

National Science Foundation

The Office of Management and Budget (OMB) issued government-wide guidelines under section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Public Law 106-554) to ensure and maximize the quality, objectivity, utility and integrity of information disseminated by Federal agencies. OMB's final guidelines were published in the Federal Register at 66 FR 49718 on Friday, September 28, 2001, and updated at 67 FR 369 on Thursday, January 3, 2002. A supplemental version of the guidelines was published in the Federal Register at 67 FR 8452 on February 22, 2002. Each Federal agency is responsible for issuing its own section 515 guidelines. As a result, the National Science Foundation has developed corresponding information quality guidelines.

What is the Scope of these Guidelines?

These guidelines apply to certain information disseminated by NSF on or after October 1, 2002, regardless of when the information was first disseminated. Consistent with the intent of OMB's guidelines, NSF's guidelines focus primarily on the dissemination of substantive information (reports, studies, and summaries) rather than information pertaining to basic agency operations.

Examples of the types of NSF information both subject to and not subject to these guidelines are set forth below.

What information IS subject to the Information Quality Guidelines?

Information that IS subject to the Information Quality Guidelines includes:

- Statistical information produced and disseminated by the agency.
- Studies and summaries prepared for public dissemination to inform the public about the impact of National Science Foundation programs.
- Studies, reports, and summaries prepared for use in formulating broad program policy, or for presenting and explaining program or policy initiatives, and disseminated by the NSF through its web site or other means.

What information is NOT subject to the Information Quality Guidelines?

Information that is NOT subject to the Information Quality Guidelines includes:

- Distribution limited to government employees, or agency contractors or grantees.
- Intra- or inter-agency use or sharing of government information.
- Responses to requests for agency records under the Freedom of Information Act, the Privacy Act, the Federal Advisory Committee Act or other similar laws.

- Distribution limited to correspondence with individuals or persons regardless of the media used such as electronic mail or fax.
- Press releases.
- Archival records.
- Public filings, including material filed by NSF in public docket.
- Information relating to subpoenas, or adjudicative processes including the findings and determinations that the agency makes in the course of adjudications involving specific parties. For purposes of these guidelines these processes include, but are not limited to:
 1. Court litigation, including briefs and attachments or other information submitted to a court;
 2. Administrative enforcement proceedings;
 3. Civil rights and personnel complaints and reviews;
 4. Debarment and suspension matters;
 5. Merit System Protection Board matters.
- Information pertaining to basic agency operations, including program publications (such as pamphlets and notices) that merely describe and explain programs and how to apply for grants.
- Procedural, operational, or policy manuals, and management information produced for the internal management and operations of NSF, and not primarily for public dissemination.
- Views or opinions, where the presenter makes clear that what is being offered is someone's opinion rather than fact or NSF's views.
- Research data, findings, reports and other materials published or otherwise distributed by employees or by agency contractors or grantees that are clearly identified as not representing NSF views. NSF grantees are wholly responsible for conducting their project activities and preparing the results for publication or other distribution. NSF promotes data sharing by its grantees through its data sharing policy and by data archiving by its grantees. NSF does not create, endorse, or approve such data or research materials, nor does the agency assume responsibility for their accuracy. NSF's encouragement of data sharing and archiving helps to ensure that researchers and the public have quicker and easier access to data and research materials.
- Hyperlinks to information that others disseminate, as well as paper-based information from other sources referenced, but not approved or endorsed by NSF.
- Information presented to Congress as part of legislative or oversight processes, such as testimony of NSF officials, and information or drafting assistance provided to Congress in connection with proposed or pending legislation that is not simultaneously disseminated to the public.

How can I correct information that is subject to the Information Quality Guidelines?

If you want to correct information that is subject to these Information Quality Guidelines, please follow the procedure to seek correction of information disseminated by the National Science Foundation.

**Procedure to Seek Correction of Information Disseminated
by the National Science Foundation
under Section 515 of Public Law 106-554**

Background

In accordance with Section 515 of Public Law 106-554, codified at 44 U.S.C. § 3516, the National Science Foundation (NSF) has developed a procedure to allow affected persons to seek correction of information maintained and disseminated by NSF that does not comply with OMB or agency guidelines. To seek a correction under section 515 of information disseminated by the National Science Foundation, individuals must follow the procedure described below.

**Information
Required**

State that your request for correction of information is submitted under Section 515 of Public Law 106-554

Requestor Contact Information

Include your name, your organizational affiliation, if any, and a mailing address, fax number, e-mail address, or telephone number. This information is needed to respond to your request and initiate follow-up contact with you for additional information or clarification, if required.

