the program, although short extensions beyond this time

have been granted. All extensions require the approval of the International Atomic Energy Agency and the Fellow's government as well as that of the National Research Council.

During 1996, 105 Type I and 76 Type II Fellows either completed their training or were on tenure.

### Scientific Visitor Program

In addition to the Type I and Type II fellowships, each year a number of Scientific Visitors (Type III Fellows) visit the U.S. for short periods (less than a month). Type III awards are granted to more experienced scientists and engineers to enable them to:

- 1) study new developments in nuclear science and technology and review current research;
- 2) observe organizational aspects and functioning of special services, training programs, and schools; and
- 3) confer with experts working in their particular field of interest.

The awards are intended to enhance the visitor's professional qualifications and thereby contribute more effectively to their country's scientific and technological progress.

Scientific Visitors often visit several institutions while in the U.S. and many also attend technical meetings of professional societies. During 1996, 42 persons came to the United States under this part of the program and visited 41 institutions during their stays.

### **Role of the National Research Council**

The IAEA Fellowship Program in the United States is administered by the National Research Council (NRC)\* through the Office of Scientific and Engineering Personnel (OSEP). In 1996, the staff consisted of Dr. Tom Rozzell, Director of the Fellowship Office, Ms. Eliza Wojtaszek, Technical Program Officer, Ms. Alicia Kraft, Program Supervisor, Ms. Mary Ann Pryor and Ms. Bina Russell, Fellowship Program Coordinators, and Ms. Barbara Kneebone and Ms. Amy Dowd, Program Assistants. We operate under a grant from the U.S. Department of Energy with funds supplied by the U.S. Department of State (DOS).

A committee chaired by the Bureau of International Organization Affairs (IO) in DOS and comprising representatives of other offices in DOS and members from the Department of

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\* The National Research Council is the operating entity of the National Academies of Science and Engineering and the Institute of Medicine.

Energy, the Nuclear Regulatory Commission, and the Arms Control and Disarmament Agency reviews the applications of the candidates whom the IAEA requested be trained in the U.S. Those applications which are approved by IO for placement are forwarded to the NRC which then handles all administrative aspects of the training as indicated below.

#### Administrative Services

The administration of all fellowships includes:

- setting up a file and a computer record for each candidate.
- evaluating the English language capability of each candidate and recommending one or more months of intensive English schooling in the U.S. when necessary.
- arranging a training program with a suitable advisor and institution appropriate for the candidate's educational background and program objectives.
- recommending these assignments to the IAEA for acceptance.
- providing the candidate with a completed Certification of Eligibility for Exchange-Visitor Status (USIA Form IAP-66) so that s/he can obtain a visa.
- informing the advisor of arrival details and any changes to the program.
- receiving, tracking, and reviewing reports of Fellows' activities and transmitting copies to the Agency.
- assisting Fellows and advisors with mid-program travel, extension requests, health insurance questions and any other problems or questions that arise.
- maintaining records and reports on administered fellowships and scientific visits.
- monthly status reports to IAEA.

For Type II Fellows, the administration also includes:

- arranging and paying for travel to and from the training site.
- paying, during the period of the tenure, the:
  - maintenance allowance

- book allowance
- training and tuition expenses to the host institution
- health and accident insurance
- worker's compensation insurance
- excess baggage/shipping allowance.

--assisting with financial and other arrangements in connection with mid-program travel to scientific meetings or field trips in the U.S.

The maintenance allowance ranges from \$1,100 to \$1,800 per month depending on the cost of living in the Fellow's geographical training location. The book allowance is \$70 per month, and the excess baggage/shipping allowance is \$100. No provision is made for dependents in the program.

As can be seen, the National Research Council performs most of the same administrative services for Type I Fellows and Scientific Visitors as for the Type II Fellows. In addition, for the convenience of the IAEA and to expedite certain functions, the NRC pays certain expenses for Type I Fellows and SV's and is reimbursed by the IAEA.

Table A-1 (see Appendix) shows how many Fellows and applications the NRC managed in 1996.

### **Demographics and Statistics**

#### **Man-Months**

Table 1 shows how many man-months of training we managed in 1996 and in 1995. As can be seen, there were increases in each of the categories. In 1996, we doubled the number of man-months of training for Type I and Type II Fellows.

