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#### a. 2 CFR Chapter VVX

<i>Part Number</i>	<i>Subject</i>	<i>AAG</i>
2520	Nonprocurement Debarment and Suspension	Chapter VII

#### b. 45 CFR Chapter VI

602	Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments	Entire Guide
605, 611, 617, 618	Nondiscrimination in Federally Assisted Programs	VI.A
612, 613, 614	Freedom of Information, Privacy, and Government in the Sunshine Acts	VI.I.2.b
630	Drug Free Workplace	
650	Patents	VI.D.1
660	Intergovernmental Review of NSF Programs	VI.H
689	Research Misconduct	VII.C
690	Protection of Human Subjects	VI.B.1

### 4. Other Federal Regulations

<i>Title</i>	<i>Code of Federal Regulations</i>	<i>AAG</i>
Contract Cost Principles and Procedures (Federal Acquisition Regulations)	48 CFR §31	V.A
Controlling Paperwork Burdens on the Public Disposition (Government-owned Federal Information Processing Equipment)	5 CFR §1320 41 CFR §201.23	VI.I.1 IV.E.5.f
Equal Employment Opportunity	41 CFR §60	VI.A.6
Metric Usage in Federal Government Programs	3 CFR, 1991 comp	VI.M.3
Principles for Determining Costs Applicable to Research and Development Under Grants and Contracts with Hospitals	45 CFR, Part 74, Appendix E	V.A.1
Withdrawal of Cash from the Treasury for Advances Under Federal Grant and Other Programs	31 CFR, 205	III.C
Protection of Historic and Cultural Properties	36 CFR §800	VI.K
Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts, and Cooperative Agreements	37 CFR §§401 et seq.	VI.D.1
Rules and Procedures for Funds Transfers	31 CFR §205	Chapter III
Utilization of Personal Property	41 CFR §101.43	IV.E.3

### 5. Office of Management and Budget Circulars

<i>NumberShort</i>	<i>Title</i>	<i>AAG</i>
A-21	Cost Principles for Educational Institutions	V.A.1
A-87	Cost Principles for State and Local Governments	V.A.1
A-110	Uniform Administrative Requirements for Grants and Other Agreements to Non-Profit Organizations	Entire Guide
A-122	Cost Principles for Non-Profit Organizations	V.A.1
A-133	Audits of States, Local Governments and Non-Profit Organizations	II.F

## **Chapter II: Grant Administration**

### **A. Monitoring Project Performance**

#### **1. Grantee Responsibilities**

a. A grantee has full responsibility for the conduct of the project or activity supported under an NSF grant and for the results achieved. The grantee should monitor the performance of the project to assure adherence to performance goals, time schedules or other requirements as appropriate to the project or the terms of the grant. In order to carry out these responsibilities, each grantee organization shall agree to comply with the applicable Federal requirements for grants and to the prudent management of all expenditures and actions affecting the grant. Documentation for each expenditure or action affecting the grant shall reflect appropriate organizational reviews or approvals, which should be made in advance of the action. Organizational reviews are intended to help assure that expenditures are allowable, necessary and reasonable for the conduct of the project, and that the proposed action:

- (i) is consistent with grant terms and conditions;
- (ii) is consistent with NSF and grantee policies;
- (iii) represents effective utilization of resources; and
- (iv) does not constitute a change in objective or scope.

b. Notwithstanding these responsibilities, NSF continues to encourage communication between NSF program officers and PI/PDs on the progress of projects supported by NSF as well as on project changes.

c. NSF, through authorized representatives, has the right, at all reasonable times, to make site visits to review project accomplishments, grantee management control systems and administration and management of the grant and to provide technical assistance as may be required. If any site visit is made by the Foundation on the premises of the grantee or a subawardee under a grant, the grantee shall provide and shall require its subawardees to provide all reasonable facilities and assistance for the safety and convenience of the NSF representatives.

#### **2. Grantee Notifications to NSF and Requests for NSF Approval**

a. AAG Exhibit II-1 provides a listing of grantee notifications to and requests for approval from NSF. While the listing is not intended to be all-inclusive, it does highlight the most frequent areas where specific notifications and requests for approval are called for.

b. All notifications and requests contained in AAG Exhibit II-1, and described below, must be submitted electronically via the NSF FastLane System.

### **B. Changes in Project Direction or Management**

#### **1. Changes in Objectives, Scope or Methodology**

##### **a. Changes in Objectives or Scope**

Neither the phenomena under study nor the objectives of the project stated in the proposal or agreed modifications thereto should be changed without prior NSF approval. Such changes should be proposed to the cognizant NSF Program Officer by the PI/PD. If approved by NSF, the Grants and Agreements Officer will amend the grant.

Prior NSF approval also is required for any change to the Facilities, Equipment, and Other Resources section of the approved proposal that would constitute a change in objective or scope (see GPG Chapter II.C.2.i for further information).

**b. Changes in Methodology**

NSF believes that the PI/PD and co-PI/co-PD, operating within the established policies of the grantee organization, should feel free to pursue interesting and important leads that may arise during the conduct of a research (or other grant-supported) project or to adopt an alternative approach which appears to be a more promising means of achieving the objectives of the project. Significant changes in methods or procedures should be reported to appropriate grantee official(s) and the cognizant NSF Program Officer.

**c. Significant Changes, Delays or Events of Unusual Interest**

(i) In the event there are problems, delays or adverse conditions that will materially affect the ability to attain the objectives of the project or to meet such time schedules as may have been proposed, appropriate grantee officials should notify the NSF Program Officer.

(ii) NSF should be informed of any events of unusual interest that occur during the course of the project. Reports, communications or photographs should be submitted via the interim report capability in FastLane.

**2. Changes in PI/PD, co-PI/co-PD or Person-Months Devoted to the Project**

**a. Background**

The NSF decision to support or not to support a proposed project is based to a considerable extent upon its evaluation of the proposed PI/PD and any identified co-PI/co-PD's knowledge of the field of study and his/her capabilities to conduct the project in an efficient and productive manner. This is reflected in the NSF criteria for the selection of projects for funding (see GPG Chapter III). The named PI/PD (and co-PI/co-PD) should be continuously responsible for the conduct of the project and be closely involved with the effort.

**b. Basic Requirements**

If the PI/PD or co-PI/co-PD plans to, or becomes aware that he/she will: (i) devote substantially less effort to the project than anticipated in the approved proposal; (ii) sever his/her connection with the grantee organization; or (iii) otherwise relinquish active direction of the project, he/she shall advise the appropriate official at the grantee organization, who shall initiate action appropriate to the situation under the guidelines that follow.

**c. Short-Term Absence of PI/PD or co-PI/co-PD**

If the PI/PD or co-PI/co-PD will be absent from the project for short periods of up to three months, he/she shall notify appropriate officials of the grantee organization. The grantee shall then notify the NSF Program Officer of arrangements for conduct of the project during the PI/PD's or co-PI/co-PD's temporary absence.

**d. Long-Term Absence of PI/PD or co-PI/co-PD**

(i) In the event the PI/PD or co-PI/co-PD will be away from the project for a period greater than three months (e.g. sabbatical leave) but intends to return, arrangements for oversight of the project shall be sent electronically to NSF for approval. This information must be provided at least 30 days before departure or as soon as practicable after the prospective absence is known. The NSF Program Officer will provide written approval to the grantee if the arrangements are satisfactory, but no formal amendment to the grant will be made.

(ii) If the arrangements are not satisfactory to NSF, the grant may be terminated as prescribed in AAG Chapter VII.A. If the PI/PD's or co-PI/co-PD's temporary activities might constitute a conflict of interest (e.g., working for a Federal agency), a substitute PI/PD or co-PI/co-PD shall be appointed as described in AAG Chapter II.B.2g.

**e. Change in Person-Months Devoted to the Project**

If the PI/PD or co-PI/co-PD will devote substantially less time to the project than anticipated in the proposal, (defined in the Research Terms and Conditions (RTC) and NSF Grant Conditions (GC-1) as a reduction of 25% or more in time) he/she should consult with appropriate officials of the grantee organization and with the NSF



Program Officer. If either determines that the reduction of effort will substantially impair the successful execution of the project, the Program Officer will consult the NSF Grants and Agreements Officer. The NSF Grants and Agreements Officer may:

- (i) request the grantee to nominate a replacement PI/PD or co-PI/co-PD acceptable to the NSF Program Officer;
- (ii) initiate the termination procedures described in AAG Chapter VII.A.; or
- (iii) negotiate an appropriate modification to the grant.

**f. Withdrawal of PI/PD or co-PI/co-PD**

In the event the PI/PD or co-PI/co-PD severs his/her connection with the grantee organization or otherwise relinquishes active direction of the project, the grantee, or equivalent, must notify the NSF Program Officer via the Notification and Request module in FastLane, and either:

- (i) initiate transfer of the grant as described in AAG Chapter II.B.2h.;
- (ii) nominate a substitute as described in AAG Chapter II.B.2g; or
- (iii) initiate grant closeout procedures through submission of final reports (AAG Chapter II.E.2. and AAG Chapter III.E.2).

**g. Substitute PI/PD or co-PI/co-PD**

In the event the grantee desires to continue the project with a substitute PI/PD or co-PI/co-PD, the appropriate officials at the grantee organization must advise the NSF Program Officer of the substitute PI/PD's or co-PI/co-PD's name, qualifications, and current and pending support for research from all sources. If approved by NSF, the Grants Officer will amend the grant. If not approved, NSF may take steps, pursuant to AAG Chapter VII.A to suspend or terminate the grant.

**h. Disposition of a Grant When a PI/PD Transfers from One Organization to Another Organization**

(i) Policy. When a PI/PD plans to leave an organization during the course of a grant, the organization has the prerogative to nominate a substitute PI/PD or request that the grant be terminated and closed out. In those cases where the PI/PD's original and new organizations agree, NSF will facilitate a transfer of the grant and the assignment of remaining unobligated funds to the PI/PD's new organization. This should normally be done with a tripartite agreement (involving NSF, the PI/PD's original organization and new organization), or by a subaward arrangement (in certain circumstances) between the PI/PD's original and new organizations, subject to NSF's consent. (See AAG Chapter II.B.3.)

(ii) Procedures. When a PI/PD plans to leave an organization during the course of a grant, the PI/PD or the Sponsored Projects Office, or equivalent, shall notify the NSF Program Office. If the project is to continue with the original organization, the NSF Program Officer should advise the grantee to nominate a substitute PI/PD (see AAG Chapter II.B.2g). If the project is to be continued at the PI/PD's new organization, and if NSF and both organizations agree, formal notification of the impending transfer can be electronically initiated by either the PI/PD or the PI/PD's organization. The most current Federal Cash Transaction Report must be posted to NSF's financial accounting system prior to submitting the PI/PD transfer. The amount transferred has to be equal to or less than the unobligated balance.

The request shall include a:

- (a) brief summary of progress to date;
- (b) description of work yet to be accomplished;

(c) completed on-line transfer request, including total estimated disbursements to date (transfer amount will be automatically calculated, based on the amount entered in total estimated disbursements). The original organization is responsible for including in the total estimated disbursements, any anticipated costs yet to be incurred against the original grant.

(d) detailed line item budget for the transfer amount and any outstanding continuing grant increments.

The original organization concurs with the transfer of the award by electronically forwarding the request to the new organization.

The new organization completes the request by providing a detailed budget for the transfer amount agreed to by both organizations. The new organization must electronically sign the request when submitted to NSF. Submission of the request constitutes agreement by the new organization to assume responsibility for completion of the project effort and to administer the grant (as originally awarded) from the transfer date to completion in accordance with any special terms and conditions and the applicable general terms and conditions that normally govern NSF grants made to the new organization. Special terms and conditions, as appropriate, cited in the original award will convey to the new grantee organization.

FastLane will assign at submission a proposal number. This proposal number will become the new grant number when the transfer is approved by an NSF Grants and Agreements Officer.

(iii) Fund Transfer. Upon receipt of the above material, NSF will review the request and, if approved, deduct the specified transfer amount from the original grant and re-establish it under a new grant number at the new organization. Award notification by the NSF Grants and Agreements Officer will constitute NSF approval of the grant transfer. The award notification also will specify the applicable basic terms and conditions that govern the grant (i.e., RTC, NSF GC-1, or other Terms and Conditions).

(iv) Upon transfer of the grant to the new organization, any monetary discrepancies must be resolved between the original and the new grantee. NSF will not intervene in any disputes between the two organizations regarding the transferred amount.

(v) Equipment Transfers. Equipment purchased with NSF funds for use in a specific project should remain available for use for the duration of the project. PI/PDs who are in the midst of projects that included funding for equipment and who will continue the project at a new organization with NSF support should be able to arrange with their original organization to have the equipment transferred with them. Shipping costs for such equipment may be charged to the original or transferred grant as an allowable cost. Budgets should not include funds to "buy" equipment that had been previously obtained with Federal funds.

(vi) Possible Alternatives to the Transfer Process. When the amount of time and funds remaining in a project are modest, and if both the original and new organizations are in agreement, the original organization may issue a subaward to the new organization for completion of the project. This and other possible alternatives should be discussed with the NSF Grants and Agreements Officer.

### **3. Contracting or Transferring the Project Effort (Subawards)**

a. Excluding the procurement of items such as commercially available supplies, materials, equipment or general support services allowable under the grant, no significant part of the research or substantive effort under an NSF grant may be contracted or otherwise transferred to another organization without prior NSF authorization. The intent to enter into such arrangements should be disclosed in the proposal submission.

b. If it becomes necessary to contract or otherwise transfer a significant part of the research or substantive effort after a grant has been made, the grantee shall submit, at a minimum:

(i) a clear description of the work to be performed;

- (ii) the basis for selection of the subawardee (except for collaborative/joint arrangements<sup>5</sup>); and
- (iii) a separate budget for each subaward.

The request must be submitted electronically, and NSF authorization will be indicated by an amendment to the grant signed by the Grants and Agreements Officer. The NSF grant conditions will identify which articles flow-down to subawardees.

c. Procurements under NSF grants are also subject to AAG Chapter V.C and OMB Circular A-110 Sections .40 through .48. (2 CFR §§215.40-48)

## **C. Changes in the Grant Budget**

### **1. OMB Directives**

Section .25 of OMB Circular A-110 (2 CFR §215.25) contains optional requirements regarding budgetary revisions. NSF elects NOT to impose the following requirements on its grantees:

- a. prior approval requirements for appropriate transfer between direct and indirect cost categories of the grant budget; and
- b. restrictions in transfers of funds among direct cost categories for grants in which the Federal share exceeds \$100,000.