Describe the Information You Believe Needs Correction

Clearly describe the information you believe is in error and should be corrected. Include the name of the report or data product, where the information is located (if found on our web pages, please provide the web page address (url)), the date of issuance, and a detailed description of the specific information to be corrected. Please provide the "corrected" information, as you believe it should read.

Description of How You are Affected by the Information

Clearly explain how you are adversely affected by the information you believe is in error and should be corrected.

Reasons for Believing Information Should be Corrected

Include specific reasons for believing the information should be corrected and specific recommendations for how it should be corrected. Requests for correction that are specific and provide evidence to support the need for correction will enable the National Science Foundation to provide a more satisfactory response. Supporting documentary evidence will help in the review of the request. Requesters bear the burden of proof in establishing the specific information fails to follow the OMB or agency guidelines.

National Science

Based on a review of the information provided, the National Science Foundation

**Foundation
Review of the
Request**

will determine whether a correction is warranted, and, if so, what action to take. Any corrective action will be determined by the nature and timeliness of the information involved and such factors as the significance the correction may have on the current or future use of the information.

**National Science
Foundation
Response**

The National Science Foundation will respond to the requestor by letter, e-mail, or fax, as appropriate. The response will normally explain the findings of the review and the actions the National Science Foundation will take in response. NSF will respond to requests for correction of information within thirty working days of receipt. If the request requires more than thirty working days to resolve, the National Science Foundation will inform the requestor that more time is required and indicate the reason why and provide an estimated decision date.

NSF may reject claims made in bad faith, or without justification. The Foundation need not respond substantively to such requests, nor to frivolous, repetitive, or stale requests, nor to requests not covered by these guidelines, or from persons who fail to establish that they are affected by the subject information.

**Right to Appeal
Decision**

If the requester does not agree with the agency's decision, the requester may file an appeal with the NSF Chief Information Officer (CIO), 4201 Wilson Boulevard, Room 305, Arlington, VA 22230; Fax: (703) 292-9084; or e-mail requesting reconsideration within NSF.

An appeal need not be in any particular format, but it must be in writing, and must be received by the CIO within thirty days of the date of the agency's initial decision on the request. Clearly mark your appeal as a "Section 515 Information Quality " appeal to facilitate receipt and processing of your appeal. Your appeal must include a copy of your initial request and the NSF response, together with any written arguments and documentation to support your appeal.

The CIO may handle the appeal personally or may designate another NSF official who had no part in the initial decision to do so. As used here, "CIO" includes such a designated official. If the agency believes other agencies may have an interest in the resolution of an administrative appeal, the CIO will consult with those agencies about their possible interest.

The CIO will normally make a decision on an appeal within thirty working days of its timely receipt by the CIO. If the CIO cannot provide a decision within thirty working days, the CIO will send the requester a written explanation of the need for more time, and indicating the date when a decision can be expected.

Contact point

Request for correction of information under Section 515 of Public Law 106-554 must be in writing and sent to the National Science Foundation by mail, fax, e-mail or online to:

Section 515 Information Quality Officer
4201 Wilson Boulevard, Room 305
Arlington, VA 22230
Fax: (703) 292-9084;
e-mail: infoqual515@nsf.gov
online at <http://www.nsf.gov/home/pubinfo/infoqual.htm>

How can I correct information that is NOT subject to the Information Quality Guidelines?

If the information you want to correct is not covered by these guidelines, you may not use the correction procedure provided here since it does not apply to such information. You may contact the responsible NSF office directly. Nothing herein requires that office to take any corrective action; the office may take whatever action it deems appropriate. For possible amendment of records about you as an individual that are contained in a NSF Privacy Act system of records see 45 CFR 613.4.

NSF's Information Quality Guidelines for Section 515

The National Science Foundation (NSF) is an independent U.S. government agency responsible for advancing science and engineering in the United States across a broad and expanding frontier. NSF does not operate laboratories, but instead makes merit-based grants and cooperative agreements and provides other forms of support to educators and researchers in all fifty states and in the U.S. territories. NSF evaluates proposals for research and education projects using two criteria: the intellectual merit of the proposed activity and the broader impacts of the activity on society.

The National Science Foundation funds research and education in most fields of science and engineering, and in science and engineering education. Awardees are wholly responsible for conducting their project activities and preparing the results for publication. The Foundation does not assume responsibility for such findings or their interpretation.

NSF provides information to the public about the grants and proposal process, past and current results of NSF programs, the projected scope and impact of NSF programs in the future, and the effect of proposed changes to the nation's research, engineering and science education endeavors. NSF also collects statistical information on various aspects of scientists and engineers and research and development activities. Government planners and policymakers, academic institutions, researchers, educators and others use NSF's information products.

