

**National Science Foundation–
National Institutes of Health
Survey of Postdoctorates
at Federally Funded
Research and Development Centers**

**Final Report
For Outside Distribution**

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Prepared for

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1. GENERAL NOTES

Federally Funded Research and Development Centers (FFRDCs) are organizations that perform research and development and “are exclusively or substantially financed by the federal government and are supported by the federal government either to meet a particular R&D objective or, in some instances, to provide major facilities at universities for research and associated training purposes. Each center is administered by an industrial firm, a university, or another nonprofit institution” (NSF/SRS 2006, p. 323). Many FFRDCs employ postdoctoral researchers (postdocs) as part of their efforts to assist government agencies with scientific research and analysis and to train the country’s researchers and scientists.

The 2009 FFRDC survey collected the total number of postdocs employed by FFRDCs in the United States—categorized by source of support, citizenship, sex, and field of research—as of October 1, 2009. The FFRDC survey is collected as part of the Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS), which is sponsored by the National Science Foundation (NSF) and the National Institutes of Health (NIH). Funding for the FFRDC survey is provided in part by the U.S. Department of Energy.

2. TECHNICAL NOTES

Survey Universe

The universe for the 2009 GSS-FFRDC survey was the Master Government List of Federally Funded Research and Development Centers (available at <http://www.nsf.gov/statistics/ffrdclist/start.cfm>). This list of FFRDCs has been kept by NSF since 1967. The master list of FFRDCs, as of April 2009, appears in appendix A. The survey universe, as of April 2009, consisted of 39 FFRDCs. Of these 39 FFRDCs, any that either currently had or could have a postdoc program was eligible to participate in the survey.

The 2009 survey also contacted the NIH’s Intramural Research Program because it employs the largest number of postdocs in the federal government. NIH is also a cosponsor of the GSS. However, because, NIH Intramurals is not an FFRDC, its data are reported separately from the data of the 39 FFRDCs.

Survey Instruments

The 2009 FFRDC survey collected data on the total number of postdocs employed by each center. A postdoc is defined by the GSS as an appointee who holds a PhD or equivalent doctorate; whose doctorate was awarded recently, generally within the past 5 years; whose appointment is for a limited term, generally no more than 5 to 7 years; who works under the supervision of a senior researcher; and whose appointment is primarily for the purpose of training in research or scholarship. The GSS definition of postdocs was provided in the survey glossary.¹

The FFRDC survey collected data via a web instrument. Topics included the type of support the postdocs received (federal and nonfederal), their sex, citizenship, race/ethnicity, and field of research. A copy of the survey questionnaire is included in appendix B.

Survey Methodology

On January 19, 2010, before starting data collection, RTI International (a trade name of Research Triangle Institute, Research Triangle Park, NC) contacted the directors of all 39 FFRDCs to confirm whether the individuals listed as respondents for previous data collections were still at their center and to determine whether these individuals would still be the most appropriate survey respondents or to obtain a respondent name when it was missing. Copies of these letters and all other communication with the FFRDCs are included in appendix C. Of the 39 directors who were asked to confirm a contact name, 33 had not replied after 1 week, when follow-up procedures began. RTI then e-mailed the respondent identified in 2007 to confirm whether the individual would be the respondent again. As necessary, RTI sent follow-up e-mail messages and made follow-up telephone calls to the directors or prior year respondents of the 33 FFRDCs that did not confirm the respondent. As a result of these efforts, a respondent was identified for the 39 contacted FFRDCs.

The survey instrument was e-mailed to all 39 FFRDCs as soon as a respondent was identified for the center. During the data collection process, 16 centers indicated that they did not have postdocs. The list of centers that said they had no postdocs was compared with past data, and RTI confirmed that those 16 FFRDCs

¹ As part of the survey, FFRDCs were also asked about their own requirements for postdocs (see table 4).

reported having no postdocs in past survey cycles or had been created since the most recent data collection year. Later in the data collection, these FFRDCs were sent an e-mail message asking them to consider whether they might have postdocs working at their center under the title of “postdoctoral fellow,” “postdoctoral researcher,” or “research associate.” Each of the 16 centers responded via e-mail or during a telephone follow-up and confirmed that they had no employees that met the definition of a postdoc working at their FFRDC. In all, 16 FFRDCs were ineligible. Table 1 lists the 39 FFRDCs that were contacted in the 2009 FFRDC survey, grouped by their administration type. The largest percentage of postdocs (42%) worked in university-administered FFRDCs, 36% worked in industry-administered FFRDCs, and 23% worked in nonprofit-administered FFRDCs.

The FFRDCs were informed in the cover letter that the survey was due on March 1, 2010. A series of follow-up communications with FFRDCs that had yet to respond began before the due date and continued until the final survey was returned on March 30, 2010. These follow-ups included both e-mails and telephone calls to the identified respondent. The schedule for the survey launch and follow-up communications is shown in table 2.

3. RESPONSE RATE CALCULATIONS

All 23 FFRDCs with postdocs responded to the survey. Four FFRDCs provided partial data; they did not report postdoc data by one or more of the categories of sex, citizenship, race/ethnicity, source of support, or field of research. (Please see section 4 for the specific categories that these FFRDCs were unable to report.) Using the American Association for Public Opinion Research (AAPOR) Response Rate 6 calculation, which counts partials as responses and is used when there are no cases with unknown eligibility, the response rate for the FFRDC data collection was 100%. The FFRDC response rate by week is shown in table 3.

According to the standard definition issued by AAPOR, Response Rate 6 is calculated using the following equation (AAPOR 2008):

$$RR6 = \frac{(I + P)}{(I + P) + (R + NC + O)}$$

where

RR = response rate

I = complete interview

P = partial interview

R = refusal and break-off

NC = noncontact

O = other

For this data collection, the response rate calculation is as follows:

$$RR2 = \frac{(21 + 1)}{(21 + 1) + (0 + 0 + 0)} = 100\%$$

TABLE 1. Postdoctorates at federally funded research and development centers: 2009

Institution	Sponsoring agency	Total postdoctorates
All FFRDCs		2,449
University-administered FFRDCs		1,022
Ames Laboratory	Department of Energy	
Argonne National Laboratory	Department of Energy	
Fermi National Accelerator Laboratory	Department of Energy	
Jet Propulsion Laboratory	National Aeronautics and Space Administration	
Lawrence Berkeley National Laboratory	Department of Energy	
Lincoln Laboratory	DOD, Department of the Air Force	
National Astronomy and Ionosphere Center	National Science Foundation	
National Center for Atmospheric Research	National Science Foundation	
National Optical Astronomy Observatory	National Science Foundation	
National Radio Astronomy Observatory	National Science Foundation	
Princeton Plasma Physics Laboratory	Department of Energy	
SLAC National Accelerator Laboratory	Department of Energy	
Software Engineering Institute	DOD, Department of the Army	
Thomas Jefferson National Accelerator Facility	Department of Energy	
Nonprofit-administered FFRDCs		557
Aerospace Federally Funded R&D Center	DOD, Department of the Air Force	
Arroyo Center	DOD, Department of the Army	
Brookhaven National Laboratory	Department of Energy	
C3I Federally Funded R&D Center	DOD, Office of the Secretary of Defense	
Center for Advanced Aviation System Development	DOT, Federal Aviation Administration	
Center for Enterprise Modernization	DOD, Department of the Treasury and Department of Veterans Affairs, IRS	
Center for Naval Analyses	DOD, Department of the Navy	
Center for Nuclear Waste Regulatory Analyses	Nuclear Regulatory Commission	
Centers for Communication and Computing	DOD, National Security Agency	
Homeland Security Studies and Analysis Institute	DHS, Under Secretary for Science and Technology	
Homeland Security Systems Engineering and Development Institute	DHS, Under Secretary for Science and Technology	
National Biodefense Analysis and Countermeasures Center	DHS, Under Secretary for Science and Technology	
National Defense Research Institute	DOD, Office of the Secretary of Defense	
National Renewable Energy Laboratory	Department of Energy	
Oak Ridge National Laboratory	Department of Energy	
Pacific Northwest National Laboratory	Department of Energy	
Project Air Force	DOD, Department of the Air Force	
Science and Technology Policy Institute	National Science Foundation	
Studies and Analyses Center	DOD, Office of the Secretary of Defense	
Industry-administered FFRDCs		870
Idaho National Laboratory	Department of Energy	
Lawrence Livermore National Laboratory ^a	Department of Energy	
Los Alamos National Laboratory	Department of Energy	
National Cancer Institute at Frederick	HHS, National Institutes of Health	
Sandia National Laboratories	Department of Energy	
Savannah River National Laboratory	Department of Energy	