### **2. Grant Changes and Approvals**

- a. If required in furtherance of the project, the grantee is authorized to transfer funds from one budget category to another for allowable expenditures. AAG Exhibit II-1, however, highlights certain budget changes that may require prior NSF approval.
- b. When a change requires NSF approval, the request must be submitted electronically via use of the Notification and Request module in FastLane. The request should clearly state which budget items, if any, are to be changed and by what amounts, and should explain the reasons for any changes.
- c. Whenever the amount of Federal funds authorized by an NSF grant is expected to exceed the requirements of the project, as outlined in the approved proposal, by more than \$5,000 or 5 percent of the grant amount, whichever is greater, the grantee will promptly notify the NSF Program Officer.

## **D. Cost Sharing**

The National Science Board issued a report entitled “*Investing in the Future: NSF Cost Sharing Policies for a Robust Federal Research Enterprise*” (NSB 09-20, August 3, 2009), which contained eight recommendations for NSF regarding cost sharing. In implementation of the Board’s recommendations, NSF’s revised guidance<sup>6</sup> (see GPG Chapter II.C.2.g(xi)) is as follows:

- Inclusion of voluntary committed cost sharing is prohibited.
- When mandatory cost sharing is included on Line M and accepted by NSF, the commitment of funds becomes legally binding and is subject to audit. Failure to provide the level of cost sharing required by the NSF solicitation and reflected in the approved award budget may result in termination of the NSF award, disallowance of award costs and/or refund of award funds to NSF by the awardee.

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<sup>5</sup> Collaborative/joint arrangements may include closely related and coordinated activities at another organization; a joint activity by several organizations or consortia; and group proposals from multiple organizations.

<sup>6</sup> See NSF’s Revised Cost Sharing Policy Statement for the Foundation’s overarching policies on cost sharing.

## **1. Statutory (1%) Cost Sharing Requirement**

In accordance with prior Congressional requirements, NSF required that each grantee share in the cost of NSF research projects resulting from unsolicited proposals. The appropriations providing funds to NSF and other independent agencies contained the following language:

“None of the funds provided in this Act may be used for payment, through grants and contracts, to recipients that do not share in the cost of conducting research resulting from proposals for projects not specifically solicited by the Government: Provided, that the extent of cost sharing by the recipient shall reflect the mutuality of interest of the grantee or contractor and the Government in the research.”

The statutory cost sharing requirement is eliminated effective with awards made on or after June 1, 2007.

## **2. Awards Issued Prior to Elimination of Statutory (1%) Cost Sharing Requirement**

There are many existing awards that were awarded prior to the elimination of the statutory cost sharing amount. Grantees can meet the amount by either of two alternative methods:

- (a) cost sharing one percent on each and every project; or
- (b) cost sharing one percent on the aggregate total costs of all projects requiring cost sharing. This latter approach allows organizations greater flexibility by being able to share a greater percentage on some projects and not share at all on others.

Decisions on which method to use may be made by the grantee, and there is no requirement that NSF either be advised or approve of the method chosen. NSF does not use “organizational cost sharing agreements,” such as those used by some granting agencies, to provide for aggregated cost sharing.

Cost sharing responsibilities are assumed by the grantee upon acceptance of the grant. This accountability extends to subawardee cost share commitments made under the award.

## **3. Method of Providing Contributions**

Unless the grant states otherwise, contributions may be made from any non-Federal source, including non-Federal grants or contracts. Contributions from non-Federal sources may be counted as cost sharing toward Federal projects only once. Thus, contributions counted as cost sharing toward projects of another Federal agency may not be counted as cost sharing toward projects supported by NSF. If such contributions however, are related to projects supported by more than one Federal agency, the recipient may elect to make a proration among the agencies involved.

The contributions may be in the form of either direct or indirect costs.

Only items that would be allowable under the applicable cost principles, if charged to the project, may be included as the grantee’s contribution.

Organizations will not be required to obtain prior NSF approval of the manner in which contributions are to be provided. The contributions may be in any allowable budget category or combination of categories. When direct cost items are contributed to the project, however, any indirect costs related to that item may not be charged to the project. Those indirect costs may, of course, be counted as part of the contribution. This restriction also applies to fringe benefits (when treated as direct costs) applicable to direct salaries contributed by the recipient.

If a grantee wishes to provide cost sharing in the indirect cost category, it should merely reduce its claim for indirect costs to which it would be otherwise entitled, indicating the difference as cost sharing.

#### **4. Cost Sharing Records and Reports**

##### **a. Grantee Records**

(i) Grantees shall maintain records of all research project costs that are claimed by the grantee as being its contribution to cost participation, as well as records of costs to be paid by the government. Such records are subject to audit.

(ii) If the grantee's cost participation includes in-kind contributions, the basis for determining the valuation for volunteer services and donated property must be documented.

(iii) Grantees using the aggregate cost sharing method may find it useful, on a fiscal year basis, to prepare a summary of the total project costs for the year of all NSF-funded projects requiring cost sharing (excluding those grants which require specific cost sharing amounts or percentages; see AAG Chapter II.D.5, the total amount of cost sharing on those projects for the year, and the aggregate level of cost sharing expressed as a percentage of contributed costs to total project costs. Such information will facilitate organizational and Federal audit review and analysis of compliance with the cost sharing requirements on the aggregate basis.

b. Grantee Reports. Unless otherwise required by the grant or requested by NSF, the actual cost participation by the grantee need not be reported to NSF. Recognizing that there are some awards that contain cost sharing, in those cases where the cost-sharing amount reflected on Line M of the cumulative award budget is \$500,000 or more, the amount of cost sharing must be documented (on an annual and final basis), certified by the Authorized Organizational Representative, and reported to the NSF Program Officer via the reporting module in FastLane.

c. Should the awardee become aware that it may be unable to provide the cost sharing of at least the amount identified on Line M of the NSF award budget, it must: 1) immediately provide written notification to the Grants Officer of the situation; 2) indicate steps it plans to take to secure replacement cost sharing; 3) indicate the plans it has to either continue or phase out the project in the absence of cost sharing.

#### **5. Cost Sharing Commitments**

Grantees should be aware that cost sharing commitments are subject to audit. Audit findings involving cost sharing have pertained to: a) grantee accounting systems not capturing cost sharing identified with a particular project; b) failure to keep adequate source documentation for claimed cost sharing; c) unclear valuation of in-kind donated contributions; d) lack of support for cost sharing contributions by sub-recipients; and e) failure to complete annual certifications for awards with cost sharing requirements of \$500,000 or more. These certifications must be submitted electronically via FastLane. Additional guidance on cost sharing may be obtained at <http://www.nsf.gov/bfa/dias/caar/costrev.jsp>.

Section .23 of OMB Circular A-110 (2 CFR §215.23) prescribes criteria and procedures for the allowability of cash and in-kind contributions in satisfying cost sharing and matching requirements. Cost sharing is defined as "all contributions, including cash and third party in-kind which meet seven criteria: verifiable, not included as contributions for any other federally-assisted project or program, necessary and reasonable for accomplishment of objectives, allowable, not paid by the Federal Government under another award (except where authorized by statute), provided for in the approved budget when required by the Federal awarding agency, and conform to other Circular provisions."

## **E. Technical Reporting Requirements**

NSF requires technical project reports for all assistance awards. Information from these reports is used in annual reports to Congress to demonstrate the Foundation's performance as mandated by the Government Performance and Results Act (GPRA) of 1993. These reports also provide NSF program officers and administrative offices with information on the progress of supported projects and the way these funds are used. Information in these reports may be made available to the general public through the Freedom of Information Act (FOIA).

Technical reports must be submitted via the electronic project reporting system in FastLane.

### **1. Annual Project Reports**

Unless otherwise specified in the award, annual project reports should be submitted at least 90 days prior to the end of the current budget period to allow adequate time for the Program Officer to review and approve the report. As reflected in the FastLane Project Report System, the report is considered due during the 90 day period. The report becomes overdue the day after the 90 day period ends. Failure to submit timely reports will delay processing of additional funding and administrative actions, including, but not limited to, no cost extensions. In the case of continuing grants, failure to submit timely reports may delay processing of funding increments. See also AAG Chapter I.E.3.

Annual project reports are generally not required for fellowship awards. Specific reporting requirements for fellowships are established in the program solicitation and award conditions.

For multi-year standard grants, PIs are required to submit annual reports as outlined above. In the case of cooperative agreements, the annual report is required before NSF approves any future funding increments.

Continuing grants also are subject to the same policies regarding report submission as outlined above. For continuing grants that have a duration of 18 months or more per increment, two annual reports are required. A report must be submitted for the first 12 months of the project, and then another report for the remaining months of the increment. Continuing grants which include an initial increment of 24 months will require an annual report for each 12 month period.

### **2. Final Project Report**

Within 90 days following expiration of the grant, a final project report must be submitted electronically via the NSF FastLane System. As reflected in the FastLane Project Report System, the report is considered due during the 90 day period. The report becomes overdue the day after the 90 day period ends. In addition, the grantee also shall provide to the cognizant NSF Program Officer, within 90 days following the expiration of the grant:

- any unique reports or other end items specified in the award, including any reporting requirements set forth in any NSF brochure, guide, solicitation, etc., referenced in the award as being directly related to either the award or the administration of the award.
- a final cost share notification documented and certified by the Authorized Organizational Representative for awards where the cost sharing amount reflected on Line M of the cumulative award budget is \$500,000 or more.

Final project reports are normally not required for institutional graduate research fellowships and interagency agreements. However, final project reporting requirements for individual fellowships are established in the program solicitation.

### **3. Project Outcomes Report for the General Public**

Within 90 days following expiration of the grant, a project outcomes report for the general public must be submitted electronically via Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted in the Research Spending and

Results section of the Research.gov website **exactly as it is submitted** and will be accompanied by the following disclaimer:

“This Project Outcomes Report for the General Public is displayed verbatim as submitted by the Principal Investigator (PI) for this award. Any opinions, findings, and conclusions or recommendations expressed in this Report are those of the PI and do not necessarily reflect the views of the National Science Foundation; NSF has not approved or endorsed its content.”

Grantees are to ensure that the report does not contain any confidential, proprietary business information; unpublished conclusions or data that might compromise the ability to publish results in the research literature; or invention disclosures that might adversely affect the patent rights or those of the organization, in a subject invention under the award. Responses are not to contain any private personally identifiable information such as home contact information, individual demographic data or individually identifiable information collected from human research participants.

#### **Section Contents:**

1. Describe the project outcomes or findings that address the intellectual merit and broader impacts of the work as defined in the NSF merit review criteria. This description should be a brief (generally, two to three paragraphs) summary of the project’s results that is written for the lay reader. Principal Investigators are strongly encouraged to avoid use of jargon, terms of art, or acronyms.
2. NSF will automatically include all publications that are provided regarding the award in the FastLane project reporting system. Other products that have resulted from the award also are to be listed. Examples of other products include collections, data sets, software, as well as educational materials.
3. Additional information.

Information regarding anticipated publication of project results, as well as any other information that would be of interest to the public also may be included in this section.

#### **4. Final Technical Information Items**

As soon as they are available after completion of the project, the following technical items shall be submitted for NSF program management use:

- a. abstracts of theses;
- b. publication citations and reprints of articles;
- c. data on scientific collaborations;
- d. information on inventions;
- e. technical description of the project and results;
- f. other materials either required in the grant or considered to be useful to NSF; and
- g. Universal Resource Locator numbers of electronic publications generated by the project.

#### **5. Compliance with Technical Reporting Requirements**

PIs must submit final technical reports within the time period specified. **Failure to provide these reports on a timely basis will delay NSF review and processing of pending proposals for all identified PIs and co-PIs on a given award.**

## 6. Grant Closeout

Grant closeout is the process by which NSF determines that all applicable administrative actions and all required work of the grant have been completed. Grants will be financially closed based on final costs reported on the Federal Financial Report (FFR) one full quarter after the expiration of the grant. Grants are administratively closed after receipt of the Final Project Report and after determination that any other administrative requirements in the grant have been met. In the event a final audit has not been performed prior to the closeout of the grant, NSF reserves the right to recover appropriate amounts after fully considering the recommendations on disallowed costs resulting from the final audit.

## F. Records Retention and Audit

1. Financial records, supporting documents, statistical records and other records pertinent to a grant will be retained by the grantee for a period of three years from submission of the Final Project Report described in AAG Chapter II.E.2 except that:

a. records related to audits, appeals, litigation or the settlement of claims arising out of the performance of the project will be retained until such audits, appeals, litigation or claims have been disposed of; and

b. records related to projects subject to special program income provisions (AAG Chapter VI.F.3) will be retained for three years beyond the end of the award period.

2. Unless court action or audit proceedings have been initiated, the grantee may substitute microfilm copies of original records.

3. The NSF Director and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any pertinent books, documents, papers and records, of the grantee organization (and of the performing organization, if different) to make audits, examinations, excerpts and transcripts. Further, in accordance with Section .48(d) of OMB Circular A-110 (2 CFR §215.48(d)), any negotiated contract in excess of the small purchase threshold made by the grantee shall include a provision to the effect that the grantee, NSF, the Comptroller General or any of their duly authorized representatives, shall have access to pertinent records for similar purposes.

4. In order to avoid duplicate recordkeeping, NSF may make special arrangements with grantees to retain any records which are needed for joint use. NSF may request transfer to its custody of records not needed by the grantee when it determines that the records possess long-term retention value. When the records are transferred to or maintained by NSF, the three-year retention requirement is not applicable to the grantee. In the rare event that these provisions are exercised, NSF will negotiate a mutually agreeable arrangement with the grantee regarding reimbursement of costs.

5. It is the responsibility of grantees that are States, Local Governments or Non-Profit Organizations to arrange for the conduct of audits as required by OMB Circular A-133 "*Audits of States, Local Governments, and Non-Profit Organizations*" (including colleges and universities.) They shall provide copies of the reports of these audits to the cognizant Federal audit agency. Any Federal audit deemed necessary by NSF shall build upon the results of such audit(s).



Exhibit II-1: **GRANTEE NOTIFICATIONS TO AND REQUESTS FOR APPROVAL FROM THE NATIONAL SCIENCE FOUNDATION\***

All notifications and requests for approval from the National Science Foundation must be submitted electronically via the NSF FastLane System at <http://www.fastlane.nsf.gov>. Questions related to the electronic processing of these notifications and requests should be forwarded to the FastLane Help Desk by phone at: 1-800-673-6188 or by e-mail to: [fastlane@nsf.gov](mailto:fastlane@nsf.gov).