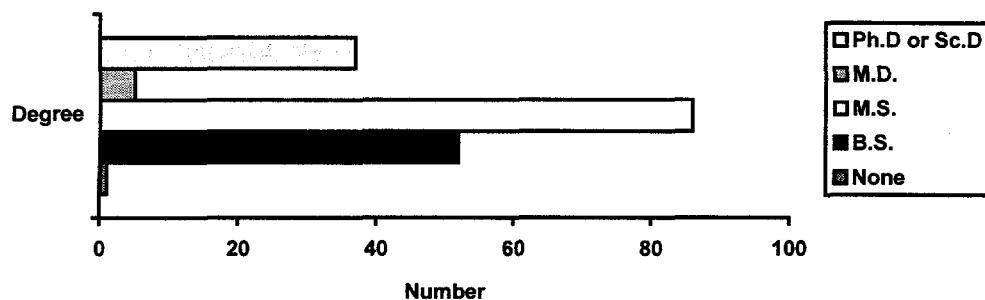
**Table 1. Man-Months of Training**

	Type I	Sci Vstrs	Type II	Total
1996	782	25	658	1465
1995	387	22	334	743

### Academic Background

The nominees for IAEA Fellowships have an academic background of at least a bachelor's degree or its equivalent in training and experience. The distribution of educational levels of Type I & II Fellows is shown in Figure 1 and in Table A-2. This data shows that 71% of them had graduate degrees (M.S., Ph.D., M.D. or D.V.M.). 83% of the Type III Fellows held graduate degrees.

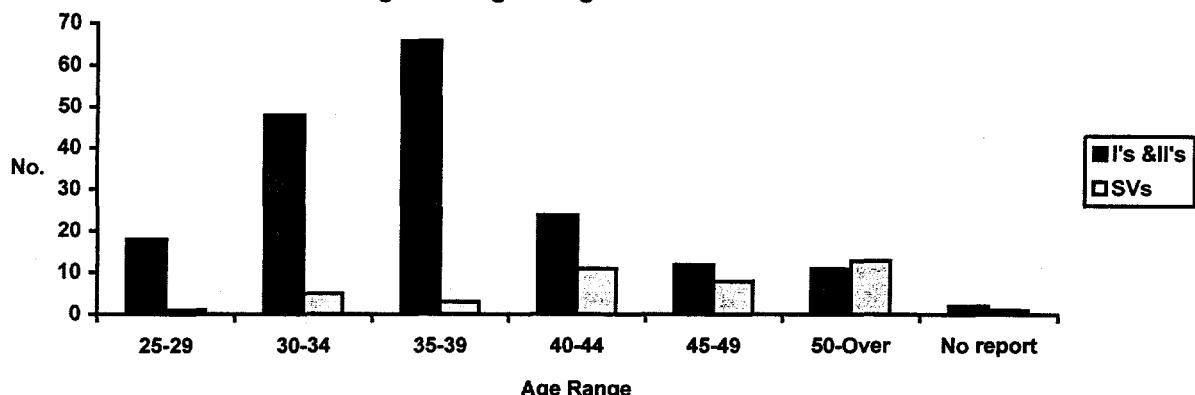
**Figure 1. Education Level of Type I and II Fellows**



### Age

The distribution of ages among the Fellows who were active during 1996 is shown in Figure 2 and also in Table A-2. 76% of the Type I and II Fellows were between the ages of 30 and 44 years. On the other hand, only 45% of the Type III Scientific Visitors were in that age range, and 31% were over age 50. This is consistent with the fact that the scientific visits are designed for the more senior people in their field.

**Figure 2. Age Ranges of Fellows**



#### Gender

The distribution by gender is also shown in Table A-2. 19% of the regular Fellows were female in 1996, a decrease of 2% compared to 1995.

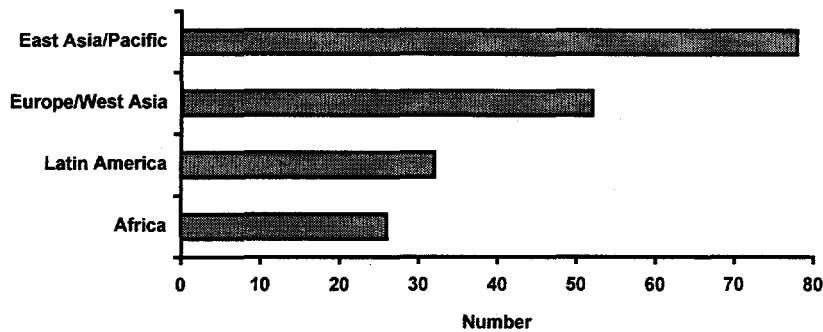
#### Home Countries

Over the years there have been participants in the program from approximately 88 countries. The countries sending Fellows to the U.S. have changed through the years as their need for and ability to utilize nuclear technology changed. A number of countries that required trained manpower in the early years of the program are now assisting with the training of Fellows from less developed countries.