NOTE: DHS = Department of Homeland Security; DOD = Department of Defense; DOT = Department of Transportation; FFRDC = federally funded research and development center; HHS = Department of Health and Human Services; IRS = Internal Revenue Service. DOD, DHS and DOT sponsored FFRDCs do not employ any postdocs. DOE, NASA, NSF and NHS FFRDCs all employ postdocs.

^a Lawrence Livermore National Laboratory became industry-administered in October 2007. Previously, it was university-administered.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009.

TABLE 2. Survey launch and follow-up communications schedule

Date	Type of communication
January 19, 2010	Director contact letter
January 26–29, 2010	Telephone calls to confirm respondent contact information if not yet received
February 1, 2010	Survey launch via e-mail with login information
February 18, 2010	First nonresponder e-mail prompt (for cases at "no activity")
February 23, 2010	First nonresponder e-mail prompt (for cases at "logged in")
February 24–25, 2010	Telephone calls to confirm e-mail receipt for "no activity" cases
March 1, 2010	Second nonresponder e-mail prompt (for all incomplete cases)
March 15, 2010	Third nonresponder e-mail prompt (for all incomplete cases)
March 15, 2010	E-mail to confirm "0" postdoc status for FFRDCs who reported no postdocs via e-mail or telephone
March 30, 2010	Survey closed upon receipt of final survey

FFRDC = federally funded research and development center.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009.

TABLE 3. Cumulative response rates, by week

Weeks after survey login e-mailed (February 1, 2010)	Response, by week		Cumulative response rate	
	Responded	Response rate (%)	Total	Response rate (%)
1	2	8.7	2	8.7
2	0	0	2	8.7
3	4	17	6	26
4	8	35	14	60.9
5	5	22	19	82.6
6	1	4.3	20	87
7	1	4.3	21	91.3
8	1	4.3	22	95.7
9 (final)	1	4.3	23	100

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009.

4. EDITING AND MISSING DATA PROCEDURES

As each FFRDC returned data, RTI staff reviewed the submission to confirm that all data fields were completed and that data were internally consistent. In cases where additional information or corrections were needed, respondents were contacted by telephone or e-mail and asked to correct and resubmit the survey.

RTI conducted a comprehensive review of 12 FFRDCs that were flagged for edit verification. If an FFRDC had cell counts that were more than 20% above or 20% below their prior year data, that center was flagged for edit verification. In all cases, respondents confirmed their data as accurate, with changes usually explained by factors such as a hiring freeze or changes in the FFRDCs' internal tracking systems for administrative data.

Four FFRDCs checked a box on the survey to indicate they could not provide postdoc data broken out by specific categories. Three could not report postdocs by field of research. Three could not break out postdoc data by citizenship, two could not by race/ethnicity, and one could not by sex or source of support.

5. RESULTS AND DISCUSSION

Data were collected on FFRDC postdoc definitional requirements and are displayed in table 4. Data on the number of postdocs by source of support, citizenship, sex, and field of research are displayed in tables 5 through 10; please note that data were not provided for all items by all FFRDCs. Based on other NSF work, NIH Intramural Research Programs were found to employ the largest number of postdocs in the federal government. The FFRDC survey is a first step in collecting information on postdocs employed in federal agencies. Data for NIH Intramural Research Programs are provided in tables 11 through 13, although they are not an FFRDC. Appendix D provides trend data from 2004 through 2007 and 2009; data were not collected in 2008.

Postdoctoral Requirements

The 2009 survey added several items to the FFRDC survey. The first of these was an item asking FFRDCs whether they had a formal definition of postdocs and what requirements the FFRDC had for postdoc positions. Over three-quarters (18) of the FFRDCs reported having a formal definition of a postdoc (table 4). All FFRDCs required that the postdoc have a doctoral degree or equivalent and defined the position as one intended to advance professional skills and lasting for a defined period of time. The least common postdoc requirement was that postdocs publish research in scholarly journals, with only 13 FFRDCs, or 56%, indicating they had this requirement.

Race/Ethnicity

New to the survey in 2009 was an item requesting data on race/ethnicity for postdocs who were U.S. citizens or permanent residents (non-U.S. citizens with green cards). Race/ethnicity data were reported for 92% of postdocs. Two FFRDCs did not report race/ethnicity. Of the postdocs for whom race/ethnicity data were reported, only 3% were reported as unknown (table 5).

TABLE 4. Federally funded research and development center postdoctoral requirements: 2009

Elements of postdoc definition	Number of FFRDCs
All FFRDCs	23
FFRDC has a formal definition of postdoc position	
Yes	18
No	5
Postdoc requirements	
PhD or equivalent degree (e.g., ScD, MD, DVM, DDS)	23
Publication of research in scholarly journals	13
Postdoc must work under the direction of a senior scholar	18
Doctorate was recently awarded	19
Mentorship for professional development	20
Position is temporary	20
Full-time commitment to research	21
Prepare the postdoc for an independent career in research	21
Position intended to provide training in research	22
Position intended to advance professional skills	23
Position is for a defined period of time (i.e., has a term limit)	23

FFRDC = federally funded research and development center.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009

TABLE 5. Postdoctorates, by ethnicity and race, for U.S. citizens and permanent residents (non-U.S. citizens with green cards): 2009

FFRDC	Ethnicity			Race			
	All postdoctorates	Hispanic/Latino (one or more races)	Non-Hispanic/Latino (one or more races)	Asian	Black	White	All other races
All FFRDCs	979	39	860	115	18	691	36
University-administered FFRDCs	332	10	322	48	7	239	28
Nonprofit-administered FFRDCs	193	6	187	12	D	167	D
Industry-administered FFRDCs	454	23	431	55	D	285	D

FFRDC = federally funded research and development center. D = suppressed to avoid disclosure of confidential information.

NOTE: Data by ethnicity and race were not provided by all FFRDCs; details may not sum to total. Table includes U.S. citizens and permanent residents only.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009.

Source of Support

Primary source of support was reported for 99% of postdocs (table 6). Source of support was reported for 84% of postdocs who were U.S. citizens and permanent residents and for 80% of postdocs who were temporary visa holders. Citizenship data were reported for 84% of postdocs who were federally supported but for only 52% of postdocs who were not federally supported.