<u>Type of Grantee Notification</u>	<u>AAG Citation</u>
Grantee Approved No-Cost Extension <sup>7</sup>	I.D.3c(i)
Significant Changes in Methods/Procedures	II.B.1b
Significant Changes/Delays or Events of Unusual Interest	II.B.1c
Short-Term Absence of the PI/PD or co-PI/co-PD	II.B.2c
Amount of Federal funds is expected to exceed the grant by more than \$5,000 or 5%	II.C.2c
Cost Share \$500K or more	II.D.5
Conflicts of Interest that cannot be satisfactorily managed, reduced or eliminated	IV.A

<u>Type of Grantee Request</u>	<u>AAG</u>	<u>RTC</u>	<u>GC-1</u>	<u>Direct questions to:</u>
First NSF Approved No-Cost Extension	I.D.3c(ii)(a)	Article 25	Article 4	Program Office
Second NSF Approved No-Cost Extension	I.D.3c(ii)(b)	Article 25	Article 4	Grants Office
Request for Supplemental Support	I.E.4			Program Office**
Change in Objective or Scope	II.B.1a	Article 25	Article 8	Program Office**
Long-Term Absence of the PI/PD or co-PI/co-PD	II.B.2d	Article 25	Article 8	Program Office**
Change in Person-Months Devoted to Project	II.B.2e	Article 25	Article 8	Grants Office, if necessary
Withdrawal of PI/PD or co-PI/co-PD	II.B.2f	Article 25	Article 8	Program Office**
Substitute PI/PD or co-PI/co-PD	II.B.2g	Article 25	Article 8	Program Office**
PI/PD or co-PI/co-PD Transfer from One Organization to Another	II.B.2h	Article 25	Article 8	Grants Office
Contracting or Transferring the Project Effort (Subawards)	II.B.3	Article 25	Article 8	Grants Office
Pre-award Costs in Excess of 90 Days	V.A.2b	Article 25	Article 3	Grants Office
Reallocation of Funds Budgeted for Participant or Trainee Support Costs	V.B.8	Article 27	Article 2	Program Office
Rearrangements/Alterations in excess of \$25,000	V.C.1	Article 27	Article 11	Grants Office
Adjustments to cost sharing commitments reflected on Line M of the approved NSF budget	II.D	Article 23	Article 25	Grants Office

**Notes:** \*This listing of Notifications and Requests for Approval is not intended to be all-inclusive. \*\*Final action by Grants Officer, when warranted

<sup>7</sup> Small Grants for Exploratory Research (SGER) awards are not eligible for this authority.

## Chapter III: Financial Requirements and Payments

The acceptance of a grant from NSF creates a legal duty on the part of the grantee organization to use the funds or property made available in accordance with the conditions of the grant. Payments may be made in advance of work performed or as a reimbursement for work performed and/or costs incurred by the grantee. However, payments may not be made in advance of a grant being signed by a Grants and Agreements Officer for the project period. NSF has a reversionary interest in the unused balance of advance payments, in any funds improperly applied (whether or not received as an advance payment), and in property acquired through the grant, to which NSF specifically either retains title or reserves the right to require title transfer.

The provisions of this chapter cover all NSF assistance awards (grants and cooperative agreements). Graduate fellowship agreements with domestic colleges and universities are included, but individual fellowships and contracts are excluded. All categories of grantees (academic, non-academic, profit and non-profit) are covered by this chapter. The procedures in this chapter apply primarily to the comptroller's office or business office.

### A. Standards for Financial Management

NSF grantees are required to have financial management systems that meet the requirements of Section .21 of OMB Circular A-110. (2 CFR §215.21)

### B. Definitions

The following definitions are either not included elsewhere in the Guide or are repeated in this section because of their special applicability to this chapter.

1. BUSINESS OFFICER - the financial official of the grantee organization who has primary responsibility for the accountability for and reporting on NSF grant funds.
2. CASH ON HAND - the balance remaining of the funds an organization has received from NSF.
3. DISBURSEMENTS/OUTLAYS/EXPENDITURES - charges made to the project during a given period for:
  - a. Goods and other tangible property received;
  - b. Services performed by employees, subawardees, contractors and other payees.
4. FASTLANE FINANCIAL FUNCTIONS - functions of NSF's FastLane System used by grantees to transmit financial information to NSF. There are three primary Financial Functions used by grantees.
  - Federal Financial Report Function - electronic version of the standard "Federal Financial Report". Used by grantees to report the financial activity of NSF awards on a quarterly basis. (See AAG Chapter III.E.1)
  - Cash Request Function - used by grantees to request funds. (See AAG Chapter III.C.1)
  - Grantee EFT Update Function. - used by grantees to provide NSF with their banking information. (See AAG Chapter III.C.6)
5. GRANTEE - the organization or other entity that receives a grant and assumes legal and financial responsibility and accountability both for the awarded funds and for the performance of the grant-supported activity. NSF grants are normally made to organizations rather than to individual PI/PD(s).
6. NSF OBLIGATIONS - funds authorized by an NSF Grants Officer for a specific NSF award creating a balance payable to a grantee.

7. GRANTEE OBLIGATIONS - the amounts of orders placed, subawards issued, contracts awarded, services received and similar transactions during a given period that will require a future payment by the grantee.

8. PAYMENTS - funds transferred from NSF to the grantee by direct deposit (Automated Clearing House (ACH) Vendor Express) and on some rare occasions by check.

9. UNLIQUIDATED OBLIGATIONS - expenses incurred but not paid. Such obligations are included in reports prepared by grantees whose financial records are maintained on an accrual basis.

10. UNOBLIGATED BALANCE - the portion of the funds authorized by the grant that have not been obligated by the grantee. It is determined by deducting outlays and unliquidated obligations from the funds authorized.

## **C. Payment Requirements**

### **1. Requesting Payments**

NSF's grantees, except for Special Payment grantees, (see AAG Chapter III.C.4) and some foreign grantees, are required to request payments electronically through the FastLane Cash Request Function. The Special Payment and certain foreign grantees without access to a U.S. bank are required to request funds by submitting a "Request for Advance or Reimbursement Form", (SF 270) (see AAG Exhibit III-1), to NSF either through mail, email or by fax.

### **2. Payment Policies**

The purpose of this section is to prescribe the timing of advances and the procedures to be observed to assure that cash payments occur only when essential to meet the needs of a grantee for its actual disbursements.

a. Timing of Payments. Advances to a grantee shall be limited to the minimum amount needed and shall be timed to be in accordance with the actual, immediate cash requirements of the grantee in carrying out the purpose of the approved program or project. The timing and amount of cash advances shall be as close as is administratively feasible to actual disbursements for direct program costs and the proportionate share of any allowable indirect costs.

b. Payments to Subawardees. Cash advances made by primary grantees (those which receive advances directly from NSF) to others (subawardees) shall conform to the same standards of timing and amount as apply to advances by NSF to primary grantees, including the furnishing of reports of cash disbursements and balances.

c. Withholding payments. NSF reserves the right, upon written notice, to withhold future payments after a specified date if the recipient:

(i) Fails to comply with the conditions of an NSF grant, including the reporting requirements; or

(ii) Is indebted to the U.S. Government.

d. Safeguarding Funds. In no case will NSF-furnished funds be commingled with the personal funds of, or be used for personal purposes by, any officer, employee, or agent of the grantee; nor will any of these funds be deposited in personal bank accounts for disbursement by personal check.

### **3. Request for Advance**

a. Grantees may receive payments from NSF in advance of cost incurred provided that the following conditions exist:

(i) Funds for the project period have been obligated by a Grants and Agreements Officer in the form of a signed grant;

(ii) The grantee has established or demonstrated to NSF the willingness and ability to establish written procedures that will minimize the time elapsing between the transfer of funds from the U.S. Treasury and their disbursement by the grantee; and

(iii) The grantee's financial management system meets the standards for fund control and accountability prescribed in Section .21 of OMB Circular A-110. (2 CFR §215.21)

b. The grantee's designated official (Accounting Officer, Business Officer, Treasurer, etc.) must submit their cash requests for payment by using the FastLane Cash Request System. Grantees submit requests on a periodic basis (monthly, biweekly or other regular cycle) depending on their normal disbursement patterns. Such requests should be limited to the minimum amounts needed and be timed to meet the anticipated cash requirements for allowable charges to active NSF projects.

c. Grantees shall maintain advances of NSF funds in interest bearing accounts as specified in AAG Chapter III.D.3.

#### **4. Special Payment Grantees**

When grantees do not meet the conditions specified in AAG Chapter III.C.3, or when otherwise considered appropriate by NSF, they are not allowed to request funds electronically through the FastLane Cash Request Function or to request funds in advance, NSF will make payments to these grantees on a reimbursable basis only. These grantees are required to request funds by using a "Request for Advance or Reimbursement Form" (SF 270). For a copy of the form see AAG Exhibit III-1. The amount requested is reported on line 11i of the form. Unless instructed otherwise in the NSF award notice, the form should be submitted to the cognizant Grants and Agreements Officer by email, by fax to 703-292-9142, or through the mail to:

National Science Foundation  
Division of Grants & Agreements  
Room 480  
4201 Wilson Blvd  
Arlington, VA 22230

#### **5. Working Capital Advance**

In those cases where the reimbursement method described in AAG Chapter III.C.4 is not feasible, arrangements may be made whereby NSF projects are financed on a working capital advance basis. On this basis, funds may be advanced to the grantee to cover estimated disbursement needs for a given initial period. Thereafter, the grantee would be reimbursed for the amount of its actual cash disbursements. The amount of the initial advance shall be geared to the reimbursement cycle so that after the initial period, the advance approximately equals the average amount of the grantee's unreimbursed program disbursements. Under this method of payment, the NSF grant will specify if the grantee is required to use the SF 270. If use of the form is required, section 12 of the SF 270 will be used for the initial advance; thereafter, reimbursements will be requested on the SF 270, line 11i.

#### **6. Grantee EFT Update**

Grantee Electronic Funds Transfer (EFT) Update is a FastLane Financial Function used by grantees to provide NSF with their electronic banking information. This system enables NSF to transfer funds electronically to a grantee's bank account by using the banking information provided by the grantee. All NSF grantees, with the exception of certain non-U.S. grantees noted in paragraph C.1.above, must provide banking information through Grantee EFT Update in order to request and/or receive payments.

#### **7. Use of Women-Owned and Minority-Owned Banks**

Recipients of NSF grants are encouraged by the Federal government to use banks which are owned (at least 50 percent) by women or minority groups such as Asian, Black, Hispanic, Native Americans and Pacific Islanders. This action is consistent with the national goal of expanding the opportunities for women-owned and minority owned business enterprises.

## **D. Cash Refunds and Credits to NSF**

### **1. Final Unobligated Balance**

NSF has a reversionary interest in the unobligated balance of a grant upon expiration or completion of the grant. Based on final disbursements reported on the FFR, the final unobligated balance will be computed by NSF and reported in the "Unobligated Balance" column of the FFR. (See AAG Chapter III.E.2.) The entry reduces the grantee's "Balance Authorized" as computed on the report page, section 10 (Transactions) of the FFR. (Detailed instructions for submission of the FFR are available on the FastLane website at <https://www.fastlane.nsf.gov/jsp/homepage/faulogin.jsp>.)

### **2. Erroneous Payments**

Advances or reimbursements made in error must be refunded to the National Science Foundation if the erroneous payment creates excess cash on hand condition or a negative "Balance Authorized" as computed on the FFR. Excess funds should be promptly refunded electronically or by check. Contact the NSF Division of Financial Management at (703) 292-8280 for instruction for electronically refunding monies to NSF. Checks shall be mailed to NSF, Attn. Cashier, 4201 Wilson Boulevard, Arlington, VA 22230.

The only exception to the requirement for prompt refunding is when the funds involved will be disbursed within 30 calendar days. This exception for prompt refunding should not be construed as approval by NSF for a grantee to maintain excessive funds on hand.

### **3. Interest Earned on Advance Payments**

Grantees shall maintain advances of NSF funds in interest bearing accounts, unless any of the following apply:

- a. The grantee receives less than \$120,000 in Federal grants per year;
- b. The best reasonably available interest bearing account would not be expected to earn interest in excess of \$250 per year on Federal cash balances; or
- c. The depository would require an average or minimum balance so high that it would not be feasible within the expected Federal and non-Federal cash resources.

Interest earned on NSF advances deposited in interest bearing accounts shall be remitted annually to the Department of Health and Human Services (DHHS), Payment Management System, P.O. Box 6021, Rockville, MD 20852 (telephone number: (301) 443-9247). Grantees are authorized to retain up to \$250 per year for administrative expenses.

The requirement to annually remit interest does not apply to grantees subject to the Cash Management Improvement Act (CMIA) and its implementing regulations (i.e., State agencies and instrumentalities). State universities and hospitals shall comply with the CMIA, as it pertains to interest. In accordance with Section .22 of OMB Circular A-110 (2 CFR §215.22) if a grantee subject to CMIA uses its own funds to pay pre-award costs without prior written approval from NSF, it waives its right to recover the interest under CMIA.

### **4. Program Income**

If, in accordance with the grant, program income is designated for credit to grant costs, it will be recovered by NSF by crediting costs otherwise chargeable against the grant on the FFR. (See AAG Chapter VI.F.) In these cases, income in excess of the grant will be remitted to NSF electronically or by check payable to the National Science Foundation.

## **5. Other Cost Credits**

Purchase discounts, rebates, allowances, credits resulting from overhead rate adjustments and other credits relating to any allowable cost received by or accruing to the grantee shall be credited against NSF grant costs if the grant has not been financially closed out. A grant is financially closed out when the final disbursements have been reported on the FFR. Credits of \$300 or more shall be credited against NSF grant costs even if the grant has been closed out. (See also AAG Chapter V.B.7.)

## **E. Grant Financial Reporting Requirements**

### **1. Quarterly Disbursement Reporting – Federal Financial Report (FFR)**

Grantees are required to report the status of funds received from NSF on a quarterly basis through the submission of a Federal Financial Report (FFR). The reports are prepared and submitted electronically to NSF through the FastLane Federal Financial Report Function.

Within seven to ten business days after the end of a calendar quarter, NSF will create and make the FFR's available to grantees through the FastLane Financial Functions and through Research.gov. E-mail notices are sent to each grantee announcing the reports availability and its due date. Grantees are required to update, certify and submit the FFR to NSF by the due date even if funds have not been drawn during the reporting period. Grantees certify the report's truthfulness as stated in the Certification page of the FFR. The FFR elements are in compliance with the uniform Federal standards applicable to financial reporting by grantees.

Failure to submit the FFR to NSF in a timely manner can result in one or more of the following actions:

- a. Suspension of all future payments;
- b. Closeout of expired awards based on previously reported disbursements;
- c. Suspension of unexpired awards; and
- d. Suspension of review and processing of new proposals.