The home countries of the Fellows and SV's who were here during 1996 is shown in Table A-3. We hosted Fellows and SV's from 49 countries. Of those, 15 countries sent only 1 and 24 sent between 2 and 7 Fellows. Republic of Korea sent 27 fellows, Bangladesh sent 19 fellows, Indonesia and China sent each 15 fellows, Brazil and Thailand sent 12 fellows each, Egypt sent 11, and Hungary sent 10. These eight countries thus accounted for 54 percent of the all Fellows and SV's trained in the U.S.

The geographical distribution is shown in Figure 3. Participants from countries in the East Asia and Pacific regions once again predominate, with 51% of the total. The proportion of participants from Europe (mainly Eastern Europe) and West Asia is at 23% with special efforts being mounted to provide training in safety and analysis procedures for nuclear power plant operation in Former Soviet Union countries.

Figure 3. Geographical Distribution of Fellows



#### Fields of Study

The principal fields in which the regular Fellows were trained were in *Agricultural Applications* (23%) and *Nuclear Safety* (26%). These were followed by *Nuclear Engineering and Technology* (14%), *Medical Applications* (12%), and *Biological Applications* (11%). The percentages in the five remaining categories were considerably smaller. The numbers for both *Nuclear Safety* and *Nuclear Engineering and Technology* reflect to some degree the emphasis on Eastern European power reactor safety.

*Agricultural Applications* was also the dominant major field of training undertaken by the Scientific Visitors and made up 43% of those awards.

#### Institutions Providing Training

Since the inception of the IAEA Fellowship Program in 1958, over 500 U.S. institutions and thousands of individuals in federal, state and private organizations have lent their support to the program and provided the essential scientific, engineering, and technical expertise required to satisfy the diverse needs of the Fellows and of the countries they represented.

Historically, training provided by universities and federal and state government facilities was approximately equal and jointly accounted for the large majority of all training opportunities. Medical schools typically trained only about one-seventh the number of Fellows

accommodated at either of the former institutions. The balance of the training was provided by other institutions: private U.S. corporations and state institutions, nuclear power utilities, and mining exploration and processing facilities. About 13% of the Fellows also attended English language schools for a month or more of intensive English training in addition to their technical programs.

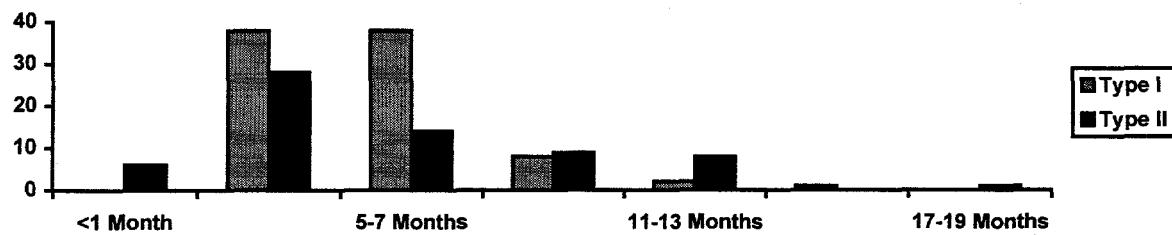
The list and types of institutions providing training for Fellows and SV's during 1996 are shown in Table A-5. Universities and federal and state government facilities remained the principal institutions providing training. Forty two universities and thirty three government facilities trained regular Fellows. Twenty medical schools or hospitals, fifteen other commercial or non-profit organizations, and two utilities also hosted Fellows. The distribution for the SV's was similar. Twenty four Fellows attended English language school before beginning their technical training.

#### Length of Tenure

The length of the awards received by regular Fellows varied over a wide range depending on the type of training required and the prior knowledge and experience of the candidates. They last from one month to one year, with extensions possible. The average length has been running about six months.

The distribution is shown in Figure 4 and Table A-6. 77% of Type I and Type II fellowships last between 1-7 months. The lengths of the regular Fellow's fellowships increased in 1996 over the previous year. The percentage that were greater than eight months duration was 13% in 1993, 6% in 1994, and 8% in 1995, and 19% in 1996.