TABLE 6. Postdoctorates at federally funded research and development centers, by source of support, sex, and citizenship: 2009

Source of support and sex	All postdoctorates	Citizenship	
		U.S. citizens and permanent residents	Temporary visa holders
All postdoctorates	2,449	979	1,460
Federal support	2,258	770	1,124
Nonfederal support	181	52	42
Postdoctorates reporting sex			
Male	1,679	663	1,016
Female	513	236	277

D = suppressed to avoid disclosure of confidential information.

NOTE: Data by sex and citizenship were not provided by all federally funded research and development centers; details may not sum to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009.

The vast majority of postdocs (92%) were primarily supported by federal funds. Among federally funded postdocs for whom data were reported, slightly more than half (59%) of federal support was received by temporary visa holders, with much higher percentages found at three FFRDCs (table 7). Among nonfederally funded postdocs for whom data were reported, slightly more than half (55%) were U.S. citizens. Only one FFRDC reported having more postdocs who were nonfederally supported than were federally supported (table 7).

TABLE 7. Postdoctorates at federally funded research and development centers, by source of support and citizenship: 2009

FFRDC	All postdoctorates	Source of support					
		Federal			Nonfederal		
		Total federal	U.S. citizens and permanent residents	Temporary visa holders	Total nonfederal	U.S. citizens and permanent residents	Temporary visa holders
All FFRDCs	2,449	2,258	770	1,124	181	52	42
University-administered FFRDCs	1,022	907	162	381	115	D	D
Nonprofit-administered FFRDCs	557	554	191	363	3	D	D
Industry-administered FFRDCs	870	797	417	380	63	D	D

FFRDC = federally funded research and development center. D = suppressed to avoid disclosure of confidential information.

NOTE: Data by support and citizenship were not provided by all FFRDCs; details may not sum to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009.

Citizenship

Citizenship data were among the best-reported items on the survey, with information provided for 99% of postdocs. Only one FFRDC was unable to provide the data. Postdocs with temporary visas made up 60% of the total number of postdocs (table 6).

Support by citizenship was less well reported, with support data provided for 84% of U.S. citizens and 80% of temporary visa holders. Of those postdocs for whom support data were available, 94% who were U.S.

citizens and 96% who held temporary visas were federally supported (table 6). Just over half (55%) of nonfederally supported postdocs were U.S. citizens.

Sex

Sex data were reported for 90% of all postdocs, with 77% of those being male (table 6). Approximately 61% of male postdocs and 54% of female postdocs were temporary visa holders (table 8). Sex information was reported for 92% of postdocs who were U.S. citizens and 89% of postdocs who held temporary visas (table 6). Of those postdocs for whom sex data were reported, only 21% of those who held temporary visas and 26% of those who were U.S. citizens were female (table 6).

TABLE 8. Postdoctorates at federally funded research and development centers, by sex and citizenship: 2009

FFRDC	All postdoctorates	Sex					
		Male			Female		
		Total male	U.S. citizens and permanent residents	Temporary visa holders	Total female	U.S. citizens and permanent residents	Temporary visa holders
All FFRDCs	2,449	1,679	663	1,016	513	236	277
University-administered FFRDCs	1,022	757	223	524	265	99	166
Nonprofit-administered FFRDCs	557	441	143	298	116	50	66
Industry-administered FFRDCs	870	481	287	194	132	87	45

NA = not available. D = suppressed to avoid disclosure of confidential information.

FFRDC = federally funded research and development center.

NOTE: Data by sex were not provided by all FFRDCs; details may not sum to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009.

Field of Research

The 2009 FFRDC survey added questions about postdoc field of research. This information was reported by FFRDCs for 84% of postdocs. Science fields accounted for 73% of postdocs at FFRDCs reporting field of research (table 9). Engineering fields accounted for 20%, while about 7% of postdocs were in multidisciplinary fields or unknown fields of research. Physics/astronomy postdocs accounted for 45% of those in science fields, followed by 23% in chemistry. Materials/metallurgical engineering was the most commonly reported engineering field (36%), followed by 17% each in mechanical engineering and chemical engineering.

Citizenship by field of research information was provided for 84% of postdocs. Of those, 72% of postdocs who were U.S. citizens and 74% of postdocs who held temporary visas were in the sciences. Of those

postdocs in science fields, 59% were postdocs with temporary visas. Of those postdocs in engineering fields, 57% were postdocs with temporary visas.

TABLE 9. Postdoctorates, by specific field of research and citizenship: 2009

Field of research	Total	U.S. citizens and permanent residents	Temporary visa holders
All FFRDCs	2,449	854	1,206
Science	1,502	614	888
Earth, atmospheric, and ocean sciences	101	55	46
Mathematical sciences	34	19	15
Computer sciences	83	34	49
Biological sciences	193	79	114
Physics/astronomy	672	240	432
Chemistry	352	161	191
Other science	67	26	41
Engineering	410	177	233
Chemical engineering	68	28	40
Civil engineering	7	D	D
Electrical engineering	56	25	31
Materials/metallurgical engineering	146	54	92
Mechanical engineering	70	38	32
Nuclear engineering	28	11	17
Other engineering	42	21	21
Multidisciplinary/ Field of research not known	148	D	D

FFRDC = federally funded research and development center. D = suppressed to avoid disclosure of confidential information.

NOTE: Data by field of research and citizenship were not provided by all FFRDCs; details may not sum to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009.

TABLE 10. Postdoctorates, by type of federally funded research and development center, by administration type, citizenship, and sex: 2009

	Citizenship			Sex	
	Total	U.S. citizens and permanent residents	Temporary visa holders	Male	Female
All FFRDCs	2,449	979	1,460	1,679	513
University-administered FFRDCs	1,022	332	690	757	265
Nonprofit-administered FFRDCs	557	193	364	441	116
Industry-administered FFRDCs	870	374	239	481	132

FFRDC = federally funded research and development center.

NOTE: Data by citizenship and sex were not provided by all FFRDCs; details may not sum to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009.

FFRDC Administration Type

Administration type was information collected from the Master Government List of Federally Funded Research and Development Centers (available at <http://www.nsf.gov/statistics/ffrdclist/start.cfm>), maintained by NSF since 1967. As noted in section 2 above, university-administered FFRDCs employed the greatest percentage of postdocs (42%), with 36% reported to be in industry-administered FFRDCs, and 23% reported to be in nonprofit-administered FFRDCs (table 10). Citizenship and sex information was provided for only 70% of postdocs at industry-administered FFRDCs, as opposed to 100% of postdocs at university- and nonprofit-

administered FFRDCs. Temporary visa holders made up about two-thirds of the postdocs at both university-administered and nonprofit-administered FFRDCs, while U.S. citizens outnumbered temporary visa holders at industry-administered FFRDCs with 61% of the postdocs. University-administered FFRDCs reported that their postdocs were 74% male, while 79% of postdocs at nonprofit-administered FFRDCs were male, and 78% of postdocs at industry-administered FFRDCs were male.

