Association for Institutional Research

2012 National Data Institute:

Using Federal Data to Support Research on Science, Engineering, and Postsecondary Education

Application Guidelines

Application Deadline:
March 21, 2012
11:59 PM (EDT)

Overview

With support from the National Science Foundation (NSF) and the National Center for Education Statistics (NCES), the Association for Institutional Research (AIR) operates the National Data Institute: Using Federal Data to Support Research on Science, Engineering, and Postsecondary Education. The Institute is an intensive introduction to NSF and NCES datasets and research methodologies using large-scale national data sources.

The Institute is open to:

- Institutional research professionals who wish to increase their knowledge of national datasets and skills for using such data in their IR role on campus
- Faculty and graduate students with research interests in science, engineering, or postsecondary education
- Staff from state and national associations with interests in science, engineering, or postsecondary education data sources
- Postsecondary education researchers from non-U.S. institutions (limited number of spaces available)*

Note: All participants must have basic knowledge of statistical methods and experience using statistical software packages (e.g., SPSS, SAS, STATA).

The Institute aims to achieve four major objectives:

- Stimulate interest in using national data to address research questions in institutional research, science and engineering, and postsecondary education
- Instruct participants in the methods of using national data to conduct analyses, with primary emphasis on the new web-based data analysis systems developed by NSF and NCES
- Enhance understanding about methodological and technological issues relevant to large-scale national data collection
- Foster collaboration between participants and NSF and NCES staff to improve future data collection and analysis

Fellowship selection is based on a brief application. The deadline for applications is March 21, 2012. Selections will be announced on April 19, 2012.

The application components are outlined below.

1. Contact information
2. Statement of interest and applicant's learning goals
3. Statement of current research interests
4. Self-assessment of statistical and research skills, and knowledge of NSF/NCES datasets
5. Abbreviated curriculum vita
6. Letter of support (required for graduate students not working full-time)

Applications must be submitted online. Assistance is available from the National Data Institute Team at NationalDataInstitute@airweb.org or 850-385-4155 x203.

*Funding from NSF and NCES is only available for individuals from U.S. postsecondary education institutions. In addition, one or two individuals from non-U.S. institutions may be accepted each year contingent on availability of AIR funding. The application is the same for individuals from U.S. and non-U.S. institutions.

2012 National Data Institute

The Institute will be held July 8 – 14, 2012 at the Westin Alexandria in Alexandria, Virginia. Hotel, meals, and instructional costs are provided for selected Fellows. U.S. travel is covered in full; international travel is covered up to $700.

Overview of the Institute schedule:

- Fellows will devote the equivalent of one day to background reading and preparation prior to attending the Institute
- Sunday, July 8, Travel to Washington D.C. (a.m.); Institute registration, opening session, and dinner (p.m.)
- Monday, July 9 – Friday, July 13 (8:00 a.m. to 5:00 p.m.)
- Saturday, July 14 (8:00 a.m. to 12:00 noon) and travel home (p.m.)

The Institute includes lectures, demonstrations, and hands-on instruction. A laptop computer with wireless internet capabilities is required. Topics and activities include:

- Overview of NSF databases
- Overview of NCES databases
- Demonstrations and exercises using specific datasets
- Technical issues using national datasets and tools
- Data confidentiality
- Applying for a restricted use license
- Day trip to either NSF or NCES
- Data Policy Seminars from leading national policy experts
- Opportunities to network and collaborate with colleagues

Application Process

STEP 1: Individuals are encouraged to begin the application process as early as February 1, 2012 by providing initial contact information as the first step: name, email address, physical address, and institution affiliation. Providing this information assures that updates and deadline reminders will be sent to individuals via the email address provided. Providing contact information does not commit an individual to submit an application.

STEP 2: Complete the online application. **It is recommended that applicants write each section using word processing software and when finalized, cut and paste the text into the online application.**

Note: Applicants can save an application and return later to add and/or edit information until the application is finalized or the application system closes on March 21, 2012.

STEP 3: Submit the online application. When an application is successfully submitted, a confirmation message will be sent to the applicant. It is the applicant's responsibility to submit the final application and save the confirmation notice as receipt of a successful submission.

For questions and assistance please contact the National Data Institute Team at NationalDataInstitute@airweb.org or 850-385-4155 x203.

An application may be withdrawn at any time before a final funding decision is made. A request for withdrawal must be sent to NationalDataInstitute@airweb.org. Confirmation of the withdrawal request will be sent to the applicant.

Selection Process and Award Announcement

Applications are reviewed by AIR and a panel of national experts using the rating rubric on page 5. Selection notifications will be announced on April 19, 2012. The names and institutional affiliations of fellowship recipients are part of the public record that is provided to NSF and NCES and listed on the AIR website.