**Figure 4. Duration of Fellowships by Type**



A significant number of hosts again expressed concern over the length of time requested for scientific visits. The requested visit time was often one week, and most prospective hosts were reluctant to devote an entire week to a visitor. Many times the host indicated that s/he could show the visitor everything relevant that was being done at the facility in one or two days. We were often obliged to arrange shorter term visits to more sites, something that took an inordinate amount of time to arrange. We often requested that the visitor be permitted access to the library for a day or two. This latter strategy actually proved to be a good one in most cases as the visitor could have access to journals that are often not available in his or her home country. Free use of the photocopying machine was granted in all cases.

## **Appendix Tables**

**Table A-1. Number of Fellows by Status and Type**

	Type I	Sci Vstr	Type II	Total
<b>1. Completed Tenure During 1996</b>	<b>87</b>	<b>42</b>	<b>66</b>	<b>195</b>
<b>2. On Tenure - December 31, 1996</b>	<b>18</b>	<b>0</b>	<b>10</b>	<b>28</b>
<b>Being Processed - December 31, 1996</b>	<b>57</b>	<b>19</b>	<b>34</b>	<b>110</b>
<b>TOTAL</b>	<b>162</b>	<b>61</b>	<b>110</b>	<b>333</b>

**Table A-2. Education, Age, and Gender Distribution of Fellows**

	Type I	Sci Vstr	Type II	Total
<b>Education</b>				
No degree	1	0	0	1
Baccalaureate	24	7	28	59
Master's	55	14	31	100
Doctorate	22	19	15	56
M.D.	3	2	2	7
<b>Age</b>				
25-29	11	1	7	19
30-34	24	5	24	53
35-39	41	3	25	69
40-44	11	11	13	35
45-49	7	8	5	20
50-Over	9	13	2	24
No Report	2	1	0	3
<b>Gender</b>				
Female	19	12	15	46
Male	86	30	61	177
<b>TOTAL</b>	<b>105</b>	<b>42</b>	<b>76</b>	<b>223</b>

Table A-3. Home Countries

Country	Type I	Sci Vstr	Type II	Total
Argentina	3	4	0	7
Bangladesh	11	2	6	19
Brazil	5	6	1	12
Bulgaria	1	0	6	7
Cameroun	0	1	0	1
Chile	1	1	0	2
Colombia	1	0	1	2
Croatia	2	0	0	2
Czech Republic	0	0	3	3
Egypt, Arab Rep. of	3	0	8	11
Ghana	3	1	0	4
Greece	0	0	2	2
Guatemala	0	0	2	2
Hungary	1	5	4	10
Indonesia	3	1	11	15
Israel	1	0	0	1
Jamaica	0	1	0	1
Jordan	2	0	0	2
Kazakhstan	0	2	0	2
Kenya	0	0	4	4
Korea	19	4	4	27
Macedonia	0	0	3	3
Malaysia	4	3	2	9
Mexico	0	1	0	1
Mongolia	0	0	1	1
Morocco	0	0	3	3
Pakistan	6	3	0	9
Peoples Rep. of China	12	2	1	15
Peru	2	0	0	2
Philippines	2	0	1	3
Poland	0	0	2	2
Portugal	0	2	0	2
Romania	1	0	1	2
Saudi Arabia	2	0	0	2
Sierra Leone	1	0	0	1
Slovak Republic	0	0	1	1
Slovenia	1	0	0	1
Sri Lanka	1	1	1	3
Syria	2	0	0	2
Tanzania	0	0	1	1
Thailand	7	1	4	12
Turkey	5	0	0	5
Ukraine	0	0	2	2
Uruguay	0	1	0	1
Uzbekistan	1	0	0	1
Venezuela	1	0	0	1
Vietnam	0	0	1	1
Zambia	0	0	1	1
<b>TOTAL</b>	<b>105</b>	<b>42</b>	<b>76</b>	<b>223</b>