NIH Intramural Research Program Findings

The NIH Intramural Research Program reported employing a total of 3,635 postdocs in 2009. Reporting by item was low or nonexistent for some of the items asked. Data by sex were provided for only about half (53%) of the postdocs. Race/ethnicity and field of research were not reported for any of the postdocs. The findings specific to NIH Intramurals are found in tables 11 and 12:

- **Postdoctoral requirements.** NIH Intramurals reported having a formal definition of postdocs; as with most FFRDCs, they had all the requirements listed in table 4.
- **Source of support.** This information was provided for all NIH Intramurals postdocs. Close to 98% of postdocs were federally supported, with a slightly higher percent (99%) among U.S. citizens and a slightly lower percent (96%) among temporary visa holders (table 11).
- **Citizenship.** Citizenship information was reported for all NIH Intramurals postdocs. Approximately 41% of postdocs were U.S. citizens (table 11). Nearly all postdocs who were U.S. citizens were federally supported (99%), and 96% of postdocs who held temporary visas were federally supported (table 12).
- **Sex.** Sex was reported for only about half, or 1,921 of the 3,635, of postdocs in the NIH Intramurals (table 11). It should be noted, however, that those 1,921 postdocs represented data from 17 of the 23 NIH Intramurals programs. For those NIH Intramurals postdocs for whom sex data were available, there were more males than females (1,107 males; 814 females). The percentage of postdocs who were female (42%) was higher than it was at FFRDCs (23% female postdocs).

TABLE 11. Postdoctorates at National Institutes of Health Intramural Research Programs, by source of support, sex, and citizenship: 2009

Source of support and sex	All postdoctorates	Citizenship	
		U.S. citizens and permanent residents	Temporary visa holders
All postdoctorates	3,635	1,493	2,142
Federal support	3,550	1,491	2,059
Nonfederal support	85	2	83
Postdoctorates reporting sex			
Total	1,921	723	1,198
Male	1,107	370	737
Female	814	353	461

NOTE: Data were not provided for all National Institutes of Health Research Programs; details may not sum to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009.

TABLE 12. Postdoctorates at National Institutes of Health Intramural Research Programs, by source of support and citizenship: 2009

Program	All postdoctorates	Source of support					
		Federal			Nonfederal		
		Total federal	U.S. citizens and permanent residents	Temporary visa holders	Total nonfederal	U.S. citizens and permanent residents	Temporary visa holders
National Institutes of Health Intramural Research Programs	3,635	3,548	1,506	2,042	85	2	83

NOTE: Data were not provided for all National Institutes of Health Research Programs; details may not sum to total.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009.

6. DEBRIEFINGS

In order to collect information on how well FFRDCs were able to use the web instrument that was new to the 2009 survey and to determine what types of information might be collected from FFRDCs in future surveys, debriefing interviews were conducted with three FFRDCs. Debriefings took approximately 15 minutes and were completed over the telephone about 6 weeks after respondents had completed the survey. Respondents had the web instrument available to view during the debriefings.

Overall, FFRDCs found the web instrument to be an improvement over the worksheet approach used in prior years. The FFRDCs found the items easy to navigate, with clear instructions and well-defined purpose.

The main findings from the debriefing are summarized as follows:

- **Background information.** Debriefing participants had been at their respective institutions for between 9 and 22 years, and each had responded to the FFRDC survey in the past. All three FFRDCs reported they were able to include all postdocs. Two of the FFRDCs relied on job titles assigned at hiring by human resources to identify their postdocs; the third FFRDC relied on administrative staff in the various directorates to identify the postdocs, but he was confident they used a common definition and that all had been included.
- **Survey information/instructions.** All participants reported they had read the instructions page, found it clear and helpful, but did not need to refer to it again during the survey. All were familiar with the term “FFRDC.”
- **Postdoc definition.** None of the participants reported any difficulty responding to this item, and none were able to think of a component of their definition of postdoc that was not included in the list of elements provided. All three FFRDCs indicated it would be helpful if NSF provided its definition of postdoc just so they could be certain there was a common understanding of who should be included.
- **Demographics.** All three FFRDCs reported tracking race/ethnicity information in their systems and that they used the same categories internally as were used on the survey. All three FFRDCs indicated they were able to report this information for all of their postdocs.
- **Financial support by citizenship.** All three FFRDCs reported having this information readily available for all their postdocs. These FFRDCs each used internal charge codes to determine how

each postdoc was being supported. One participant had wondered whether “nonfederal” meant “non-NSF” or meant she should include only postdocs who received no type of federal support. Each indicated they could report the specific federal agencies providing support.

- Field of research by citizenship. Field of research information was determined slightly differently among the three FFRDCs debriefed. One reported using the field in which postdocs had obtained their degree. Another reported basing field of research on the area in which the postdoc was currently working. The third reported needing to rely on staff in the individual directorates to report back field of research for their postdocs, so it is not certain how each of those directorates made the determination. The level of detail in field category was acceptable to all three FFRDCs.
- Glossary. One participant was unaware of the glossary, one indicated she found it helpful to confirm that she was understanding key terms correctly, and the third indicated he was aware of it but did not need to refer to it. No one suggested additional definitions that could be included.
- General. All three FFRDC participants felt they were the best person at their FFRDC to respond to the survey. Two were human resources staff and did not need other staff to help answer the items. The third needed to obtain information from the various directorates housing the postdocs. All three liked reporting based on fiscal year, so that October 1 was a useful reference date for them.

7. REFERENCES

American Association for Public Opinion Research (AAPOR). 2008. *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys*. 5th ed. Lenexa, KS.

National Science Foundation/Division of Sciences Resources Statistics (NSF/SRS). 2006. *Federal Funds for Research and Development: Fiscal Years 2003–05*. Detailed Statistical Tables NSF 06-313. Arlington, VA. Available at <http://www.nsf.gov/statistics/nsf06313/pdf/nsf06313.pdf>.

APPENDIX A:
MASTER LIST OF FFRDCs, APRIL 2009

TABLE A-1. Master list of federally funded research and development centers: 2009

FFRDC

Aerospace Federally Funded R&D Center
 Ames Laboratory
 Argonne National Laboratory
 Arroyo Center
 Brookhaven National Laboratory
 C3I Federally Funded R&D Center
 Center for Advanced Aviation System Development
 Center for Enterprise Modernization
 Center for Naval Analyses
 Center for Nuclear Waste Regulatory Analyses
 Centers for Communications and Computing
 Fermi National Accelerator Laboratory
 Homeland Security Studies and Analysis Institute
 Homeland Security Systems Engineering and Development Institute
 Idaho National Laboratory
 Jet Propulsion Laboratory
 Lawrence Berkeley National Laboratory
 Lawrence Livermore National Laboratory
 Lincoln Laboratory
 Los Alamos National Laboratory
 National Astronomy and Ionosphere Center
 National Biodefense Analysis and Countermeasures Center
 National Cancer Institute at Frederick
 National Center for Atmospheric Research
 National Defense Research Institute
 National Optical Astronomy Observatory
 National Radio Astronomy Observatory
 National Renewable Energy Laboratory
 Oak Ridge National Laboratory
 Pacific Northwest National Laboratory
 Princeton Plasma Physics Laboratory
 Project Air Force
 Sandia National Laboratories
 Savannah River National Laboratory
 Science and Technology Policy Institute
 Software Engineering Institute
 SLAC National Accelerator Laboratory
 Studies and Analyses Center
 Thomas Jefferson National Accelerator Facility

FFRDC = federally funded research and development center.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2009.

APPENDIX B:
FFRDC SURVEY COVER E-MAIL AND INSTRUMENT

Subject: NSF Survey of Postdoctorates at FFRDCs

I am writing to invite you to join with other Federally Funded Research and Development Centers (FFRDCs) across the country in the National Science Foundation (NSF) Survey of postdoctoral appointees (postdocs) at FFRDCs. Your postdoctoral program serves as an important national resource in developing our nation's most talented researchers.