### **2. Final Disbursement Reporting**

NSF does not require grantees to submit individual FFR's for each award for purposes of final grant accountability. NSF procedures have been designed to extract the final financial data from the entries in the FFR. This reporting is accomplished as follows:

- a. For any grant listed on the FFR that expired prior to the beginning of the quarter covered by the FFR, the grantee will enter the final disbursement amount in the Cumulative Cash Disbursements column on the FFR Attachment.
- b. If there are valid unpaid obligations outstanding at the time final disbursements are due, the obligations must be charged against the NSF cash advance and reported in the Cumulative Cash Disbursements column on the FFR as if they had actually been paid. If subsequent disbursements differ by \$300 or more from the amount previously reported, the grantee must report the amount as an "Adjustments to Financially Closed Awards" and specify the reason for the adjustment under the remarks section of the FFR Adjustments Worksheet.
- c. If by law, regulation, and/or accounting system limitations, valid unpaid obligations cannot be charged against the NSF advance and reported as disbursed in accordance with b. above, closeout by NSF will be deferred provided that:
  - (i) The grantee identifies grants with "unpaid obligations" in the Remarks section of the FFR;
  - (ii) The grantee submits the FFR before the quarterly financial closeout procedure is run; and

- (iii) The appropriation that funds the grant has not cancelled as noted under Public Law 101-510.
- d. The final disbursement amount may not exceed the amount of the award.
- e. When the final disbursements have been recorded by NSF, the award will be financially closed and no additional disbursements shall be shown by the grantee in subsequent reports. When all final reporting requirements have been met, the award will be deleted from the FFR. When this is done, the award will be shown in the next "Schedule of Awards Purged and Subsequent Adjustments during the Quarter," of the FFR.





## Chapter IV: Grantee Standards

NSF encourages the increased involvement of academic researchers and educators with industry and private entrepreneurial ventures, but recognizes that such interactions carry with them an increased risk of conflict of interests. AAG Chapter IV.A contains NSF's policy on conflict of interest.

2 CFR §215 prescribes three sets of standards for academic and other non-profit recipients of Federal grants, each governing a different area: financial management systems, procurement policies, and procedures and property management. AAG Chapter III.B, III.C and III.D implement the OMB standards, and extend their applicability to all types of recipients of NSF grants, including commercial firms.

### A. Conflict of Interest Policies

1. NSF requires each grantee institution<sup>8</sup> employing more than fifty persons to maintain an appropriate written and enforced policy on conflict of interest and that all conflicts of interest for each award be managed, reduced or eliminated prior to the expenditure of the award funds. If the institution carries out agency-funded research through subawardees, contractors, or collaborators, the Institution must take reasonable steps to ensure that:

- a. the entity has its own policies in place that meet the requirements of this policy; or
- b. investigators working for such entities follow the policies of the primary institution.

Guidance for development of such policies has been issued by university associations and scientific societies.<sup>9</sup>

2. An institutional conflict of interest policy should require that each investigator disclose to a responsible representative of the institution all significant financial interests of the investigator (including those of the investigator's spouse and dependent children): (i) that would reasonably appear to be affected by the research or educational activities funded or proposed for funding by NSF; or (ii) in entities whose financial interests would reasonably appear to be affected by such activities.

The term "investigator" means the principal investigator/project director, co-principal investigators/co-project directors, and any other person at the institution who is responsible for the design, conduct, or reporting of research or educational activities funded or proposed for funding by NSF.

The term "significant financial interest" means anything of monetary value, including, but not limited to, salary or other payments for services (e.g., consulting fees or honoraria); equity interest (e.g., stocks, stock options or other ownership interests); and intellectual property rights (e.g., patents, copyrights and royalties from such rights).

The term does not include:

- a. salary, royalties or other remuneration from the applicant institution;
- b. any ownership interests in the institution, if the institution is an applicant under the Small Business Innovation Research Program or Small Business Technology Transfer Program;

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<sup>8</sup> For consistency with the DHHS conflict of interest policy, in lieu of "organization", NSF is using the term "institution" which includes all categories of proposers.

<sup>9</sup> See:

<http://www.aau.edu/research/COI.01.pdf>;

<http://www.aamc.org/research/coi/firstreport.pdf>;

<http://www.aamc.org/research/coi/2002coireport.pdf>;

<http://www.aamc.org/research/coi/coireports2003.pdf>;

<http://www.cogr.edu/docs/COIFinal.pdf>;

<http://www.aaup.org/AAUP/About/committees/committee+repts/CommA/ResearchonHumanSubjects.htm>

- c. income from seminars, lectures, or teaching engagements sponsored by public or non-profit entities;
  - d. income from service on advisory committees or review panels for public or nonprofit entities;
  - e. an equity interest that, when aggregated for the investigator and the investigator's spouse and dependent children, meets both of the following tests: (i) does not exceed \$10,000 in value as determined through reference to public prices or other reasonable measures of fair market value; and (ii) does not represent more than a 5% ownership interest in any single entity; or
  - f. salary, royalties or other payments that, when aggregated for the investigator and the investigator's spouse and dependent children, are not expected to exceed \$10,000 during the twelve-month period.
3. An institutional policy must ensure that investigators have provided all required financial disclosures at the time the proposal is submitted to NSF. It must also require that those financial disclosures are updated during the period of the award, either on an annual basis, or as new reportable significant financial interests are obtained.
4. An institutional policy must designate one or more persons to review financial disclosures, determine whether a conflict of interest exists, and determine what conditions or restrictions, if any, should be imposed by the institution to manage, reduce or eliminate such conflict of interest. A conflict of interest exists when the reviewer(s) reasonably determines that a significant financial interest could directly and significantly affect the design, conduct, or reporting of NSF-funded research or educational activities.

Examples of conditions or restrictions that might be imposed to manage, reduce or eliminate conflicts of interest include, but are not limited to:

- a. public disclosure of significant financial interests;
- b. monitoring of research by independent reviewers;
- c. modification of the research plan;
- d. disqualification from participation in the portion of the NSF-funded research that would be affected by significant financial interests;
- e. divestiture of significant financial interests; or
- f. severance of relationships that create conflicts.

If the reviewer(s) determines that imposing conditions or restrictions would be either ineffective or inequitable, and that the potential negative impacts that may arise from a significant financial interest are outweighed by interests of scientific progress, technology transfer, or the public health and welfare, then the reviewer(s) may allow the research to go forward without imposing such conditions or restrictions.

5. The institutional policy must include adequate enforcement mechanisms, and provide for sanctions where appropriate.
6. The institutional policy must include arrangements for keeping NSF's Office of the General Counsel appropriately informed if the institution finds that it is unable to satisfactorily manage a conflict of interest.<sup>10</sup>
7. Institutions must maintain records of all financial disclosures and of all actions taken to resolve conflicts of interest for at least three years beyond the termination or completion of the grant to which they relate, or until the resolution of any NSF action involving those records, whichever is longer.

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<sup>10</sup> Grantee notifications of conflict of interest that cannot be managed, reduced, or eliminated must be submitted electronically via the NSF FastLane System.

## **B. Responsible Conduct of Research (RCR)**

### **1. Background**

The responsible and ethical conduct of research (RCR) is critical for excellence, as well as public trust, in science and engineering. Consequently, education in RCR is considered essential in the preparation of future scientists and engineers. Section 7009 of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act (42 U.S.C. 1862o–1 requires that “each institution that applies for financial assistance from the Foundation for science and engineering research or education describe in its grant proposal a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduate students, graduate students, and postdoctoral researchers participating in the proposed research project.”

The language specified below provides NSF’s implementation of Section 7009.

### **2. Institutional Responsibilities**

- a. An institution must have a plan in place to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research. As noted in GPG Chapter II.C.1.e, institutional certification to this effect is required for each proposal.
- b. While training plans are not required to be included in proposals submitted to NSF, institutions are advised that they are subject to review, upon request.
- c. An institution must designate one or more persons to oversee compliance with the RCR training requirement.
- d. Institutions are responsible for verifying that undergraduate students, graduate students, and postdoctoral researchers supported by NSF to conduct research have received training in the responsible and ethical conduct of research.

## **C. Financial Management Systems Standards**

NSF grantees are required to have financial management systems which meet the requirements of Section .20 of OMB Circular A-110 (2 CFR 215 §20).

## **D. Procurement Standards**

NSF grantees shall adhere to the requirements of Sections .40-48 of OMB Circular A-110 (2 CFR 215 §§40-48) which prescribe standards for use by recipients in establishing procedures for the procurement of supplies and other expendable property, equipment, real property and other services with Federal funds.

## **E. Property Management Standards**

- 2 CFR §215.30 prescribes standards for managing and disposing of property furnished by the Federal government or whose cost was charged to a project supported by a Federal grant.
- In the rare instances where NSF grants might involve the acquisition of real property and unless otherwise specified in the grant document, the real property standards of 2 CFR §215.32 are applicable to such NSF grants.
- NSF implementation of the OMB standards on intellectual property is contained in AAG Chapter VI.D.
- Title to materials developed and supplies purchased under an NSF grant will vest in the grantee.

- 2 CFR §215.33 contains a special category of “exempt property.” Under that provision, any Federal agency which has statutory authority (such as NSF) may vest title in an institution of higher education, hospital or other non-profit organization without further obligation to the Federal Government and under conditions the agency considers appropriate.

## **1. Title to Equipment**

### **a. Title to Equipment - Non-Profit Organizations**

(i) Normal Situations. Unless otherwise specified in the grant, title to equipment purchased or fabricated with NSF grant funds by a college or university or other non-profit organization will vest in the grantee organization upon acquisition. Such equipment is considered “exempt property” (see AAG Chapter IV.E. and subject to the conditions of AAG Chapter IV.E.2.)

(ii) Special Situations. In special situations the grant may require that title to equipment purchased, acquired or fabricated by the grantee with NSF funds pass directly to the government from the vendor.

### **b. Title to Equipment - Commercial Organizations**

Unless otherwise specified in the grant, title to equipment purchased or fabricated with NSF grant funds by a small business or other commercial firm will vest in the government. Such equipment will be acquired and used in accordance with AAG Chapter IV.E.2, and managed in accordance with AAG Chapter IV.E.4.

## **2. Conditions for Acquisition and Use of Equipment**

a. Grantee Assurance. The grantee will assure that for each purchase of equipment, it is:

- (i) necessary for the research or activity supported by the grant;
- (ii) not otherwise reasonably available and accessible;
- (iii) of the type normally charged as a direct cost to sponsored agreements; and
- (iv) acquired in accordance with organizational practice.

b. General Purpose Equipment. Expenditures for general purpose equipment (see AAG Chapter V.B.2b) are unallowable unless the equipment is primarily or exclusively used in the actual conduct of research.

c. Equipment Usage. The equipment must remain in use for the specific project for which it was obtained in accordance with 2 CFR §215.34 unless the provision in §.34e. applies.

d. Equipment Sharing. The equipment must be shared on other projects or programs in accordance with 2 CFR 215.34(d).

e. Property Management Standards. The grantee shall maintain a property management system which, at a minimum, meets the requirements of 2 CFR §215.34(f).

f. Competition. Grantees shall not use equipment acquired with Federal funds to provide services to non-Federal outside organizations for a fee that is less than private companies charge for equivalent services, unless specifically authorized by statute, for as long as the Federal Government retains an interest in the equipment.

g. Right to Transfer Title.

(i) NSF may identify items of equipment having a unit acquisition cost of \$5,000 or more where NSF reserves the right to transfer the title to the Federal government or to a third party named by the Federal government.

- (ii) In such cases where NSF elects to transfer the title, disposition instructions will be issued no later than 120 calendar days after the expiration date of the NSF-supported project for which it was acquired.

### **3. Principles Relating to the Use of NSF-Supported Research Instrumentation and Facilities**

The following principles on use of NSF-supported instrumentation and facilities were adopted by the National Science Board:

The National Science Foundation seeks the maximum productive use of the Nation's scientific instrumentation and research expertise. Ensuring that the highest quality instrumentation, facilities, and services are available to scientific users, both academic and industrial, is a key requirement, as are harmonious relations and cooperation between industry and universities. Private research and testing laboratories, as well as university, government, and industrial laboratories, have a contribution to make.

The National Science Board recognizes that there may be circumstances where NSF grantees use NSF-supported research instrumentation to provide services in commerce for a fee, to an extent that such practice, (1) detracts from the performance of their obligation under the grant, and/or (2) may have a material and deleterious effect on the success of private companies engaged in the provision of equivalent services. It is contrary to the NSF's intent for grantees to use NSF-supported research instrumentation or facilities to provide services for a fee in competition with private companies in a manner that is prohibited by 2 CFR §215.34(b).

Grantees should implement the above principles and related grant conditions in a reasonable manner. Grantees are expected to provide fair and adequate consideration of any complaints about use of instrumentation and facilities.

### **4. Property Management Standards When Title Retained by NSF**

In the event that title to equipment or property is vested in the Federal Government, such property shall be marked, tagged or segregated in such a manner as to indicate clearly its ownership by the government. Unless otherwise provided in the grant, such government property shall be used only for the performance of the project. The grantee shall submit an annual inventory report by NSF grant number of such property having an original acquisition cost of \$5,000 or more, to the NSF Property Administrator, Division of Administrative Services (DAS). A physical inventory of Government-Owned Equipment (GOE) shall be conducted every two years pursuant to 2 CFR §215.34(f)(3). Upon expiration of the grant, the grantee shall report the property to the Property Section for further agency utilization. (See AAG Chapter IV.E.5.)

### **5. Excess Government Personal Property**

#### **a. Policy**

(i) As a means of expanding the ability of grantees to accomplish NSF objectives while conserving supply and equipment funds, NSF will continue to sponsor the transfer of excess government personal property to NSF grantees.

(ii) Excess government personal property includes all types of personal equipment and materials (except consumable items such as drugs, paint, etc.), new or used, owned by the Federal Government and no longer needed by the holding agency, but having additional useful life. Under regulations established by the General Services Administration (GSA), the agency charged with operating this program, excess government personal property may be reported to, or requested from, GSA by other Federal agencies, including NSF.

(iii) NSF will sponsor the transfer of excess government personal property to eligible organizations under one of the following conditions:

- (a) the use of the property significantly furthers an NSF grant-supported activity;

- (b) the property is such that it would have been procured under the grant for which property is being requested if additional grant funds had been available;
- (c) the property is used as part of the grant activity and subsequently for research or science education purposes; or
- (d) the property is classified by GSA as scientific or engineering research equipment and has a unit acquisition cost of \$1,000 or more. (See AAG Chapter IV.E.5f.)

**b. Eligibility**

Eligible organizations are NSF grantees that are public or private institutions of higher education or non-profit organizations whose primary purpose is the conduct of research or science education activities. State and municipal governments, public health units, hospitals, profit-making firms and individual PI/PDs are not eligible for excess government personal property under NSF sponsorship.