**Table A-4. Fields of Study**

	Type I	Sci Vstrs	Type II	TOTAL
<b>0 - Gen'l Atomic Energy Development</b>	1	0	4	5
<b>1 - Nuclear Physics</b>	8	2	4	14
<b>2 - Nuclear Chemistry</b>	1	1	0	2
<b>3 - Prospecting, Mining, and Processing</b>	1	0	0	1
<b>4 - Nuclear Engineering and Technology</b>	17	5	8	30
<b>5 - Agricultural Applications</b>	25	18	16	59
<b>6 - Medical Applications</b>	14	4	8	26
<b>7 - Biological Applications</b>	11	2	9	22
<b>8 - Industrial and Hydrological Application</b>	2	3	5	10
<b>9 - Safety in Nuclear Energy</b>	25	7	22	54
<b>TOTAL</b>	<b>105</b>	<b>42</b>	<b>76</b>	<b>223</b>

**Table A-5. Institutions Providing Training**

<b>A: Universities</b>	<b>Type I</b>	<b>SciVstr</b>	<b>Type II</b>	<b>TOTAL</b>
Auburn University, AL	1	0	0	1
University of California-Berkeley, CA	0	2	0	2
University of California-Davis, CA	2	1	1	4
Univ of California-Los Angeles, CA	1	0	0	1
Univ of California-Riverside, CA	0	1	0	1
Clemson University, SC	1	0	0	1
Columbia University, NY	0	0	1	1
Cornell University, NY	2	0	0	2
University of Denver, CO	1	0	0	1
University of Florida, FL	2	1	0	3
Georgia Southern University, GA	1	0	0	1
University of Georgia, GA	0	0	1	1
University of Hawaii at Manoa, HI	2	3	0	5
U of Illinois at Champaign/Urbana, IL	3	0	7	10
Iowa State University, IO	4	0	4	8
Johns Hopkins University, MD	1	0	0	1
Louisiana St. U and A&M College, LO	1	0	1	2
University of Maryland, MD	2	0	0	2
Massachusetts Inst of Technology, MA	3	0	2	5
U of Massachusetts-Amherst, MA	1	0	0	1
Medical College of Pennsylvania, PA	0	0	1	1
U of Med & Dent of NJ-Newark, NJ	0	0	1	1
University of Miami, FL	1	1	0	2
Michigan State University, MI	1	0	0	1
University of Michigan, MI	1	1	0	2
University of Nebraska-Lincoln, NA	0	0	1	1
New York Medical College, NY	0	0	1	1
North Carolina State U-Raleigh, NC	2	0	0	2
University of North Texas, TX	1	0	0	1
Ohio State University, OH	2	0	0	2
Oklahoma State University, OK	2	0	0	2
Oregon State University, OR	0	0	2	2
The Pennsylvania State University, PA	2	1	1	4
University of Pittsburgh, PA	1	0	0	1

**Table A-5. Institutions Providing Training (cont'd.)**

<b>A: Universities (cont'd.)</b>	<b>Type I</b>	<b>SciVstr</b>	<b>Type II</b>	<b>TOTAL</b>
Purdue University IN	1	0	0	1
State U. of New Jersey, Rutgers NL	1	0	0	1
State Univ. of New York-Buffalo NY	1	0	0	1
University of Tennessee-Knoxville TN	3	0	0	3
Texas A&M University TX	2	0	0	2
Tuskegee University AL	0	0	1	1
Utah State University UT	1	0	0	1
University of Virginia VA	1	0	0	1
University of Washington WA	1	0	0	1
Western Kentucky University KT	0	0	1	1
<b>TOTAL</b>	<b>52</b>	<b>11</b>	<b>26</b>	<b>89</b>