We are contacting you because you completed this survey for your organization in the past. Your ID and password are provided below. They give you access to the survey's web site. You may access the survey at any time using this link:

<http://www.ffrdc2009.org/>

Your User ID: [user ID]

Your Password: [password]

Your FFRDC: [FFRDC name]

Please complete the survey by March 1, 2010.

If you are not the correct person to respond to this survey, or if you have any questions, please contact Jean Lennon at ffrdc@rti.org or 1-800-848-4075. You may also contact me at (703) 292-7790 (sthill@nsf.gov).

Sincerely,

Susan T. Hill
Project Manager
NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering
Division of Science Resources Statistics
National Science Foundation

Worksheet for 2009 Survey of Postdoctorates at Federally Funded Research and Development Centers (2009 FFRDC Survey)

Survey Information

Purpose and Background

For your FFRDC, report on the number and characteristics of postdocs. Your FFRDC is listed on the Master Government List of FFRDCs (<http://www.nsf.gov/statistics/ffrdc/start.cfm>), where FFRDC refers to the organizations, centers, laboratories, etc., named on that list.

This document provides a worksheet and instructions to help you compile your answers to the NSF 2009 Survey of Postdoctorates in FFRDCs. It is intended as an aid for use with the FFRDC Web survey. Please see the section **Submissions** below for more information about preparing and submitting your information.

Results from this survey will help provide NSF with a comprehensive picture of the training of the nation's postdocs in science, engineering, and health-related fields; postdocs in academic organization are gathered in the Survey of Graduate Students and Postdoctorates in Science and Engineering.

This information is collected under the authority of the National Science Foundation Act of 1950, as amended. Response is entirely voluntary. All information provided will be used for statistical purposes only. Not providing some or all of the information will in no way adversely affect your FFRDC.

Data Collected

Please use October 1, 2009 as the reference date when completing the items in the survey. This survey includes the following items:

- **Contact Information** – provide name, telephone number, and e-mail address for the survey respondent (the person completing this survey)
- **Item 1. Postdoc Definition** – identify the common characteristics of postdocs at your FFRDC
- **Item 2. Demographics** – provide counts of postdocs by citizenship, ethnicity/race, and sex
- **Item 3. Financial Support by Citizenship** – provide counts of postdocs by federal vs non-federal financial support and by citizenship
- **Item 4. Field of Research by Citizenship** – provide counts of postdocs by field of research and citizenship

Submissions

This worksheet is designed to aid you in gathering information for completing the FFRDC web survey.

- Use the FFRDC web survey to report and submit the information on this worksheet for your FFRDC
- Access the FFRDC survey at www.FFRDC2009.org, using the ID and password you will receive by e-mail
- Submit data online to NSF by **March 1, 2010**
- To print all pages of this worksheet, please select the option for "entire workbook" under the "print what" box

SURVEY HELP

If you lost the ID and/or password to access the web survey or have any questions about your submission, please contact Jean Lennon at FFRDC@rti.org or (800) 848-4075.

Please Go to Next Page: Contact Information

Worksheet for 2009 FFRDC Survey

Contact Information

FFRDC Name:	<input type="text"/>
FFRDC Address:	<input type="text"/>
Director's Name:	<input type="text"/>

Respondent's Name:	<input type="text"/>
Respondent's Telephone number: (XXX-XXX-XXXX)	<input type="text"/>
Respondent's E-mail Address:	<input type="text"/>

SURVEY HELP

For survey help, please contact Jean Lennon at FFRDC@rti.org or (800) 848-4075.

Please Go to Item 1. Postdoc Definition

Worksheet for 2009 FFRDC Survey

Item 1. Postdoc Definition

Different organizations have different definitions of postdocs. Listed below are common characteristics of postdocs used by different organizations. Please tell us which of the following characteristics are requirements for a postdoc at your FFRDC by placing a mark (X) in the appropriate column.

A. Postdoc Requirements	Is it required? <i>(Mark (X) Yes or No)</i>	
	Yes	No
▪ Requires a Ph.D. or an equivalent doctorate degree (such as a Sc. D., M.D., D.V.M., or D.D.S.)?		
▪ Requires that the doctorate was recently awarded?		
▪ Is a temporary position?		
▪ Is intended to provide training in research?		
▪ Is intended to advance professional skills?		
▪ Requires a full-time commitment to research?		
▪ Requires that the postdoc work under the direction of a senior scholar?		
▪ Is for a defined period of time (i.e. has a term limit)?		
▪ Requires publication of research in scholarly journals?		
▪ Requires mentorship for professional development?		
▪ Is intended to prepare the postdoc for an independent career in research?		

B. Does your FFRDC have a formal definition of a postdoc position? *Mark (X) yes or no.*

Yes
 No

C. As of October 1, what was the total number of postdocs at your FFRDC?

Please use your FFRDC's definition of a postdoc. If your FFRDC does not have a definition, see the NSF definition in the glossary. *(Note: please include clinical fellows if the primary purpose of the appointment is research)*

_____ Total postdocs

SURVEY HELP

For survey help, please contact Jean Lennon at FFRDC@rti.org or (800) 848-4075.

Please Go to Item 2. Demographics

Worksheet for 2009 FFRDC Survey**Item 2. Demographics**

As of October 1, 2009, how many male and female postdocs did this FFRDC have in each of the citizenship, ethnicity and race categories listed below?

Check this box if this unit had postdocs for which you cannot report complete data

- Please use your FFRDC's definition of a postdoc. See the **Glossary** for definitions of **foreign nationals, U.S. citizens and permanent residents, ethnicity, and race**
- Count postdocs who are Hispanic/Latino or Hispanic/Latino and any other race in Row B only
- Row and column totals are calculated automatically
- Count of total postdocs (Column 3, Row J) must match total postdocs in Item 1C

Citizenship, ethnicity, and race of postdocs (report postdocs in whole numbers)		Male 1	Female 2	Total 3
Foreign nationals holding temporary visas regardless of ethnicity or race	A	0	0	0
U.S. citizens and permanent residents (non-U.S. citizens holding green cards)				
• Hispanic/Latino ethnicity (one or more races).....	B	0	0	0
• Non-Hispanic/Latino ethnicity (one or more races)				
- One race, American Indian/Alaska Native.....	C	0	0	0
- One race, Asian.....	D	0	0	0
- One race, Black/African American.....	E	0	0	0
- One race, Native Hawaiian/Other Pacific Islander.....	F	0	0	0
- One race, White.....	G	0	0	0
- More than one race (non-Hispanic/Latino).....	H	0	0	0
• Ethnicity/race unknown or not stated.....	I	0	0	0
Total postdocs (sum Rows A-I).....	J	0	0	0

SURVEY HELP

For survey help, please contact Jean Lennon at FFRDC@rti.org or (800) 848-4075.

Please Go to Item 3. Financial Support

Worksheet for 2009 FFRDC Survey

Item 3. Financial Support

As of October 1, 2009, how many postdocs did this FFRDC have by citizenship status and federal/nonfederal financial support?

Check this box if this unit had postdocs for which you cannot report complete data

- Please use your FFRDC's definition of a postdoc. See the **Glossary** for definitions of **federal/non-federal financial support**, **foreign nationals**, and **U.S. citizens and permanent residents**
- Row and column totals are calculated automatically
- Count of total postdocs (Column 3, Row C) must match total postdocs in Item 1C

Federal vs non-Federal financial support of postdocs by citizenship. (report postdocs in whole numbers)	U.S. citizens & permanent residents 1	Foreign nationals (temp. visas) 2	Total postdocs 3
Postdocs with federal financial support A	0	0	0
Postdocs with non-federal financial support B	0	0	0
Total postdocs (sum Rows A-B) C	0	0	0

SURVEY HELP

For survey help, please contact Jean Lennon at FFRDC@rti.org or (800) 848-4075.