**c. Procedures**

(i) To access a worldwide inventory of available excess personal property, an eligible grantee should contact the Property Administrator ([fsrpts@nsf.gov](mailto:fsrpts@nsf.gov)), DAS to become a registered user of GSAXcess® (GSA's online personal property system located at <http://gsaxcess.gov/>).

(ii) Grantees can visit GSAXcess® to screen for items that are necessary to accomplish the NSF supported project by searching GSA's inventory and adding items to the Selection Cart. Excess personal property is reported by Category (Federal Supply Classification (FSC)) and includes the item control number, name, location, quantity available, and unit of issue, original acquisition cost, surplus release date and condition of items posted. In some instances a photograph of the property item is available.

(iii) Materials and equipment so selected should be inspected whenever possible (see AAG Chapter IV.E.5d), or the holding Federal agency should be contacted by the grantee to verify the condition of the items, because interpretation of condition codes can vary among agencies.

(iv) If the condition of the item is acceptable, the grantee should freeze items by Checkout of the Selection Cart to generate a Transfer Control Number/SF 122, Transfer Order Excess Personal Property.

(v) The grantee should next submit the SF 122, *Transfer Order Excess Personal Property* and a separate written justification statement, if necessary, to the Property Administrator, DAS. The justification will explain why the property is needed to reduce the cost or enhance the performance under the specific grant for which the property is requested.

(vi) The SF 122 should be signed by either the PI/PD or the Authorized Organizational Representative. The following information should also be provided on each SF 122:

- (a) name of grantee organization;
- (b) grant number;
- (c) expiration date;
- (d) the statement "The above equipment is requested for use by the grantee in support of research or education as outlined in the grant"; and
- (e) the statement "Transfer is in accordance with the provisions of 41 CFR §101.43." The grantee should also verify the automatic release date with GSA to preclude loss of property before the transaction is processed.

(vii) The written justification should detail the scientific need for the equipment as it relates to the particular grant under which the equipment is to be used, and should cite the conditions of this section as being binding upon the grantee, should the property be acquired.

(viii) Upon receipt by NSF, the SF 122 will be reviewed and forwarded to the appropriate GSA Office. Items are usually allocated on a first come, first served basis. Since GSA may have several freezes on a piece of equipment, first come, first served is interpreted as the first approved SF 122 received by the GSA office and designated Area Property Officer (APO). However, preference will be given by GSA to agencies which do not grant title to equipment. As confirmation of approval, the grantee will receive copies of the SF 122 from the GSA APO. If the request is disapproved, it will be returned to the grantee with an appropriate explanation.

(ix) Upon receipt of the requested property, the grantee should immediately return a copy of the SF 122 to NSF as evidence of delivery. Cancellations by GSA, or nonreceipt within a reasonable period of time should also be reported to NSF after follow-up inquiries have been made to GSA.

#### **d. Visiting Holding Agency Facilities**

(i) Under current GSA regulations all non-Federal grantee representatives wishing to visit holding agency facilities to screen or freeze government excess personal property must receive prior certification from GSA. Because of current security protocols, the holding agency may require written authorization for access.

(ii) The number of screeners on a grant should be limited to no more than two persons. The primary screener should be the PI/PD. However, if the PI/PD finds it impossible to screen, he/she may designate, in writing, a substitute.

(iii) Normally, certification will be on a regional basis; however, NSF will, under certain circumstances, sponsor grantee representatives who need to make interregional visits in order to secure equipment not readily available within their region.

#### **e. Dollar Limitation**

To ensure equitable distribution of excess government personal property, grantees may be authorized to acquire property under each NSF project grant up to a total acquisition cost equal to the dollar value of that particular grant. Any request for excess property which causes the total to exceed the value of the grant will require additional justification beyond that requested in AAG Chapter IV.E.5c. A higher percentage of excess property requested under a particular grant by a grantee must be approved by an administrative level in NSF which is higher than the Program Officer who normally administers the grant. NSF will give full consideration to all factors in determining whether to approve transfers of excess property above the dollar value of a given grant. Grantees are therefore urged to be selective in their requests for excess government personal property to limit quantities of each item where possible and to avoid stockpiling items for future use.

#### **f. Restrictions**

(i) NSF will sponsor the transfer of excess government personal equipment to eligible organizations only under project grants. As defined in the GSA regulations, "project grants" refers to grants made for specific purposes with established termination dates, e.g., grants made to specific organizations to perform specific tasks within set time frames and costs. No excess property may be acquired on behalf of conference, publication-support grants or travel grants. In addition, on "summer-type training grants," no property may be acquired after the training period has terminated. Further, grantees should exercise careful judgment on the appropriateness of requesting excess personal property when only a short period of time exists between the date of the property request and the completion or successful accomplishment of the NSF-supported activity. GSA will consider items of personal property as research equipment for transfer without reimbursement to NSF for use by a grantee when the property requested has a unit acquisition cost of \$1,000 or more and is within Federal Supply Classification Groups:

(a) 12 Fire Control Equipment;

(b) 14 Guided Missiles;

- (c) 43 Pumps and Compressors;
- (d) 48 Valves;
- (e) 58 Communication, Detection and Coherent Radiation Equipment;
- (f) 59 Electrical and Electronic Equipment Components;
- (g) 65 Medical, Dental and Veterinary Equipment and Supplies;
- (h) 66 Instruments and Laboratory Equipment;
- (i) 67 Photographic Equipment;
- (j) 68 Chemical and Chemical Products; or
- (k) 70 General Purpose Automatic Data Processing Equipment, Software, Supplies and Support Equipment.

Automatic data processing equipment must be acquired under the provisions in 41 CFR §201.23.

(ii) GSA will give consideration to the transfer without reimbursement of items of excess property in other Federal supply classification groups and items with a unit acquisition cost of less than \$1,000, when NSF certifies that the item requested is a component part of or related to a piece of research equipment or is an otherwise difficult to acquire item needed for scientific or engineering research. Items of property determined by GSA to be common-use or general purpose property, regardless of classification or unit acquisition cost, shall not be transferred to a grantee for the purpose of cannibalization, unless the granting agency sends with the transfer request a supporting statement which clearly indicates that disassembly of the requested item for secondary use of its component parts, or for repair and maintenance of a similar item, has greater potential benefit than utilization of the item in its existing form and that a clear cost savings to the government will result, subject to final determination by GSA.

**g. Costs**

Excess government personal property is usually secured without cost. However, the recipient grantee should specify the method of shipment and must pay all costs of packing, transportation and subsequent installation, rehabilitation and maintenance if required. Grant funds may be used to pay such costs.

**h. Title**

Title to excess government personal property obtained by academic and other non-profit grantees through NSF sponsorship remains with the government until the property is delivered to the grantee organization. Upon delivery, the grantee should forward to NSF a receipted SF 122 which clearly lists the items of property actually obtained by the grantee. Unless NSF informs the grantee to the contrary, when this SF 122 is received at NSF, title to all property acquired will automatically pass to and be vested in the grantee organization, subject to the understanding that the property will be used for research or for science education purposes as long as it has a useful life. At such time as the property is no longer useful for such purposes, it may be disposed of in accordance with organizational practices, but any proceeds therefrom shall be used by the grantee solely for research or science education purposes. Under certain conditions, such as when highly specialized equipment is involved, NSF may retain title to excess property. When such a condition exists, NSF will inform the grantee. Excess government personal property may not be transferred to a foreign country without the express written approval of the Grants and Agreements Officer.



**i. Accountability and Recordkeeping**

(i) While no particular type of classification of accounts or inventory system is required, NSF expects that the responsible officials of the grantee organization will exercise careful stewardship of excess government personal property acquired in support of projects undertaken with NSF's financial assistance. In accordance with AAG Chapter IV.E.5e, relating to the dollar limitation on the amount of excess government personal property provided by NSF, grantees should maintain appropriate inventory procedures that will enable them to identify those requests which require more extensive administrative and scientific justification. In those cases where title to excess government personal property remains with the government, the grantee must maintain suitable records to identify its location, description, utilization and value. The use of excess government personal property under an NSF grant is subject to inspection and audit by representatives of NSF at all reasonable times during the life of the grant under which the property was acquired.

(ii) Further details may be obtained from the Property Administrator, Division of Administrative Services, National Science Foundation, 4201 Wilson Boulevard, Room 295, Arlington, VA 22230.

## Chapter V: Allowability of Costs

### A. Basic Considerations

Expenditures under NSF cost reimbursement grants are governed by the Federal cost principles and must conform with NSF policies, grant special provisions and grantee internal policies. Grantees should ensure that costs claimed under NSF grants are necessary, reasonable, allocable, and allowable under the applicable cost principles, NSF policy, and/or the program solicitation. In the event a grantee anticipates charging an item of direct cost that might subsequently be disputed, an authorized official of the grantee organization should discuss the matter with the cognizant NSF Grants and Agreements Officer and document the conditions or factors surrounding the item in order to avoid possible subsequent disallowance.

#### 1. Federal Cost Principles

##### a. Applicability to Grantees

The governing Federal cost principles applicable to specific types of grantees are as follows:

<i>Type of Organization</i>	<i>Applicable Federal Cost Principles</i>
Education Institutions	OMB Circular A-21
Non-Profit Organizations	OMB Circular A-122
State/Local Governments	OMB Circular A-87
Commercial Firms	Federal Acquisition Regulation (FAR), Part 31

##### b. Applicability to Subrecipients

Grantees are responsible for assuring that costs of all subawards under NSF grants are subject to those cost principles and procedures appropriate to the subaward type and organization involved. For example, if the subaward is a cost reimbursement type with a commercial concern, FAR Subpart 31.2 would apply.

##### c. Conflicting Guidelines

In the event of any discrepancy between the summary information contained in this chapter and any specific provision of the applicable Federal cost principles, the cost principles in effect as of the effective date of the NSF grant will govern. In the case of a discrepancy between the special provisions of an NSF grant and the standards of the applicable cost principles, the special provisions of the grant will govern.

### 2. Other Considerations

#### a. Maximum Obligation

The maximum obligation of NSF for support of the project will not exceed the amount specified in the grant, as amended. NSF does not amend grants to provide additional funds for such purposes as reimbursement for unrecovered indirect costs resulting from the establishment of final negotiated rates or for increases in salaries, fringe benefits and other costs.

#### b. Pre-Award Costs

(i) Grantees may incur allowable pre-award costs within the 90 day period immediately preceding the effective date of the grant providing:

(a) the approval of pre-award spending is made and documented in accordance with the grantee's procedures; and

- (b) the advanced funding is necessary for the effective and economical conduct of the project.
- (ii) Pre-award expenditures are made at the grantee's risk. Grantee authority to approve pre-award costs does not impose an obligation on NSF: (1) in the absence of appropriations; (2) if an award is not subsequently made; or (3) if an award is made for a lesser amount than the grantee anticipated.
- (iii) Requests for pre-award costs for periods exceeding 90 days must be submitted electronically via use of the Notification and Request module in FastLane. Pre-award expenditures prior to funding of an increment within a continuing grant are not subject to this limitation or approval requirement, but are subject to paragraph (ii). above.

**c. Post-Expiration Costs**

NSF funds may not be expended subsequent to the expiration date of the grant except to liquidate valid commitments that were made on or before the expiration date. (See AAG Chapter III.E.2.) For example, commitment of project funds is valid when specialized (research) equipment is ordered well in advance of the expiration date but where, due to unusual or unforeseen circumstances, delivery of such equipment is delayed beyond the expiration date. The costs of equipment ordered after the expiration date, however, may not be charged to the project.

**3. Prior Approval**

**a. OMB Directive**

NSF has waived most cost related and administrative prior approvals required by OMB Circular A-21 and 2 CFR §215. Grantees should refer to the general conditions referenced in the grant, and AAG Exhibit II-1 for information on NSF required prior approvals.

**b. NSF Prior Approval Policy**

- (i) The funding of items identified in the budget constitutes NSF's authorization for the grantee to incur these costs, provided there is not a specific limitation in the grant language and the costs are otherwise allowable under the cost principles.
- (ii) Costs not specifically budgeted in an NSF award may be allowable provided that prior approval is not required and costs are incurred consistently with the applicable cost principles.

**B. Direct Costs**

The following subsections summarize the allowability of frequently encountered direct cost items:

**1. Salaries, Wages and Fringe Benefits**

**a. Salaries and Wages**

(i) **All Grantees.** All remuneration paid currently or accrued by the organization for employees working on the NSF-supported project during the grant period is allowable to the extent that:

- (a) total compensation to individual employees is reasonable for the work performed and conforms to the established policy of the organization consistently applied to both government and non-government activities; and
- (b) the charges for work performed directly under NSF grants and for other work allocable as indirect costs are determined and documented as provided in the applicable Federal cost principles.

(ii) **Colleges and Universities.** Section J.10 of OMB Circular A-21 establishes criteria for compensation for work performed on government projects by faculty members during and outside the academic year. In addition, the following requirements also apply based on NSF's policy for faculty at academic institutions:

**(a) Senior Project Personnel Salaries & Wages Policies**

In accordance with GPG Chapter II.C.2.g, NSF normally limits salary compensation for senior project personnel on awards made by the Foundation, to no more than two months of their regular salary in any one year. This limit includes salary received from all NSF funded grants. Salary is to be paid at a monthly rate not in excess of the base salary divided by the number of months in the period for which the base salary is paid. As such, proposal budgets submitted should not request, and NSF-approved budgets will not include, funding for an individual investigator or co-principal investigator which exceeds two months of their regular year salary. If anticipated, any compensation for such personnel in excess of two months must be disclosed in the proposal budget, justified in the budget justification, and must be specifically approved by NSF in the award notice.

NSF award funds may not be used to augment the total salary or salary rate of faculty members during the period covered by the term of faculty appointment or to reimburse faculty members for consulting or other time in addition to a regular full-time organizational salary covering the same general period of employment. Exceptions may be considered under certain NSF grants for teaching weekend and evening classes or working at remote locations. If anticipated, any intent to provide salary compensation above the base salary must be disclosed in the proposal budget, justified in the budget justification, and must be specifically approved by NSF in the award notice.

**(b) Administrative and Clerical Salaries & Wages Policies**

In most circumstances, particularly for institutions of higher education, salaries of administrative or clerical staff are included as part of indirect costs (also known as Facilities and Administrative Costs (F&A) for Colleges and Universities). Salaries of administrative or clerical staff may be requested as direct costs for a project requiring an extensive amount of administrative or clerical support and where these costs can be readily and specifically identified with the project with a high degree of accuracy. Salaries for administrative or clerical staff shall be budgeted as a direct cost only if this type of cost is consistently treated as a direct cost in like circumstances for all other projects and cost objectives. The circumstances for requiring direct charging of these services must be clearly described in the budget justification. Such costs, if not clearly justified, may be deleted by NSF. See OMB Circular A-21 (2 CFR Part 220), for examples of where direct charging of administrative salaries may be appropriate.