**Table A-5. Institutions Providing Training**

<b>B: Federal and State Government</b>	<b>Type I</b>	<b>SciVstr</b>	<b>Type II</b>	<b>TOTAL</b>
AFRI/Bethesda MD	0	0	1	1
DOE-INEL-Lockheed Martin Idaho ID	1	0	0	1
DOE-Argonne Nat Lab/Argon IL	1	1	4	6
DOE-Battelle Pac NW Lab/RchInd WA	0	1	1	2
DOE-Brookhaven Nat Lab/Uptn NY	4	3	4	11
DOE-Environmental Meas. Lab/NY NY	2	0	0	2
DOE-Lawrence Ber Lab/Berkly CA	0	1	0	1
DOE-Los Alamos Lab/Los Alamos NM	0	0	5	5
DOE-New Brunswick Lab/Argonne IL	0	0	1	1
DOE-Oak Ridge Assn Univs/TN	4	1	1	6
DOE-Oak Ridge National Lab/TN	3	3	4	10
DOE-Sandia Labs/Albuquerque NM	1	0	2	3
EPA/Montgomery AL	0	0	1	1
EPA Env Res Lab/Narragansett RI	0	0	1	1
FL Dept Hlth & Rehab Svcs/Tallahss FL	0	1	0	1
FL Dept of Agi/Gainesville FL	0	1	1	2
FL Dept Hlth & Rehab Svcs/Orlando FL	0	1	0	1
HHS-Nat Ins of Health/Bethesda MD	0	1	0	1
IL Dept Nucl Saf/Springld IL	0	1	0	1
Natl Inst Std&Tech/Gaithersburg MD	1	2	0	3
NOAA-Atms Turb&Diff/Oak-RG TN	0	0	1	1
Nuclear Reg Com/Arlington TX	1	0	0	1
Nuclear Reg Com/Washington DC	5	1	6	12
Penn Dept of Env Prot/Harrisbrg PA	1	0	0	1
USDA/Beaumont TX	1	0	0	1
USDA-APHIS/Bell CA	0	3	1	4
USDA/Beltsville MD	1	2	0	3
USDA/College-Station TX	0	2	0	2
USDA/East Lansing MI	1	0	0	1
USDA/Edinburg TX	0	4	1	5
USDA/Fort Collins CO	1	1	0	2
USDA-ARS/Hilo HI	0	1	0	1
USDA/Honolulu HI	1	0	0	1
USDA-ARS/Honolulu HI	0	1	0	1

**Table A-5. Institutions Providing Training (cont'd.)**

<b>B: Federal and State Government</b>	<b>Type I</b>	<b>SciVstr</b>	<b>Type II</b>	<b>TOTAL</b>
<b>USDA/Mississippi-State MS</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>USDA/Philadelphia PA</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>
<b>USDA-ARS/Phoenix AZ</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>USDA-APHIS/Phoenix AZ</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>3</b>
<b>USDA/Tifton GA</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>USDA-APHIS/Waimanalo HI</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>US Food and Drug Admin/Rockville MD</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>US Geological Survey/Menlo Park CA</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>3</b>
<b>US Geological Survey CA</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>US Geological Survey/San Diego CA</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>TOTAL</b>	<b>33</b>	<b>40</b>	<b>39</b>	<b>112</b>

**Table A-5. Institutions Providing Training (cont'd.)**

<b>C: Medical Schools and Facilities</b>	<b>Type I</b>	<b>SciVstr</b>	<b>Type II</b>	<b>TOTAL</b>
Colorado U. Denver Med Ctr CO	1	0	0	1
Geo Washngtn Sch Med/Washington DC	1	1	1	3
Harvard Medical School/Boston MA	1	0	0	1
Howard Univ. Sch Med/Washngtn DC	1	1	0	2
J. Hopkins Med Ins/ Baltimore MD	0	1	0	1
MD Anderson -U TX Cancer Ctr/Houston	0	1	0	1
Mallinckrodt Ins./St Louis MO	1	0	0	1
Maryland U. School Med/Bethesda MD	1	0	0	1
Mass Univ Med Sc/ Worcester MA	1	0	0	1
Mem Sloan-Kettering Cancer Ctr/NY NY	1	1	1	3
Mt. Sinai Med Ct of Grtr Miami/Miami B	1	0	0	1
NW Tissue Center/Seattle WA	3	1	0	4
Northwestrn U. Med Sch/ Chicago IL	1	0	0	1
Orthopedic Ctr of Dallas/Dallas TX	1	1	0	2
Pennsylvania U. Med & Hosp/Philadelphia	1	0	0	1
Sutter Roseville Med Ctr/Roseville CA	0	0	1	1
St Vincent Hosp & Med Ctr/New York N	1	0	1	2
SUNY Buffalo Helath Sci/Buffalo NY	1	0	0	1
Tulane U Sch Med/New Orleans, LA	1	0	0	1
Wayne St Sch Med/Detroit MI	0	0	1	1
Wisconsin U. Sch Med/Madison WI	0	1	0	1
<b>TOTAL</b>	<b>18</b>	<b>8</b>	<b>5</b>	<b>31</b>

**Table A-5. Institutions Providing Training (cont'd.)**

<b>D: Exploration, Mining and Processing</b>	<b>Type I</b>	<b>SciVstr</b>	<b>Type II</b>	<b>TOTAL</b>
<b>Power Resources Inc./Casper WY</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>TOTAL</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>E: Utilities</b>	<b>Type I</b>	<b>SciVstr</b>	<b>Type II</b>	<b>TOTAL</b>
<b>GE-Valasitos Facility/Pleasanton CA</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>NE Util Serv/Waterford CT</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>3</b>
<b>Waterford 3 Plant/Killona LA</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>Yankee Atomic Electric Company/Bolton MA</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>TOTAL</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>6</b>