Please Go to Item 4. Field of Research

Worksheet for 2009 FFRDC Survey**Item 4: Field of Research**

Please list the divisions or fields of research for postdocs at your FFRDC and indicate how many postdocs were in each category overall and by citizenship status as of October 1, 2009.

Check this box if this unit had postdocs for which you cannot report complete data

- Please use your FFRDC's definition of a postdoc. See the Glossary definitions of fields of research foreign nationals, and U.S. Citizens and permanent residents
- Count postdocs in more than one field under one field only
- Row and column totals are calculated automatically
- Count of total postdocs (Column 3, Row c) must match total postdocs in Item 1C

Field of Research of postdocs (report postdocs in whole numbers)	U.S. citizens & permanent residents 1	Foreign nationals (temp. visas) 2	Total postdocs 3
Science Fields			
Agricultural Sciences	A 0	0	0
Biological Sciences	B 0	0	0
Chemistry	C 0	0	0
Computer Sciences	D 0	0	0
Earth, Atmospheric, and Ocean Sciences	E 0	0	0
Health Fields	F 0	0	0
Mathematical Sciences	G 0	0	0
Physics/Astronomy	H 0	0	0
Psychology	I 0	0	0
Social Sciences	J 0	0	0
Other Science Fields	K 0	0	0
Engineering Fields			
Aerospace Engineering	L 0	0	0
Agricultural Engineering	M 0	0	0
Biomedical Engineering	N 0	0	0
Chemical Engineering	O 0	0	0
Civil Engineering	P 0	0	0
Electrical Engineering	Q 0	0	0
Engineering Science and Physics	R 0	0	0
Industrial/Manufacturing Engineering	S 0	0	0
Materials/Metallurgical Engineering	T 0	0	0
Mechanical Engineering	U 0	0	0
Mining Engineering	V 0	0	0
Nuclear Engineering	W 0	0	0
Petroleum Engineering	X 0	0	0
Other Engineering Fields	Y 0	0	0
Multidisciplinary Fields	Z 0	0	0

Other				
Non Science or Engineering Field	a	0	0	0
Discipline Not Known	b	0	0	0
Total (Sum of Rows A-b)	c	0	0	0

SURVEY HELP

For survey help, please contact Jean Lennon at FFRDC@rti.org or (800) 848-4075.

Please Go to Next Page: Glossary

Worksheet for 2009 FFRDC Survey

Glossary

Field of research. The area of research that the postdoc's research currently focuses on. It may or may not be the field in which they received their degree. If a postdoc is in more than one field of research, please choose one field or multidisciplinary fields as appropriate.

Federal support. Postdoctoral support provided by a Federal agency such as the Department of Defense, Department of Energy, National Institutes of Health, or National Science Foundation.

Foreign nationals with temporary visas. Individuals in the United States on temporary visas. Do not include individuals who are native residents of Puerto Rico or a U.S. territory, or permanent residents holding green cards; they should be reported under U.S. citizens and permanent residents. Do not report foreign nationals by ethnicity or race.

Hispanic/Latino ethnicity. The U.S. Office of Management and Budget defines ethnicity separately from race (please see separate entry for Race). In this survey, ethnicity refers to whether an individual is of Hispanic or Latino descent—a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.

Non-federal support. Postdoctoral support provided by a non-federal source such as private industry, a nonprofit, or an academic organization.

Postdoc. The definition of a postdoc varies by organization. Please use your FFRDC's definition of a postdoc. NSF defines a postdoc as meeting both of the following qualifications:

- (1) Holds a recent doctoral degree, generally awarded within the last 5 years, such as PhD or equivalent (e.g., ScD or DEng), or first professional degree in a medical or related field (MD, DDS, DO, DVM), or foreign degree equivalent to a U.S. doctoral degree; and
- (2) Has a limited-term appointment, generally no more than 5–7 years, primarily for training in research or scholarship and working under the supervision of a senior scholar in a unit affiliated with your organization.

Race. Only report race for U.S. citizens (including those from Puerto Rico and U.S. territories) and permanent residents. All foreign nationals holding temporary visas should be reported in Row A. The U.S. Office of Management and Budget defines race separately from ethnicity (please see entry for Ethnicity). The FFRDC survey uses the following definitions of race:

- One race, American Indian or Alaska Native—A person of only one race having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment
- One race, Asian—A person of only one race having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam
- One race, Black or African American—A person of only one race having origins in any of the black racial groups of Africa
- One race, Native Hawaiian or Other Pacific Islander—A person of only one race having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific islands
- One race, White—A person of only one race having origins in any of the original peoples of Europe, the Middle East, or North Africa
- More than one race reported (non-Hispanic/Latino)—Individuals reporting two or more of the race categories listed above. Individuals who report being Hispanic/Latino and one or more race, should be reported in Row B instead.

U.S. citizens and permanent residents. U.S. citizens, including those from Puerto Rico and the U.S. territories, and permanent residents holding green cards.

APPENDIX C:
RESPONDENT COMMUNICATION MATERIALS

1. DIRECTOR'S LETTER



National Science Foundation 2009 Survey of Postdoctorates at Federally Funded Research and Development Centers

January 15, 2010

[Insert FFRDC head's name,
name of center, and
address]

Dear [Insert title and last name]:

We invite you to join with other Federally Funded Research and Development Centers (FFRDCs) in the National Science Foundation's (NSF) survey of postdoctoral appointees (postdocs) at FFRDCs. Your postdoctoral program serves as an important national resource in developing our country's most talented researchers. The NSF collects information on the number and characteristics of postdocs in science, engineering and health-related fields at the nation's colleges, universities, and FFRDCs. This study is being conducted in connection with the Survey of Graduate Students and Postdoctorates in Science and Engineering and with support from the Department of Energy and the National Institutes of Health.

For the first time, the FFRDC survey will be administered via the Web. To obtain the most accurate information, we need your help in identifying the best person to provide data about postdocs at [CENTER NAME]. I have attached a copy of this year's survey form to help you to determine the best person. The following person responded in the last FFRDC survey on postdocs:

Name: [CONTACT NAME]
Phone: [CONTACT PHONE]
E-mail: [CONTACT E-MAIL]

Please contact us to confirm that the person above is still the best respondent for this year's FFRDC survey or, if not, to provide the name and contact information for a new respondent. To do this, please e-mail Jean Lennon at FFRDC@rti.org or call her at 1-800-848-4075.

Your FFRDC's participation in this survey is voluntary but in the past the participation of FFRDCs has been 100 percent, given the importance of this effort.

If you have any questions, please contact Jean Lennon at 1-800-848-4075 (FFRDC@rti.org) or the project officer, Susan T. Hill, of the Division of Science Resources Statistics at NSF at (703) 292-7790 (sthill@nsf.gov).

Thank you for your cooperation; we look forward to working with you.

Sincerely,

Lynda T. Carlson, Ph.D.
Director, Division of Science Resources Statistics
National Science Foundation

2. DIRECTOR NONRESPONSE TELEPHONE SCRIPT

Hello, my name is (). I'm calling from RTI on behalf of the National Science Foundation This call is about the 2009 study on postdoctoral appointees in Federally Funded Research and Development Centers (FFRDCs). I wanted to check in with you to make sure that you are the appropriate respondent for the survey this year. About a week ago, we e-mailed your director some study information and asked [him/her] to confirm the appropriate respondent. Are you still the best respondent for this FFRDC?