Information for Funded Fellowships

Coordination of Travel to Institute

Detailed instructions for booking a flight and making other travel arrangements will be provided to each selected Fellow.

Preparation for Institute

Electronic reading documents will be sent to Fellows in advance of the Institute. Fellows will need to devote the equivalent of one day to background reading and preparation prior to attending the Institute. Fellows will also be required to participate in an online survey prior to the Institute.

National Data Institute Application Guidelines

A complete application is comprised of:

1. **Contact Information**
   Name, physical address, email address, and institutional affiliation.

2. **Statement of Interest and Learning Goals** (limit 300 words)
   Describe your interest in, and learning goals for, attending the Institute. Please be specific about the data sources of greatest interest to you. (For a list of NSF/NCES datasets, see the Appendix).

3. **Statement of Current Research Interests for Publication, Dissertation, or Decision-support** (limit 500 words)
   Describe your current research interest or an IR challenge that you would like to address using the national datasets and how you anticipate this may advance higher education research or influence/inform decision-making on your campus.

4. **Self-Assessment of Statistical and Research Skills, and Knowledge of NSF/NCES Datasets** (limit 300 words)
   Explain your level of skill in statistics and statistical software packages, research methods, and current knowledge of NSF/NCES datasets. Graduate students may wish to explain how the Institute fits into their academic plan for acquiring such skills.

5. **Abbreviated Curriculum Vita** (no more than 3 pages)
   A CV must be submitted in PDF format with the fellowship application. Please include your education, publications (if any), work experience, and other professional accomplishments.

6. **Letter of Support** (required for graduate students not working full-time)
   A signed letter of support from your department chair or dissertation advisor must be submitted in PDF format with the application. Please instruct your department chair or dissertation advisor to indicate if attendance at the Institute will count for academic credit or fulfill a requirement for a certificate or degree program

National Data Institute Rating Rubric

Reviewers use the criteria below to rate applications.

Section 1: Rating of the Application **Score**

To what extent does the applicant show a compelling interest in attending the Institute?

Very Low	Low	Acceptable	High	Very High
1	2	3	4	5

To what degree has the applicant described clear and achievable learning goals for Institute attendance?

Very Low	Low	Acceptable	High	Very High
1	2	3	4	5

To what extent are the learning goals appropriate for the Institute?

Very Low	Low	Acceptable	High	Very High
1	2	3	4	5

To what degree has the applicant described a research interest or IR challenge related to the use of NSF/NCES datasets?

Very Low	Low	Acceptable	High	Very High
1	2	3	4	5

What is the likelihood that the applicant's learning goals will advance higher education research or influence their institution's decision making?

Very Low	Low	Acceptable	High	Very High
1	2	3	4	5

To what extent does the applicant possess the data skills and overall capabilities to fully participate in the Institute?

Very Low	Low	Acceptable	High	Very High
1	2	3	4	5

Total Score:

Section 2. Award Recommendation

- ☐ Award
- ☐ Consider Awarding (if space available)
- ☐ Do Not Award

Appendix A

NSF/NCES DATASETS

NSF DATASETS
Business R&D and Innovation Survey (BRDIS as of 2008, formerly SIRD)
Higher Education Research and Development (HERD as of 2010, formerly Academic R&D) Survey
National Survey of College Graduates (NSCG)
National Survey of Recent College Graduates (NSRCG)
Scientists and Engineers Statistical Data System (SESTAT)
Survey of Doctorate Recipients (SDR)
Survey of Earned Doctorates (SED)
Survey of Federal Funds for Research and Development
Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions
Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS)
Survey of Industrial Research and Development (SIRD, through 2007)
Survey of Research and Development Expenditures at Federally Funded R&D Centers
Survey of Research and Development Expenditures at Universities and Colleges (Academic R&D, through 2009)
Survey of Science and Engineering Research Facilities
Survey of State Research and Development Expenditures

NCES DATASETS
Baccalaureate and Beyond Longitudinal Study (B&B)
Beginning Postsecondary Student Longitudinal Study (BPS)
Educational Longitudinal Study of 2002 (ELS: 2002)
IPEDS 12-Month Enrollment (E12)
IPEDS Completions (C)
IPEDS Fall Enrollment (EF)
IPEDS Finance (F)
IPEDS Graduation Rates (GRS)
IPEDS 200% Graduation Rates (GR200)
IPEDS Human Resources (HR)
IPEDS Institutional Characteristics (IC)
IPEDS Student Financial Aid (SFA)
National Postsecondary Student Aid Study (NPSAS)