**Table A-5. Institutions Providing Training (cont'd.)**

F: Other Commercial and Nonprofit	Type I	SciVstr	Type II	TOTAL
<b>ABB AMDATA INC/Windsor CT</b>	1	0	0	1
<b>Aerotest/ San Ramon CA</b>	0	1	0	1
<b>Amer. Assoc. of Tissue Banks/McLean VA</b>	0	1	0	1
<b>Carl W Hays Enterprises</b>	0	2	0	2
<b>Carrot Top Inc/Northbrook IL</b>	0	1	0	1
<b>Gamma Metrics/San Diego CA</b>	0	0	1	1
<b>General Atomics/San Diego CA</b>	0	0	2	2
<b>Goodwin Inst. of Cancer Res/Plantation FL</b>	1	0	0	1
<b>Harshaw Bicron Rad Measurment Products</b>	0	1	0	1
<b>Hellier Associates Inc/Niantic CT</b>	0	0	4	4
<b>Intr. Fert Dev Ctr/Musc-Shis AL</b>	1	0	0	1
<b>Johnson &amp; Johnson/North Brunswick NJ</b>	1	0	0	1
<b>LA Agric Exper Sta/Crowley LA</b>	0	0	1	1
<b>Ludlum Measurements Inc/Sweetwater TX</b>	0	0	1	1
<b>Plant Breeding Co/Pullman, WA</b>	1	0	0	1
<b>PLG Inc/Newport Beach CA</b>	1	0	0	1
<b>Raythem Corporation/Fuquay-Varina NC</b>	0	1	0	1
<b>Southwest Research Ins/San Antonio TX</b>	2	0	0	2
<b>SteriGenics International/Tustin CA</b>	0	1	0	1
<b>TLG Services, Inc./Bridgewater CT</b>	1	0	0	1
<b>Food Technology Inv/Mulberry FL</b>	0	0	1	1
<b>Westinghouse Electric Co/Pittsburg PA</b>	2	0	0	2
<b>TOTAL</b>	<b>11</b>	<b>8</b>	<b>10</b>	<b>29</b>

**Table A-5. Institutions Providing Training (cont'd.)**

<b>G: English Language Schools</b>	<b>Type I</b>	<b>SciVstr</b>	<b>Type II</b>	<b>TOTAL</b>
ELS/Atlanta GA	2	0	0	2
ELS/Boston MA	1	0	1	2
ELS/ New Haven CT	2	0	0	2
ELS/Chicago-River Forest IL	2	0	0	2
ELS/College.of Mt St Vincent, Riverdale NY	3	0	0	3
ELS/Houston TX	1	0	0	1
ELS/Melbourne FL	1	0	0	1
ELS/Wagner College, Staten Island NY	1	0	0	1
ELS/Oakland CA	0	0	1	1
ELS/Orange CA	1	0	0	1
ELS/Petersburg FL	0	0	1	1
ELS/Philadelphia PA	0	0	1	1
ELS/San-Francisco CA	1	0	0	1
ELS/Seattle WA	1	0	0	1
ELS/Washington DC	3	0	0	3
Language Institute for Eng/Garden City NY	0	0	1	1
<b>TOTAL</b>	<b>19</b>	<b>0</b>	<b>5</b>	<b>24</b>

**Table A-6. Length of Tenure of Completed Fellowships**

	Type I	Sci Vstr	Type II	Total
<b>Less Than 1 Month</b>	<b>0</b>	<b>42</b>	<b>6</b>	<b>48</b>
<b>1 - 4 Months</b>	<b>38</b>	<b>0</b>	<b>28</b>	<b>66</b>
<b>5 - 7 Months</b>	<b>38</b>	<b>0</b>	<b>14</b>	<b>52</b>
<b>8 - 10 Months</b>	<b>8</b>	<b>0</b>	<b>9</b>	<b>17</b>
<b>11 - 13 Months</b>	<b>2</b>	<b>0</b>	<b>8</b>	<b>10</b>
<b>14 - 16 Months</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>17 - 19 Months</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>TOTAL</b>	<b>87</b>	<b>42</b>	<b>66</b>	<b>195</b>