**(c) Sabbatical Leave**

Unless there are special conditions in an applicable NSF program solicitation or in the award document, charges to an NSF award for services rendered to the project by an individual during his/her sabbatical period are allowable provided that such compensation is:

- proportional to the service rendered;
- in accordance with established institutional sabbatical policies regardless of source of funds; and
- at a rate which, when added to the individual's sabbatical salary rate, does not exceed the individual's base salary rate for the individual's most recent academic year or equivalent prior period.

NSF salary support during sabbatical periods is only intended to make up the difference between sabbatical rate of pay and the individual's base salary rate for periods during which the individual is performing work on an NSF-sponsored project.

**b. Fringe Benefits**

Fringe benefits are allowable as a direct cost (if not included as an indirect cost) in proportion to the salary charged to the grant, to the extent that such payments are made under formally established and consistently applied organizational policies.

## **2. Equipment**

### **a. Related Equipment Guidelines**

Additional NSF guidelines on equipment are found in AAG Chapter IV.D.

### **b. Definitions**

The following definitions, derived from OMB Circular A-21 and 2 CFR §215.2, apply to all NSF grants:

(i) **ACQUISITION COST OF EQUIPMENT** — the net invoice price of the equipment, including the cost of modifications, attachments, accessories or auxiliary apparatus necessary to make the property usable for the purpose for which it was acquired. Other charges, such as the cost of installation, transportation, taxes, duty or protective in-transit insurance, should be included in the unit acquisition cost consistent with the grantee's regular accounting practices.

(ii) **EQUIPMENT** — tangible nonexpendable personal property including exempt property charged directly to the grant having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit. However, consistent with grantee policy, lower limits may be established.

(iii) **GENERAL PURPOSE EQUIPMENT** — permanent equipment (as defined in b., above) that is usable for other than research, medical, scientific or technical activities, whether or not special modifications are needed to make it suitable for a particular purpose. Examples of general purpose equipment include office equipment and furnishings, air conditioning equipment, reproduction and printing equipment, motor vehicles and computer equipment.

(iv) **SPECIAL PURPOSE EQUIPMENT** — permanent equipment (as defined in b., above) which is usable only for research, medical, scientific or technical activities. Examples of special purpose equipment include microscopes, x-ray machines, specialized drilling equipment, spectrometers, and diamond knives.

### **c. Special Purpose Equipment**

Expenditures for special purpose equipment are allowable as direct costs provided the acquisition of items with a unit cost of \$5,000 or more is:

- (i) necessary for the research or activity supported by the grant;
- (ii) not otherwise reasonably available and accessible;
- (iii) of the type normally charged as a direct cost to sponsored agreements; and
- (iv) acquired in accordance with organizational practice.

NSF review and approval is required for all equipment purchases by small business or other commercial organizations.

### **d. General Purpose Equipment**

Expenditures for general purpose equipment are normally unallowable unless the equipment is primarily or exclusively used in the actual conduct of research. NSF review and approval is required for all equipment purchases by small business or other commercial organizations.

## **3. Materials and Supplies**

Materials and supplies are defined as tangible personal property other than equipment, costing less than \$5,000, or other lower threshold consistent with grantee policy. Materials and supplies that are necessary to carry out the project are allowable as prescribed in the governing cost principles.

#### **4. Travel Costs**

- a. Expenses for transportation, lodging, subsistence and related items incurred by project personnel and by outside consultants employed on the project (See AAG Chapter V.B.6a.) who are on travel status on business related to an NSF-supported project are allowable as prescribed in the governing cost principles. The requirements for prior approval detailed in the governing cost principles are waived.
- b. Except as provided in the governing cost principles, the difference between economy airfare and a higher-class airfare is unallowable. A train, bus or other surface carrier may be used in lieu of or as a supplement to air travel at the lowest first-class rate by the transportation facility used. However, if such travel could have been performed by air, the allowance will not normally exceed that for economy airfare.
- c. Foreign travel costs of dependents of key project personnel is allowable provided the:
  - (i) individual is a key person who is essential to the research on a full-time basis;
  - (ii) individual's residence away from home and in a foreign country is for a continuous period of six months or more and is essential to the effective performance of the project; and
  - (iii) dependent's travel allowance is consistent with the policies of the organization administering the grant.
- d. For restrictions concerning the use of non-U.S. Flag carriers while on foreign travel see AAG Chapter VI.G.1.

#### **5. Computer Services**

The costs of services involving the use of highly complex or specialized facilities operated by the organization, such as computing facilities, are allowable provided the charges meet the conditions of the governing cost principles. Awardees should address lease versus purchase factors as required by 2 CFR §215.44.

#### **6. Consultant Services**

##### **a. Outside Consultants**

- (i) Grantees normally are expected to utilize the services of their own officers or employees to the maximum extent in managing and performing the activities supported by NSF grants. Where it is necessary for a grantee to enter into a subaward for the services of persons who are not its officers or employees, it is expected to do so in accordance with written organizational standards which provide for consideration of the factors outlined in the governing cost principles.
- (ii) Costs of professional and consultant services are allowable when reasonable in relation to the services rendered. Payment for consultant services should be comparable to the normal or customary fees charged and received by the consultant for comparable services, especially on non-government contracts and grants.

For all funds awarded prior to March 15, 2006, payment for a consultant's services may not exceed the daily equivalent of the then current maximum rate paid to an Executive Schedule Level IV Federal employee (exclusive of indirect cost, travel, per diem, clerical services, fringe benefits and supplies).

- (iii) In determining the allowability of costs in a particular case, no single factor or any special combination of factors is necessarily determinative. However, the following factors, among others, are relevant:
  - (a) the nature and scope of the service rendered in relation to the service required;
  - (b) the necessity of issuing a subaward for the service considering the organization's capability in the particular area;
  - (c) the past pattern of such costs, particularly in the years prior to the award of government contracts and grants;

- (d) the impact of government contracts and grants on the organization's total activity (e.g., what new problems have arisen);
- (e) whether the proportion of government work to the organization's total activity is such as to influence the organization in favor of incurring the cost, particularly where the services rendered are not of a continuing nature and have little relationship to work under government contracts and grants;
- (f) whether the service can be performed more economically by employment rather than by consulting;
- (g) the qualifications of the individual or concern rendering the service and the normal/customary fees charged and received by the individual for comparable services, especially on non-government contracts and grants; and
- (h) adequacy of the contractual agreement for the service (e.g., description of the service, estimate of time required, rate of compensation and termination provisions).
- (iv) In addition, retainer fees to be allowable must be supported by evidence of bona fide services available or rendered.
- (v) Costs of legal, accounting and consulting services and related costs incurred in connection with organization and reorganization, defense of antitrust suits and the prosecution of claims against the government are unallowable. Costs of legal, accounting and consulting services and related costs incurred in connection with patent infringement litigation are unallowable unless otherwise provided for in the grant.
- (vi) Grantees may hire consultants not identified in the grant proposal or award, provided:
  - (a) it is in accordance with written organizational standards;
  - (b) grant funds are reallocated in accordance with the grantee's policies which are consistent with the governing cost principles; and
  - (c) it is within the limits of the grant funding.

**b. Intra-University Consulting**

Since intra-university consulting is assumed to be undertaken as a university obligation requiring no compensation in addition to full-time salary, the principles summarized in AAG Chapter V.B.1, also apply to those who function as consultants or otherwise contribute to a project conducted by another faculty member of the same institution. However, in unusual cases where consultation is across departmental lines or involves a separate or remote operation, and the work performed by the consultant is in addition to his/her regular appointment, any charges for such work representing extra compensation above the salary are allowable if consistent with established university policy and the applicable cost principles.

**c. Federal Employees**

Employees of the Federal government (other than NSF) may be utilized as lecturers or staff members on a project and may receive compensation and/or expenses if they obtain prior approval from their agencies to participate, and if services to the project are performed outside their regular working hours or while they are on leave status from official duties. Under no circumstances may NSF employees receive compensation from an NSF-supported project.

## **7. Publication, Documentation and Dissemination**

- a. Costs of documenting, preparing, publishing, disseminating and sharing research findings and supporting material are allowable charges against the grant.
- b. Page charges for scientific and engineering journal publication are allowable where:
  - (i) the research papers report work supported by NSF; and
  - (ii) the charges are levied impartially on all research papers published by the journal, whether by non-government or by government authors.
- c. AAG Chapter III.E.2, permits a grantee to transfer from the grant account to an institutional account an amount equal to valid unpaid obligations outstanding at the time a grant expires. A grantee should refer to this section if they have incurred valid commitments for the costs of publication or sharing of research results and it is not possible to effect an actual payment for such charges by the time the final disbursements are due.

## **8. Participant Support Costs**

### **a. General**

- (i) Participant support costs are direct costs for items such as stipends or subsistence allowances, travel allowances and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with meetings, conferences, symposia or training projects. For some educational projects conducted at local school districts, however, the participants being trained are employees. In such cases, the costs must be classified as participant support if payment is made through a stipend or training allowance method. The school district must have an accounting mechanism in place (i.e., sub-account code) to differentiate between regular salary and stipend payments.
- (ii) Funds provided for participant support may not be used by grantees for other categories of expense without the specific prior written approval of the cognizant NSF Program Officer. Therefore, awardee organizations must account for participant support costs separately.
- (iii) Participant support allowances may not be paid to trainees who are receiving compensation, either directly or indirectly, from other Federal government sources while participating in the project. A non-NSF Federal employee may receive participant support allowances from grant funds provided there is no duplication of funding of items and provided no single item of participant cost is divided between his/her parent agency and NSF grant funds.
- (iv) Additional guidelines are found at AAG Chapter VI.D.4 and AAG Chapter VI.E.

### **b. Stipends or Subsistence Allowances**

To help defray the costs of personal maintenance while participating in a conference or training activity, participants may be paid a stipend, per diem or subsistence allowance, based on the type and duration of the activity, as outlined in the pertinent program solicitation and in the grant. Such allowances must be reasonable, in conformance with the usual policy of the grantee organization and limited to the days of attendance at the conference plus the actual travel time required to reach the conference location by the most direct route available. Where meals or lodgings are furnished without charge or at a nominal cost (e.g., as part of the registration fee), the per diem or subsistence allowance will be correspondingly reduced. Although local participants may participate in conference meals and coffee breaks as provided for in AAG Chapter V.C.5, grant funds may not be used to pay per diem or similar expenses for local participants in the conference.

### **c. Travel Allowances**

- (i) Travel costs of participants may be allowable as outlined in the pertinent program solicitation and in the grant. If so, the restrictions regarding class of accommodations (see AAG Chapter V.B.4) and use of U.S.-Flag air carriers (see AAG Chapter VI.G.1) are applicable.



- (ii) In training activities that involve field trips, costs of transportation of participants are allowable.

## **C. Other Direct Costs**

### **1. Rearrangements and Alterations**

a. Except under certain programs, NSF does not normally make grants for construction or facility improvements. However, rearrangement and alteration costs that do not constitute construction (i.e., rearrangements and alterations aggregating less than \$25,000) may be allowable under NSF grants to adapt space or utilities within a completed structure to accomplish the objective of the NSF-supported activity, provided that the:

- (i) grantee is not an individual or a foreign institution;
- (ii) building has a usable life consistent with project purposes and is architecturally suitable for conversion;
- (iii) rearrangement and alteration are essential to the project supported by the grant; and
- (iv) space involved will actually be occupied by the project. In situations where the space is rented, in order for the costs of the rearrangement and alteration to be allowable, the grantee must secure a lease for the length of the project. (See AAG Chapter V.C.3.)

b. Rearrangements and alterations under \$25,000 may be approved by grantees. For rearrangements and alterations expenditures exceeding \$25,000, the grantee must request prior approval from NSF via use of the Notification and Request module in FastLane. Otherwise, any plans for such rearrangement or alteration should be clearly set forth in the proposal. If approved by NSF, such approval will be indicated in the grant. Note that Appendix A, Contract Provisions, of 2 CFR §215 contains various requirements concerning contracts for construction or repair in excess of \$2,000.

### **2. News Release Costs**

In amplification of the provisions of the various cost principles regarding public information service costs, the cost of news releases announcing the results of an NSF-supported project is allowable. In the event the performing organization wishes to join with NSF in a simultaneous news release, arrangements may be made through the NSF's Office of Legislative and Public Affairs, Public Affairs Group, telephone (703) 292-8070. (See AAG Chapter VI.1.2a.)

### **3. Rental or Lease of Facilities or Special Purpose Equipment**

a. Normally the grantee is expected to make appropriate facilities available without direct charge to grant funds. However, on occasion, it is necessary to use facilities not under the control of the grantee. Rental of space off-site may be allowable, for example, for a research project if laboratory facilities or other work areas of a type or coverage not normally available to the grantee are required.

- b. Rental of special purpose equipment is allowable. (See also AAG Chapter V.B.5.)

### **4. Relocation Costs**

a. Relocation costs may be charged to an NSF grant as an other direct cost in accordance with the applicable governing cost principles provided that:

- (i) a proposal for NSF support specifically indicates that the grantee intends to hire a named individual for full-time work on the project;
- (ii) such recruitment action is not disapproved by the grant terms; and
- (iii) the prospective employee or visiting staff member:

- (a) is essential to the project on a full-time basis for a continuous period of at least twelve months; and
  - (b) is regularly located at a place sufficiently removed from the project site that his/her employment necessitates the change.
- b. The amount of actual reimbursement should be in accordance with the grantee's established policy or practice which:
- (i) is in conformance with the applicable governing cost principles;
  - (ii) has been approved by the cognizant governing audit agency; and
  - (iii) is consistently applied.