[Describe purpose of study if necessary.]

Thank you for your assistance.

VOICEMAIL SCRIPT:

Hi, I'm _____ from RTI calling on behalf of the National Science Foundation. I wanted to confirm that you received the materials we sent about the study on postdoctoral appointees in Federally Funded Research and Development Centers (FFRDCs). We would like to identify the best respondent at your center to provide the data. Please e-mail me or call me back at your earliest convenience. My e-mail address is FFRDC@rti.org and my phone number is: _____.

3. RESPONDENT KICK-OFF E-MAIL

Subject: NSF Survey of Postdoctorates at FFRDCs

I am writing to invite you to join with other Federally Funded Research and Development Centers (FFRDCs) across the country in the National Science Foundation (NSF) Survey of postdoctoral appointees (postdocs) at FFRDCs. Your postdoctoral program serves as an important national resource in developing our nation's most talented researchers.

We are contacting you because you completed this survey for your organization in the past. Your ID and password are provided below. They give you access to the survey's web site. You may access the survey at any time using this link:

<http://www.ffrdc2009.org/>

Your User ID: [user ID]

Your Password: [password]

Your FFRDC: [FFRDC name]

Please complete the survey by March 1, 2010.

If you are not the correct person to respond to this survey, or if you have any questions, please contact Jean Lennon at ffrdc@rti.org or 1-800-848-4075. You may also contact me at (703) 292-7790 (sthill@nsf.gov).

Sincerely,

Susan T. Hill
Project Manager
NSF-NIH Survey of Graduate Students and Postdoctorates in Science and Engineering
Division of Science Resources Statistics
National Science Foundation

4. FIRST E-MAIL PROMPT FOR NONRESPONDERS

Dear [name],

I am writing to confirm that you received the National Science Foundation (NSF) Survey of Postdoctoral Appointees at Federally Funded Research and Development Centers (FFRDCs) that was sent via e-mail on January 31. If you did not receive the e-mail, or if you had any problems logging into the survey, or if you think you are not the appropriate person to complete the survey, please contact me at 1-800-848-4075 or at FFRDC@rti.org.

Your ID and password are provided below. They give you access to the survey's web site. You may access the survey at any time using this link:

<http://www.ffrdc2009.org/>

Your User ID: [user ID]

Your Password: [password]

Your FFRDC: [FFRDC name]

Please complete the survey by March 1, 2010.

If you have any questions about the survey, please feel free to contact me, or contact the survey manager, Susan Hill of the Division of Science Resources Statistics at NSF at (703) 292-7790 (sthill@nsf.gov).

Thank you for your cooperation.

Jean Lennon, Ph.D.
RTI International
3040 E Cornwallis Road
PO Box 12194
Durham, NC 27709
1-800-848-4075

5. SECOND E-MAIL PROMPT FOR NONRESPONDERS

Dear [name],

I am writing to remind you that the National Science Foundation (NSF) Survey of Postdoctoral Appointees at Federally Funded Research and Development Centers (FFRDCs) is due today, Monday, March 1. Please complete the survey as soon as possible using the login credentials below:

<http://www.ffrdc2009.org/>

Your User ID: [user ID]

Your Password: [password]

Your FFRDC: [FFRDC name]

If you have any questions about the survey, please feel free to contact me, or contact the survey manager, Susan Hill of the Division of Science Resources Statistics at NSF at (703) 292-7790 (sthill@nsf.gov).

Thank you for your cooperation.

Jean Lennon, Ph.D.
RTI International
3040 E Cornwallis Road
PO Box 12194
Durham, NC 27709
1-800-848-4075

6. THIRD E-MAIL PROMPT FOR NONRESPONDERS

I am writing to remind you that the National Science Foundation (NSF) Survey of Postdoctoral Appointees at Federally Funded Research and Development Centers (FFRDCs) **was due on Monday, March 1**. Please complete the survey as soon as possible. For your convenience, your login information is included again here:

Your User ID: [user ID]

Your Password: [password]

Your FFRDC: [FFRDC name]

The survey link: <http://www.ffrdc2009.org/>

If you are having problems with the survey or if you are no longer the correct person to respond to this survey, or if you have any questions, please contact me at the number below or contact the survey manager, Emilda Rivers of the Division of Science Resources Statistics at NSF at (703) 292-7773 (erivers@nsf.gov).

Thank you for your cooperation.

Jean M. Lennon, Ph.D.

Education Studies Division

RTI International

3040 Cornwallis Road

Research Triangle Park, NC 27709

Telephone: 1-800-848-4075

E-mail: ffrdc@rti.org

7. E-MAIL TO FFRDCS WITH NO POSTDOCS

Thank you for contacting us concerning our FFRDC survey. During that contact, you said that [center name] did not have postdoctoral appointees.

In our research, we have learned that some Centers use other personnel titles to identify “postdoctoral appointees.” These titles include “postdoctoral fellows,” “postdoctoral researchers,” and “research associates.” Prior to closing out our survey, we need to contact you once more to find out if your Center uses any of these other terms. If so, your Center should report data to us about individuals with these different titles. To do so, please use the login information below and complete the survey as soon as possible.

Your User ID: [user ID]

Your Password: [password]

Your FFRDC: [FFRDC name]

The survey link: <http://www.ffrdc2009.org/>

If you do not have any postdoctoral appointees, please respond to this e-mail or call me at 1-800-848-4075 with a yes or no answer to the two questions below.

- 1. Did this FFRDC ever have a postdoc program?**
- 2. Does this FFRDC have plans to have a postdoc program in the future?**

We would appreciate a response by Friday so that we may conclude our data collection activities promptly. Thank you again for your support of this survey. If you have any other questions, please feel free to contact me or contact the survey manager, Emilda Rivers of the Division of Science Resources Statistics at NSF at (703) 292-7773 (erivers@nsf.gov). Thank you for your patience and assistance.

Jean M. Lennon, Ph.D.
Education Studies Division
RTI International
3040 Cornwallis Road
Research Triangle Park, NC 27709
Telephone: 1-800-848-4075
E-mail: ffrdc@rti.org

APPENDIX D:
SUMMARY TABLES, 2004–07, 2009

TABLE D-1. Total postdoctorates: 2004–07, 2009

FFRDC	2004 postdoctorates	2005 postdoctorates	2006 postdoctorates	2007 postdoctorates	2009 postdoctorates
All FFRDCs	2,212	1,820	2,147	2,235	2,449
University-administered FFRDCs	977	788	820	825	1,022
Nonprofit-administered FFRDCs	450	403	373	443	557
Industry-administered FFRDCs	785	629	954	967	870

FFRDC = federally funded research and development center.

NOTES: Interpret large changes between years with caution; numbers have been verified, but changes may be the result of programmatic changes at the institutional level that were not tracked. Data were not collected in 2008.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2004–07, 2009.