Information released by NSF is collected from several sources including but not limited to researchers, grantees, Committees of Visitors, Advisory Committees and statistical data collections. NSF is authorized and directed to initiate and support basic scientific research and research fundamental to the science and engineering process, as such scientific data are tested for plausibility as a part of the external assessment process. The NSF administrative data collection systems are regularly subject to internal and external review processes and are periodically updated and refined. The guidelines below describe procedures that NSF employs to assure the quality of its information products, including their utility, objectivity, integrity, transparency, and reproducibility.

Utility

Utility involves the usefulness of the information to its intended users. Utility is achieved by staying informed of both internal and external information needs and by developing new data or information products where appropriate.

NSF keeps abreast of information needs with respect to the analysis of NSF programs by conducting internal analyses of information requirements, convening and attending conferences, working with advisory committees and committees of visitors, and sponsoring outreach activities. To ensure the highest quality in processing and recommending proposals for award, qualified external experts review each program every three years. Committees of visitors report on the integrity and efficiency of the processes for proposal review and the quality of results of NSF's programs. Directorate advisory committees review internal self-assessments, reports, external evaluations and annual

performance reports. NSF staff review and integrate recommendations into NSF information products.

NSF's ongoing publication series and other information products are reviewed on a regular basis to ensure that they remain relevant and address current information needs. Based on internal product reviews, consultation with users, and in response to changing needs and emphases, content of ongoing information products is changed, new products are introduced and others discontinued.

NSF prepares special reports and topical studies that address emerging information needs stemming from new or emerging areas of science and engineering, or proposed policy changes. Information is available on all proposals and awards along with collaborative projects, and international cooperative research and educational efforts.

Objectivity

Objectivity involves a focus on ensuring that information is accurate, reliable and unbiased and that information products are presented in an accurate, clear, complete and unbiased manner. Objectivity is achieved by presenting the information in the proper context, identifying the sources of the information (to the extent possible, consistent with confidentiality protections), using reliable data and sound analytical techniques, and preparing information products that are carefully reviewed.

- **Use reliable data sources**

Much of the information disseminated by NSF is based on National Science Foundation administrative data files. These files contain information used to manage NSF programs. In support of these activities, NSF employs an outside contractor to review NSF's quality control methodology and processes to confirm the validity of its review processes. NSF administrative data are also covered under NSF's Financial Management Systems and conform to the high standards of financial accountability demanded by these systems. These financial management systems are mandated by the Office of Management and Budget and are designed to provide complete, reliable, consistent, timely and useful management information to enable agencies to carry out their fiduciary responsibilities.

The Division of Science Resources Statistics (SRS) fulfills the legislative mandate of the National Science Foundation Act to provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources. In support of this mandate, SRS designs, supports and directs periodic surveys as well as a variety of data collections and research projects.

NSF-SRS sponsored surveys are contracted and conducted using methodologies that are consistent with generally accepted professional standards for all aspects of survey development, including sample frame development, statistical design of the survey sample, questionnaire design and testing, data collection, sampling and coverage errors, non-response analysis, imputation of missing data, weighting and variance estimation. NSF

surveys follow guidelines and policies set forth in the Paperwork Reduction Act and other regulations related to the conduct of government surveys.

As part of the clearinghouse function, NSF also prepares information products using data produced or maintained by other federal agencies, international governments and organizations, survey establishments and private and non-profit organizations. NSF staff producing statistical publications are knowledgeable about the content, structure and limitations of the data files. All external data are reviewed for relevance and are properly sourced and cited. Known limitations of the external data are clearly stated.

- **Preparation of statistical data products**

Estimates in statistical data products are prepared from representative random samples from reliable data sources. Procedures for sampling and linking data files are prepared using accepted statistical methods.

Output is reviewed by knowledgeable staff within the originating component and across components as appropriate. Estimates are compared to prior year estimates and estimates from other sources to ensure consistency, reasonableness and reliability.

All data sources used in producing statistical data products are identified, either for the publication as a whole or for individual tables. Documentation includes specification of variables used, definitions of variables when appropriate, sampling errors and disclosure avoidance rules or techniques.

- **Preparation of analytical reports and policy studies**

Analytic reports and policy studies may be based on a wide array of data sources using a variety of analytical and statistical techniques. All data sources are clearly sourced and cited. When analyses are based on estimates, the methodology used to produce the estimates is identified.

Technically qualified staff reviews all analytic reports and policy studies to ensure that analysis is valid, complete, unbiased, objective and relevant. Some analytic reports and policy studies are also reviewed by external subject matter experts who provide additional perspective and expertise.