## **5. Meetings and Conferences**

The points below summarize the allowability of various items of cost associated with conferences, symposia, workshops or other meetings supported by an NSF grant. Any costs charged to an NSF grant also need to be reasonable and directly allocable to the supported activity. Meeting and conference costs identified below, are only allowable if such costs are specifically and clearly identified in the proposed scope of work and budget, as modified and approved by NSF. NSF funds are not otherwise to be spent for meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

- a. **Conference Facilities.** Rental of facilities and necessary equipment is allowable. (See AAG Chapter V.C.3.)
- b. **Supplies.** Purchase of expendable materials and supplies necessary for the meeting is allowable.
- c. **Conference Services.** Costs of translation services and of recording and transcribing the proceedings are allowable.
- d. **Publication Costs.** Costs of publishing the proceedings are allowable if approved in the grant.
- e. **Salaries.** Salaries of professional personnel, editorial and clerical assistants and other staff members are allowable in accordance with AAG Chapter V.B.1, in proportion to the time or effort devoted to the preparation and conduct of the conference and summarizing its results.
- f. **Consultant Services and Speaker Fees.** Reasonable fees and travel allowances and per diem (or meals provided in lieu of per diem) are allowable as prescribed in AAG Chapter V.B.4 and AAG Chapter V.B.6.
- g. **Meals and Coffee Breaks.** When certain meals are an integral and necessary part of a conference (e.g., working meals where business is transacted), grant funds may be used for such meals. Grant funds may also be used for furnishing a reasonable amount of hot beverages or soft drinks to conference participants and attendees during periodic coffee breaks.
- h. **Participant Support Costs.** Participant support costs are allowable as prescribed in AAG Chapter V.B.8. (See also AAG Chapter V.D.1b.)
- i. **Entertainment.** Costs of entertainment, amusement, diversion and social activities and any costs directly associated with such costs (such as tickets to shows or sporting events, meals, lodging, rentals, transportation and gratuities) are unallowable. Travel, meal, and hotel expenses of awardee employees who are not on travel status are unallowable. Costs of employees on travel status are limited to those allowed under the governing cost principles for travel expenses. (See AAG Chapter V.B.4)

- j. Alcoholic Beverages. No Federal funds may be spent on alcoholic beverages.

## **D. Indirect Costs**

As authorized by statute (41 USC §254a) and Comptroller General decision (B-157584) and recommended by governing cost principles, NSF has elected to use predetermined overhead rates where appropriate. When NSF elects not to use predetermined rates, the grant will indicate the type of indirect cost rate applicable to the award.

### **1. NSF Policy**

#### **a. Basic Policy**

(i) It is NSF policy that grantees are entitled to reimbursement from grant funds for indirect costs except where specifically excluded by AAG Chapter V.D.1b, or when the grantee waives entitlement to full reimbursement of indirect costs voluntarily. Also, some types of awarded indirect cost rates limit full recovery (i.e., maximum provisional rates).

(ii) The awarded indirect cost rate is generally based upon a grantee's current Federally negotiated indirect cost rate agreement. When establishing an indirect rate for an award where the grantee does not have a current negotiated rate agreement, NSF will consider the rate proposed in the budget, the grantee's indirect cost proposal submission, the amount of total funding requested and other pertinent financial factors. Since some types of rates limit indirect cost recoveries and require adjustments, grantees receiving awards should ensure that they understand the type of indirect cost rate applicable to the award. Types of indirect cost rates used on NSF awards are as follows:

(a) **Maximum Provisional Rate:** A maximum provisional rate is a temporary rate established for an award to permit funding and reporting of indirect costs pending establishment of a final rate (the rate determined at the end of an accounting period using "actual" direct and indirect cost data). This type of rate limits indirect cost recoveries to the lower of the maximum provisional rate established at the time of award, or the final rate established at the end of an accounting period. Grantees awarded maximum provisional rates are required to submit indirect cost proposals to the NSF Cost Analysis and Audit Resolution Branch within six months after the close of each fiscal year during which the award is active.

(b) **Predetermined Rate:** A predetermined rate is a permanent funding rate established for an award based on an estimate of costs for that period. Grantees may charge NSF projects at the rate(s) stipulated in the award. However, should negotiations between the organization and the cognizant agency result in changes in the approved indirect cost rate not reflected in the NSF award, the grantee may charge NSF projects at the newly negotiated rate in effect at the time direct cost expenditures are made, provided that this method of charging indirect costs is consistently applied and meets generally accepted accounting principles; and provided further that to do so would not:

- reduce or adversely affect the scope of the project;
- result in increased costs over the NSF award amount during the award period;
- decrease the period of support as contemplated in the award; or
- be inconsistent with any special indirect cost provision of the award.

(1) **Special Limitation concerning Predetermined Rates at Colleges and Universities subject to OMB Circular A-21**

OMB Circular A-21 contains an additional restriction on recovery of indirect costs for colleges and universities and other organizations of higher education. These awardees are subject to a further limitation in that the negotiated rate at the time the award is made shall be used throughout the life of the award. The applicable text from OMB Circular A-21 is repeated below:

"7. Fixed rates for the life of the sponsored agreement.

a. Federal agencies shall use the negotiated rates for F&A costs in effect at the time of the initial award throughout the life of the sponsored agreement. "Life" for the purpose of this subsection means each competitive segment of a project. A competitive segment is a period of years approved by the Federal funding agency at the time of the award. If negotiated rate agreements do not extend through the life of the sponsored agreement at the time of the initial award, then the negotiated rate for the last year of the sponsored agreement shall be extended through the end of the life of the sponsored agreement. Award levels for sponsored agreements may not be adjusted in future years as a result of changes in negotiated rates."

(c) Fixed Rate: A fixed rate is a permanent rate established for an award based on an estimate of costs for the award period. However, a fixed rate is fixed both for funding and reimbursement. When NSF funds an award using a fixed indirect cost rate, the grantee may recover indirect costs from grant funds at no more than the fixed rate established for the award. A fixed rate is not subject to adjustment.

(d) Fixed Dollar Amount: A fixed dollar amount limits grantees to the "amount" of indirect costs specified in the approved budget. A fixed indirect dollar amount is not subject to adjustment.

(iii) NSF will not amend a grant solely to provide additional funds for changes in indirect cost rates.

(iv) NSF will generally fund continuing grant increments and supplemental support at the indirect cost rate(s) approved at the time of the initial award. (See AAG Chapter I.E.)

(v) When a project involves off-campus (off-site) activities, NSF normally will fund the indirect cost amount on the basis of the off-campus rate. When a project involves both on- and off-campus activities, NSF normally will fund the indirect cost amount on the basis of the on-campus/off-campus policy reflected in the most recent agreement between the organization and the cognizant Federal agency. In the absence of such an agreed policy, NSF normally will compute the indirect cost amount by applying the on-campus rate to the on-campus base costs and the off-campus rate to the off-campus base costs.

(vi) Any negotiations with respect to business and financial matters on specific grants, including the amount of indirect cost reimbursement, are conducted by the cognizant Grants and Agreements Officer in DGA with an authorized official of the grantee's organization. The NSF Cost Analysis and Audit Resolution Branch provides advisory assistance to the Grants and Agreements Officer.

## **b. Exceptions to Basic Policy**

(i) No Indirect or Limited Reimbursement. Program solicitations may indicate no or limited reimbursement for indirect costs. In addition, NSF generally provides no amounts for indirect costs for the following:

(a) grants to individuals;

(b) grants solely for the support of travel, equipment, construction of facilities, or doctoral dissertation research;

(c) grants in which NSF support is exclusively in the form of fellowships, traineeships or other fixed amounts such as cost-of-education allowances;

(d) participant support costs. However, an allowance for indirect costs associated with participant support costs may be established or negotiated in advance when circumstances indicate that the grantee could be expected to incur significant expenses in administering participant payments (other than salary or other direct expenses being reimbursed under the award). or,

(e) foreign grantees. (Unless the foreign grantee has a previously negotiated rate agreement with a U.S. Federal agency that has a practice of negotiating rates with foreign entities.)

(ii) Independent Research and Development (IR&D). NSF does not typically fund IR&D as part of an indirect cost rate under its grants. IR&D, as defined at FAR 31.205-18(a), includes cost of effort that is not

sponsored by a grant or required in performance of a contract and that consists of projects falling within the four following areas:

- (a) basic research;
- (b) applied research;
- (c) development; and
- (d) systems and other concept formulation studies.

NSF's primary purpose is to support and advance independent research within the scientific and engineering community. NSF has well recognized and established procedures for supporting research through competitive grant awards based on merit review of proposed projects. Reimbursement for independent research and development costs through the indirect cost mechanism could circumvent this competitive process.

To ensure that all projects receive similar and equal consideration, eligible organizations may compete for direct funding of independent research projects they consider worthy of support by submitting proposals for those projects to NSF. Since proposals for these projects may be submitted for direct funding, costs for independent research and development projects are not typically allowable as indirect costs under NSF grants.

(iii) Facilities Capital Cost of Money (FCCM). NSF does not typically fund facilities capital cost of money under its grants. FCCM is defined for commercial organizations at FAR 31.205-10 as "an imputed cost determined by applying a cost-of-money rate to facilities capital employed in contract performance."

## **2. Rebudgeting of Indirect Cost Funds Provided Under NSF Grants**

Grantees may elect to charge less than the full amount of allowable indirect costs to grants in order to pay for additional allowable direct costs. If the actual allowable indirect costs chargeable to a grant is less than those funded by NSF under the grant, the grantee may use available funds, as appropriate, to defray other costs allowable under the grant. If the amount charged for indirect costs exceeds by \$300 or more the amount resulting from application of the final rate, and the amount is not used to defray other costs, the difference must be reported and credited to NSF. (See AAG Chapter III D.)

## **3. NSF Cognizant Organizations**

Organizations for which NSF is their cognizant agency for negotiation of indirect cost rates are required to submit indirect cost proposals, reconciled to financial statements, within six months after the close of each accounting year during which NSF has active awards. Indirect cost proposals should be sent to the Cost Analysis and Audit Resolution Branch.

## **E. Fee Payments under NSF Grants**

Payment of fees (profit) are allowable only if specifically permitted by a program solicitation and only to the extent that it does not exceed the amount negotiated by the Grants and Agreements Officer and specified in the award letter.

## **Chapter VI: Other Post Award Requirements and Considerations**

### **A. Non-Discrimination Statutes**

#### **1. General**

a. A number of statutes bar recipients of Federal financial assistance from excluding persons, because of their race, sex, color, disability, age, or national origin, from participation in Federally supported activities. These include: Title VI of the Civil Rights Act of 1964 (barring discrimination on grounds of race, color, or national origin); Section 504 of the Rehabilitation Act (barring discrimination against individuals with disabilities); and the Age Discrimination Act. Title IX of the Educational Amendments of 1972 bars sex discrimination in Federally assisted education programs or activities. In addition to statutory prohibitions, E.O. 11246 bars various types of discriminatory employment practices under grants for construction. The following sections discuss the application of each of these Acts and E.O. 11246 to NSF grantees.

b. When a recipient of an NSF grant receives an Equal Opportunity Complaint, the original complaint should be sent to the Director, Office of Equal Opportunity Programs, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230.

#### **2. Civil Rights Act of 1964**

##### **a. Background**

Section 602 of the Civil Rights Act of 1964 (42 USC §2000d et seq.) provides that no person in the U.S. shall, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving Federal financial assistance. Section 602 requires that each Government agency which is empowered to extend such financial assistance issue rules or regulations implementing Title VI of the Act with respect to such programs or activities administered by the agency.

##### **b. NSF Regulations**

NSF regulations implementing Title VI of the Civil Rights Act are found at 45 CFR §611. These regulations apply to the grantee and to any subrecipients such as subawardees, contractors and subcontractors of a grantee, and successors in interest (other than subrecipients for commercially available supplies, materials, equipment or general support services). The regulations require that as a condition of approval of an application for assistance, the applicant must execute an Assurance of Compliance, whether or not a similar assurance form has been filed with another Federal agency. (See GPG Exhibit II-6 for additional information.)

##### **c. Civil Rights Certification - Subrecipients**

Before any organization serves as a subrecipient on an NSF grant (for other than the provision of commercially available supplies, materials, equipment or general support services), it must first file an Assurance of Compliance with the grantee.

##### **d. Grant Conditions**

Each NSF grant contains as part of the standard grant conditions an article implementing Title VI.

#### **3. Rehabilitation Act**

##### **a. Background**

Section 504 of the Rehabilitation Act of 1973, as amended (29 USC §794) provides that “no otherwise qualified individual with a disability in the United States...shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance....”

**b. NSF Regulations**

NSF regulations implementing Section 504 are found at 45 CFR §605. With a few changes, these regulations follow closely the regulations issued by the Department of Health and Human Services (DHHS) at 45 CFR §84. These regulations also apply to subrecipients such as subawardees, contractors and subcontractors of a grantee, and successors in interest (other than subrecipients for the provision of commercially available supplies, materials, equipment or general support services).

**c. Section 504 Certification - Subrecipients**

In lieu of requiring grantees to obtain separate certifications from subrecipients receiving financial assistance under an NSF grant, grantees will include in all subawards (for other than the provision of commercially available supplies, materials, equipment or general support services), a certification of compliance comparable to that included in NSF grants.

**d. Grant Conditions**

Each NSF grant contains as part of the standard grant conditions an article implementing Section 504 and the NSF regulations.

**4. Title IX - Sex Discrimination**

**a. Background**

Subject to certain exceptions regarding admission policies at certain religious and military organizations, Title IX of the Education Amendments of 1972 (20 USC §§1681-1686) prohibits the exclusion of persons on the basis of sex from any education program or activity receiving Federal financial assistance. All NSF grantees must comply with Title IX.

**b. NSF Regulations**

NSF regulations implementing Title IX of the Education Amendments of 1972 are found at 45 CFR §618.

**c. Grant Conditions**

Each NSF grant contains, as part of the standard grant conditions, an article implementing Title IX.

**5. Age Discrimination Act**

**a. Background**

The Age Discrimination Act of 1975, as amended (42 USC §§6101 et seq.), provides that pursuant to regulations issued by DHHS “no person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under, any program or activity receiving Federal financial assistance.”

**b. NSF Regulations**

NSF regulations implementing the Age Discrimination Act are found at 45 CFR §617.

**c. Grant Conditions**

Each NSF grant contains, as part of the standard grant conditions, an article implementing the Age Discrimination Act.

## **6. Equal Employment Opportunity under E.O. 11246**

### **a. Background**

E.O. 11246, as amended, requires contractors and subcontractors performing Federally assisted construction projects to provide equal opportunity, without regard to race, color, religion, sex or national origin, to persons employed or seeking employment with them. This E.O. may apply to some NSF grants for construction.

### **b. Grant Conditions**

In instances when E.O. 11246 is applicable, the grant will include an equal opportunity clause in conformance with regulations issued by the Secretary of Labor at 41 CFR §60.

## **B. Protection of Living Organisms**

### **1. Human Subjects**

#### **a. Background**

The grantee is responsible for the protection of the rights and welfare of human subjects involved in activities supported by NSF. All research involving human subjects supported or otherwise subject to regulation by any Federal agency is covered by a policy set forth in a Common Rule, "*Protection of Human Subjects*" ([http://www.access.gpo.gov/nara/cfr/waisidx\\_99/45cfr690\\_99.html](http://www.access.gpo.gov/nara/cfr/waisidx_99/45cfr690_99.html)). Complete instructions on preparation and submission of proposals that involve use of human subjects are available in GPG Chapter II.D.6.