TABLE D-2. Total postdoctorates, female temporary visa holders: 2004–07, 2009

FFRDC	2004			2005			2006			2007			2009		
	All postdocs	Females	Female temporary visa holders	All postdocs	Females	Female temporary visa holders	All postdocs	Females	Female temporary visa holders	All postdocs	Females	Female temporary visa holders	All postdocs	Females	Female temporary visa holders
All FFRDCs	2,212	445	166	1,820	390	193	2,147	455	278	2,235	450	254	2,449	513	277
University-administered FFRDCs	977	190	60	788	192	76	820	228	158	825	192	131	1,022	265	166
Nonprofit-administered FFRDCs	450	90	44	403	87	70	373	86	58	443	108	72	557	116	66
Industry-administered FFRDCs	785	165	62	629	111	47	954	141	62	967	150	51	870	132	45

NA = not available.

FFRDC = federally funded research and development center.

NOTES: Interpret large changes between years with caution; numbers have been verified, but changes may be the result of programmatic changes at the institution level that were not tracked. Data were not collected in 2008.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2004–07, 2009.

TABLE D-3. Total postdoctorates, male temporary visa holders: 2004–07, 2009

FFRDC	2004			2005			2006			2007			2009		
	All postdocs	Males	Male temporary visa holders	All postdocs	Males	Male temporary visa holders	All postdocs	Males	Male temporary visa holders	All postdocs	Males	Male temporary visa holders	All postdocs	Males	Male temporary visa holders
All FFRDCs	2,212	1,767	860	1,820	1,430	927	2,147	1,373	921	2,235	1,461	906	2,449	1,679	1,016
University-administered FFRDCs	977	787	323	788	596	474	820	592	436	825	633	459	1,022	757	524
Nonprofit-administered FFRDCs	450	360	226	403	316	201	373	287	230	443	335	224	557	441	298
Industry-administered FFRDCs	785	620	311	629	518	252	954	494	255	967	493	223	870	481	194

NA = not available.

FFRDC = federally funded research and development center.

NOTES: Interpret large changes between years with caution; numbers have been verified, but changes may be the result of programmatic changes at the institution level that were not tracked. Data were not collected in 2008.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2004–07, 2009.

TABLE D-4. Postdoctorates, by citizenship: 2004–07, 2009

FFRDC	2004			2005			2006			2007			2009		
	All postdocs	U.S. citizens and permanent residents	Temporary visa holders	All postdocs	U.S. citizens and permanent residents	Temporary visa holders	All postdocs	U.S. citizens and permanent residents	Temporary visa holders	All postdocs	U.S. citizens and permanent residents	Temporary visa holders	All postdocs	U.S. citizens and permanent residents	Temporary visa holders
All FFRDCs	2,212	1,186	1,026	1,820	654	1,120	2,147	774	1,373	2,235	899	1,336	2,449	979	1,460
University-administered FFRDCs	977	594	383	788	238	550	820	226	594	825	235	590	1,022	332	690
Nonprofit-administered FFRDCs	450	180	270	403	132	271	373	84	289	443	147	296	557	193	364
Industry-administered FFRDCs	785	412	373	629	330	299	954	464	490	967	369	274	870	454	406

NA = not available.

FFRDC = federally funded research and development center.

NOTE: Interpret large changes between years with caution; numbers have been verified, but changes may be the result of programmatic changes at the institutional level that were not tracked. Data were not collected in 2008.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2004–07, 2009.

TABLE D-5. Postdoctorates, support by citizenship: 2006–07, 2009

Source of support	2006			2007			2009		
	All postdocs	U.S. citizens and permanent residents	Temporary visa holders	All postdocs	U.S. citizens and permanent residents	Temporary visa holders	All postdocs	U.S. citizens and permanent residents	Temporary visa holders
Federal	1,641	623	1,018	2,030	837	1,193	2,258	770	1,124
Nonfederal	506	151	355	205	62	143	181	52	42

NA = not available.

FFRDC = federally funded research and development center.

NOTES: Interpret large changes between years with caution; numbers have been verified, but changes may be the result of programmatic changes at the institution level that were not tracked. Data were not collected in 2008.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2006–07, 2009.

TABLE D-6. Postdoctorates, sex by citizenship: 2004–07, 2009

Sex	2004			2005			2006			2007			2009		
	U.S. citizens and permanent residents		Temporary visa holders	U.S. citizens and permanent residents		Temporary visa holders	U.S. citizens and permanent residents		Temporary visa holders	U.S. citizens and permanent residents		Temporary visa holders	U.S. citizens and permanent residents		Temporary visa holders
	All postdocs			All postdocs			All postdocs			All postdocs			All postdocs		
Male	1,767	907	860	1,430	503	927	1,259	383	876	1,461	555	906	1,679	663	1,016
Female	445	279	166	390	197	193	414	149	265	450	196	254	513	236	277

NA = not available.

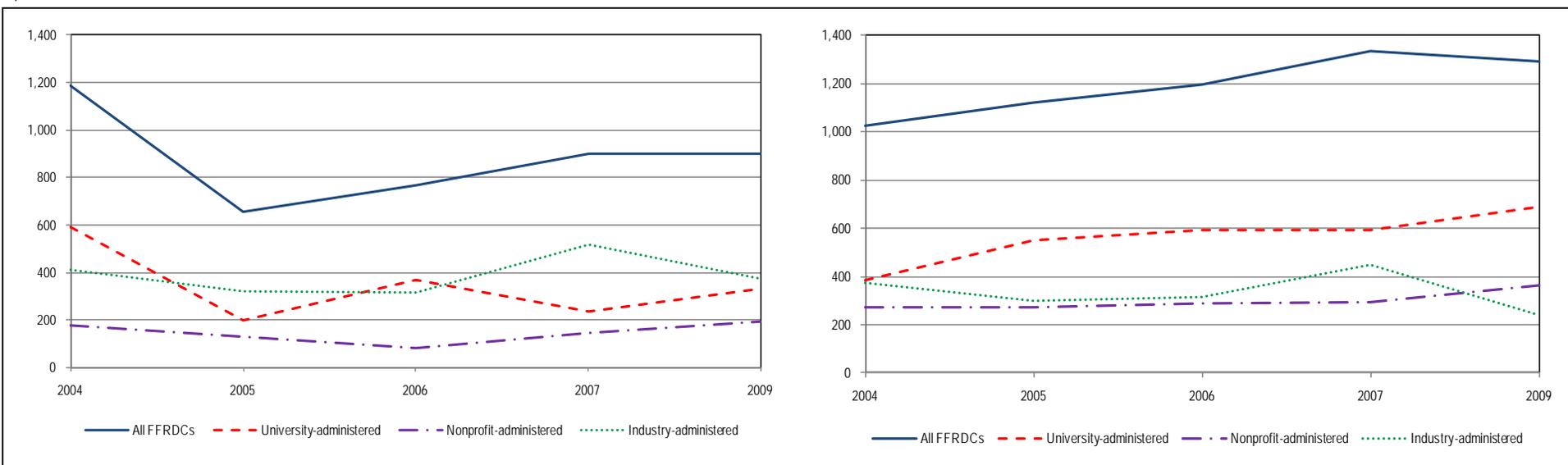
FFRDC = federally funded research and development center.

NOTES: Interpret large changes between years with caution; numbers have been verified, but changes may be the result of programmatic changes at the institution level that were not tracked. Data were not collected in 2008.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2004–07, 2009.

FIGURE 1a. Postdoctorates at federally funded research and development centers: U.S. citizens and permanent residents, 2004–07, 2009

FIGURE 1b. Postdoctorates at federally funded research and development centers: Temporary visa holders, 2004–07, 2009



FFRDC = Federally funded research and development center.

NOTE: Data were not collected in 2008.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Postdoctorates at Federally Funded Research and Development Centers, FY 2004–07, 2009.