- **Editorial review for accuracy and clarity of information in publications**

All statistical products go through a thorough reports review process before publication. All information products are edited and proofread before release to ensure clarity and coherence of the final report. Text is edited to ensure that the report is easy to read and grammatically correct, thoughts and arguments flow logically, and information is worded concisely and lucidly. Tables and charts are edited to ensure that they clearly and accurately illustrate and support points made in the text, and include concise but descriptive titles. Tables and charts clearly indicate the unit of measure and the universe being examined and all internal labels (column heads, row stubs, and panel headings)

should accurately describe the information they contain. All changes made to a manuscript during the editing process are checked by a proofreader and reviewed and approved by the author.

- **Policy for correcting errors**

If an error is detected before an initial mailing, NSF includes an errata notice with the mailing. If the mailing has been sent out, NSF issues an errata sheet with all subsequent publications, and as appropriate, sends the errata sheet to all those who received the initial notice. Errata notices are put on the Web version to inform both new and repeat site visitors about the mistake, and the corrected version of the document is posted on the Web.

Integrity

Integrity refers to the security of information from unauthorized access or revision to ensure that the information is not compromised through corruption or falsification. To ensure the integrity of its administrative information, NSF has in place rigorous controls that have been identified as representing sound security practices.

NSF is highly protective of the confidentiality of information it holds through its policies and practices. NSF has in place programs and policies for securing NSF resources as required by the Government Information Security Reform Act (P.L. 106-398, Title X, Subtitle G). These security procedures address all major components of information security and apply to all NSF operating components.

NSF is subject to statutory requirements to protect the sensitive information it gathers and maintains on individuals. These requirements are contained in the following documents:

- Privacy Act of 1974
- Trade Secrets Act
- Computer Security Act of 1987
- Office of Management and Budget (OMB) Circulars A-123, A-127 and A-130
- Government information Security Reform Act
- Federal Managers' Financial Integrity Act (FMFIA) of 1982

Transparency and Reproducibility

If an agency is responsible for disseminating "influential" information, guidelines for dissemination should include a high degree of transparency about data and methods to facilitate its reproducibility by qualified third parties. Information is considered influential if it will have a substantial impact on important public policies or important private sector decisions. NSF's information that is subject to section 515 should be highly transparent and capable of being reproduced by qualified persons.

NSF's statistical guidelines call for identification and documentation of all internal data sources used in producing estimates and projections and clear descriptions of methods

used to produce estimates and to develop model projections to make its results as transparent as possible. Data released as part of the clearinghouse function are clearly sources and cited.

Many estimates and projections included in NSF information products are not directly reproducible by the public because the underlying data sets used to produce them are either confidential or proprietary. However, some statistical publications are based on publicly available data and are fully reproducible by the public.

In agreement with the U.S. Federal Statistical organizations quality guidelines issued in the Federal Register on May 1, 2002, the NSF's statistical guidelines emphasize the Division of Science Resources Statistics commitment to quality and professional principles of practice in the following manner:

- Use of modern statistical and survey practices and theory in all technical work.
- Use of appropriate internal and external expertise in areas relevant to our mission.
- Ongoing quality assurance programs to continuously improve.
- Documentation designed for users to assess the suitability of the information for their needs.
- Proper due diligence for fitness of use of external data and information with clear notation of any limitations of the data or information.
- Review of information produces and documentation by technically qualified staff (or independent experts when appropriate.)

NSF's statistical guidelines will be available at <http://www.nsf.gov/sbe/srs/stat.htm> beginning October 1, 2002.

NSF also achieves transparency through wide dissemination of its information. NSF policy is to make the fullest possible disclosure of information, subject to restrictions imposed by the Freedom of Information Act (FOIA) and Privacy Act, to any person who requests information, without unnecessary expense or delay. Most NSF documents, reports and other data products are available to the public in both printed and electronic documents. They are announced on the NSF web site and most electronic versions can be accessed and downloaded directly from the NSF web site.

The National Science Foundation is committed to making every document on its web site accessible to the widest possible audience. NSF works to ensure, to the extent feasible, that documents are accessible to persons using special screen reading software and hardware. NSF's Office of Equal Opportunity Programs (OEOP) is responsible for coordinating the agency's compliance with sections 501 and 504 of the Rehabilitation Act of 1973, as amended.

These guidelines are suggestions, recommendations, and policy views of NSF. They are not, were never intended to be, and should not be construed as, legally binding rules, regulations, or mandates. These guidelines are intended only to improve the internal management of NSF and to inform NSF staff and the public of the processes NSF uses in addressing data quality issues. They create no right or benefit, substantive or procedural,

enforceable at law or equity, by any party against the United States, its agencies, including NSF, officers, employees, or any person.