#### **b. NSF Regulation**

NSF's Common Rule on Protection of Human Subjects is available on the NSF website at <http://www.nsf.gov/bfa/dias/policy/docs/45cfr690.pdf>. Guidance about the regulation is available at <http://www.nsf.gov/bfa/dias/policy/guidance.htm#human>.

#### **c. Grant Conditions**

Each NSF grant contains, as part of the standard grant conditions, an article implementing NSF regulations on projects involving research with human subjects.

### **2. Research Involving Recombinant DNA Molecules**

#### **a. Applicability**

This section applies to all research, for which NSF grant funds are used, that falls within the scope of the *Guidelines for Research Involving Recombinant DNA Molecules (NIH Guidelines)* (<http://www4.od.nih.gov/oba/rac/guidelines/guidelines.html>), as amended in January 2001, hereafter referred to as the "Guidelines".

#### **b. Policy**

NSF grantees performing research within the U.S. that falls within the scope of the Guidelines shall comply with the Guidelines, including the procedural requirements and any subsequent revisions as they are published in the Federal Register. Grantee responsibilities include:

(i) Each organization involved in the conduct of NSF-supported recombinant DNA research subject to the Guidelines must have a standing Institutional Biosafety Committee (IBC) as specified in Section IV of the Guidelines.

(ii) Recombinant DNA research subject to the Guidelines must be registered with the IBC indicating compliance with the containment requirements specified in Part III of the Guidelines. IBCs are required to keep



records of recombinant DNA research conducted at their organization in a form that is available to NSF upon request.

**c. Research Requiring Prior Approval of the Director, NIH**

In certain instances research should not be initiated or registered with IBCs prior to approval and determination of containment level by the Director, NIH. Normally such experiments are reviewed by the Recombinant DNA Advisory Committee before a decision is made by the Director, NIH. Such instances are:

- (i) research for which containment levels are not explicitly specified by the Guidelines;
- (ii) research involving experiments prohibited by the Guidelines, i.e., requests for exceptions to the Guidelines; and
- (iii) requests to perform experiments without regard to the containment specified in the Guidelines, i.e., exemptions from the Guidelines.

**d. Recombinant DNA Research Outside the U.S.**

Recombinant DNA research within the scope of the Guidelines that is performed outside of the U.S. using funds provided by NSF for transportation, salaries or direct research expenses must comply with the U.S. or host country standards. If the research is to be carried out in a country that has adopted guidelines comparable to those of the U.S., a document with information and endorsements assuring compliance to the host organization standards must be submitted to NSF. NSF funds may not be used to carry out research using recombinant DNA in a country that has not adopted national guidelines unless the research is in full compliance with the Guidelines and the procedures required for NSF-supported research within the U.S.

**3. Vertebrate Animals**

**a. Background**

The grantee is responsible for the humane care and treatment of any vertebrate animal used or intended for use in such activities as field or laboratory research, development, training, experiments, biological testing or for related purposes supported by NSF grants.

**b. Federal Regulations**

- (i) Any grantee performing research on vertebrate animals<sup>11</sup> shall comply with the Animal Welfare Act [7 U.S.C. 2131 et seq.] and the regulations promulgated thereunder by the Secretary of Agriculture [9 CFR 1.1-4.11] pertaining to the humane care, handling, and treatment of vertebrate animals held or used for research, teaching or other activities supported by Federal awards. The awardee is expected to ensure that the guidelines described in the National Academy of Science (NAS) Publication, "*Guide for the Care and Use of Laboratory Animals*" (1996) are followed and to comply with the *Public Health Service Policy and Government Principles Regarding the Care and Use of Animals* (included as Appendix D to the NAS Guide).
- (ii) During the life of the award, additional IACUC approval must be obtained if the protocols for use of vertebrate animals have been changed substantively from those originally proposed and approved, or if the previous approval is more than three years old. In the event the grantee's multi-project Assurance is cancelled or lapses, the grantee must immediately notify the NSF Grants and Agreements Officer identified in the award.
- (iii) Research facilities subject to the Animal Welfare Act using or intending to use live animals in research and who receive Federal funding are required to register the facility with the Animal and Plant Health Inspection Service (APHIS), U.S. Department of Agriculture. A current listing of licensed animal dealers may also be obtained from APHIS. The location of the nearest APHIS Regional Office, as well as information concerning this and other APHIS activities may be obtained at <http://www.aphis.usda.gov/>.

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<sup>11</sup> In addition to vertebrate animals covered by the Animal Welfare Act, the requirements specified in this coverage also are extended to rats, birds and mice.

(iv) Awards to U.S. grantees for projects involving the care or use of vertebrate animals at a foreign institution or foreign field site also require approval of research protocols by the U.S. grantee's IACUC. If the project is to be funded through an award to a foreign institution or through an individual fellowship award that will support activities at a foreign institution, NSF will require a statement of compliance that the activities will be conducted in accordance with all applicable laws in the foreign country and that the *International Guiding Principles for Biomedical Research Involving Animals* (see <http://www.cioms.ch/>) will be followed.

#### **c. Grant Conditions**

Each NSF grant contains, as part of the standard grant conditions, an article implementing NSF regulations on projects involving research with vertebrate animals.

#### **4. Government Permits and Activities Abroad**

a. For awards that include activities requiring permits from appropriate Federal, state, or local government authorities, the awardee should obtain any required permits prior to undertaking the proposed activities.

b. The awardee should assure that activities carried on outside the U.S. are coordinated as necessary with appropriate U.S. and foreign government authorities and that necessary licenses, permits or approvals are obtained prior to undertaking proposed activities. NSF does not assume responsibility for awardee compliance with the laws and regulations of the country in which the work is to be conducted.

### **C. Construction, Rearrangements and Alterations**

#### **1. Davis-Bacon Act**

The Davis-Bacon Act (40 USC §§276a et seq.) establishes minimum wages to be paid to laborers and mechanics on construction contracts to which the U.S. is a party involving public buildings or public works within the U.S. A number of other statutes have extended this provision to specific Federal grant programs involving construction. However, unless specifically stated in the grant, the Davis-Bacon Act does not normally apply to NSF grants since grantees normally retain title to property acquired under the grant and the construction, if any, is normally on non-Government land.

#### **2. Bonding and Insurance**

The NSF Act (42 USC §1870c) provides NSF with authority to enter into grants, contracts or other agreements without performance or other bonds. Therefore, unless the grant specifically provides otherwise, NSF does not require performance or other bonds or insurance.

#### **3. Seismic Safety of Buildings**

E.O. 12699 *Seismic Safety of Federal and Federally-assisted or Regulated New Building Construction* dated January 5, 1990, requires that consideration be given to seismic hazards in the design of buildings. Very seldom are NSF grantees involved with federally-assisted construction and rarely are new buildings involved. NSF ensures compliance with the Order through its grantees and grantee organizations by inclusion of a specific grant condition in any appropriate grant.

### **D. Intellectual Property**

#### **1. Patents and Inventions**

##### **a. Background**

(i) The disposition of rights to inventions made by small business firms and non-profit organizations, including universities and other institutions of higher education, during NSF-assisted research is governed by Chapter 18 of Title 35 of the USC, commonly called the Bayh-Dole Act. In accordance with a Presidential Memorandum entitled *Government Patent Policy* issued on February 18, 1983 and under the authority of Section 12 of the National Science Foundation Act of 1950, as amended (42 USC §1871), NSF applies the

policies of the Bayh-Dole Act to all its grantees. The Department of Commerce (DOC) is the lead agency for implementing the Bayh-Dole Act and has published guidance to Federal agencies in 37 CFR §401. NSF's implementing rules are published in 45 CFR §650.

(ii) NSF's standard Patent Rights clause, published at 45 CFR §650.4(a) and below at Chapter VI.D.1.c, "Standard Patent Rights Clause" is identical to that prescribed in the DOC guidance (37 CFR §401.14(a)) except that:

(a) NSF has tailored the clause to apply to grants and to identify NSF;

(b) pursuant to Section 401.5(d) of the DOC guidance (37 CFR §401.5(d)), NSF has added to paragraph b. of the clause a stipulation that NSF reserves the right to direct a grantee to transfer to a foreign government or research performer such rights to any subject invention as are required to comply with any international treaty or agreement identified when the grant is made as being applicable to the assisted research;

(c) as permitted by Section 401.5(f) of the DOC guidance (37 CFR §401.5(f)), NSF has added a subparagraph to the end of paragraph f. of the clause to require grantees or their representatives to send NSF confirmations of the Government licenses for subject inventions and of the page of any United States patent application that contains the Federal support clause;

(d) since NSF normally uses the same clause for all subcontractors, the first two subparagraphs of paragraph g. of the clause specified in the DOC guidance have been reduced to one;

(e) paragraph c.1 of the clause has been changed to require that invention disclosures be submitted electronically via the iEdison system; and

(f) paragraph L. of the clause has been changed to require that all communications required by the Patents Rights clause be submitted electronically via the iEdison system unless prior permission is obtained from the NSF Patent Assistant.

#### **b. National Science Foundation Patent Policy**

As authorized by the National Science Board (NSB), the Director of the NSF has adopted the following NSF patent policy.

(i) In accordance with the Bayh-Dole Act and the Presidential Memorandum entitled *Government Patent Policy* issued February 18, 1983, NSF will use the Patent Rights clause prescribed by DOC in all its funding agreements for the performance of experimental, developmental or research work, including grants made to foreign entities, unless NSF determines that some other provision would better serve the purposes of that Act or the interests of the U.S. and the general public.

(ii) In funding agreements covered by a treaty or agreement that provide that an international organization or foreign government, research institute or inventor will own or share patent rights, NSF will acquire such patent rights as are necessary to comply with the applicable treaty or agreement.

(iii) If a grantee elects not to retain rights to an invention, NSF will allow the inventor to retain the principal patent rights unless the grantee, or the inventor's employer, if other than the grantee, shows that it would be harmed by that action.

(iv) NSF will normally allow any patent rights not wanted by the grantee or inventor to be dedicated to the public through publication in scientific or engineering journals or as a statutory invention registration. If another Federal agency is known to be interested in the relevant technology, however, NSF may give it an opportunity to review and patent the invention so long as that does not inhibit the dissemination of the research results to the research community.

### **c. Standard Patent Rights Clause**

Each NSF grant contains as part of the standard grant conditions an article implementing the standard patent rights clause.

### **d. Electronic Invention Handling**

Grantees are encouraged to use the iEdison System to disclose NSF subject inventions. Detailed instructions for use of that system are provided at <http://s-edison.info.nih.gov/iEdison/> and should be followed for NSF subject inventions except that:

a. All communications required must be provided electronically as a PDF or TIFF file through iEdison unless prior permission for another form of submission is obtained from the NSF Patent Assistant.

b. NSF does not require either an Annual Utilization Report or a Final Invention Statement and Certification.

Questions on use of iEdison and requests for permission to submit material in other forms may be sent to the NSF Patent Assistant at [patents@nsf.gov](mailto:patents@nsf.gov), or at the Office of the General Counsel, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230.

## **2. Copyright**

### **a. Rights to Copyrightable Material**

The following principles governing the treatment of copyrightable material produced under NSF grants were adopted by the NSB.

(i) NSF normally will acquire only such rights to copyrightable material as are needed to achieve its purposes or to comply with the requirements of any applicable government-wide policy or international agreement.

(ii) To preserve incentives for private dissemination and development, NSF normally will not restrict, or take any part of income earned from, copyrightable material except as necessary to comply with the requirements of any applicable government-wide policy or international agreement.

(iii) In exceptional circumstances, NSF may restrict or eliminate an awardee's control of NSF-supported copyrightable material and of income earned from it, if NSF determines that this would best serve the purposes of a particular program or grant.

### **b. Standard Copyrightable Material Clause**

Unless a special copyrightable material clause has been negotiated, each NSF grant that relates to scientific or engineering research contains as part of the standard grant conditions an article implementing the standard copyrightable material clause.

## **3. Special Patent and Copyright Situations**

### **a. Special Grant Provisions**

At the request of the prospective grantee or on recommendation from NSF staff, a Grants and Agreements Officer, with the concurrence of the cognizant Program Officer, may negotiate special patent or copyright provisions when he/she determines that exceptional circumstances require restriction or elimination of the right of a prospective grantee to control principal rights to subject inventions or writings in order to better achieve the objectives of the program, the National Science Foundation Act, or (in the case of inventions) Chapter 18 of Title 35 of the USC. Every special copyright or patent provision will allow the grantee, after an invention has been made or copyrightable material created, to request that it be allowed to retain principal rights to that invention or

material, unless doing so would be inconsistent with an obligation imposed on NSF by statute, international agreement or pact with other participants in, or supporters of, the research.

**b. Grants Not Primarily for Research**

(i) Grants not primarily intended to support scientific or engineering research generally do not contain patent or copyrightable material provisions. Examples of such grants are travel, conference and equipment grants.

(ii) NSF Fellowships and Traineeships. In accordance with Section 212 of Title 35 of the USC, NSF claims no rights to inventions made by fellows or trainees. The following provision will be included in each fellowship or traineeship program solicitation and made part of the grant:

**INTELLECTUAL PROPERTY RIGHTS**

The National Science Foundation claims no rights to any inventions or writings that might result from its fellowship or traineeship grants. However, fellows and trainees should be aware that the NSF, another Federal agency, or some private party may acquire such rights through other support for particular research. Also, fellows and trainees should note their obligation to include an Acknowledgment and Disclaimer in any publication.

[END OF PROVISION]

**c. Grants Affected by International Agreements**

(i) Many of the bilateral and multilateral treaties and agreements underlying NSF's international cooperative research programs contain provisions on allocation of rights to inventions or writings. These sometimes require an allocation of rights different from that provided by the standard Copyrightable Material or Patent Rights clauses. In those cases, the standard clauses will be modified through the addition of the following to the grant:

“This project is supported under the cooperative program listed below. Your rights in inventions, writings, and data may be affected.”

The applicable agreement or treaty will be identified immediately beneath that sentence.

(ii) After an invention is disclosed to the Patent Assistant, the grantee of a grant subject to an international agreement will be informed as to what rights, if any, it must transfer to foreign participants. Grantees also may ask the NSF Program Officer for copies of the identified international agreement before or after accepting a grant.

**4. Dissemination and Sharing of Research Results**

a. Investigators are expected to promptly prepare and submit for publication, with authorship that accurately reflects the contributions of those involved, all significant findings from work conducted under NSF grants. Grantees are expected to permit and encourage such publication by those actually performing that work, unless a grantee intends to publish or disseminate such findings itself.

b. Investigators are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, samples, physical collections and other supporting materials created or gathered in the course of work under NSF grants. Grantees are expected to encourage and facilitate such sharing. Privileged or confidential information should be released only in a form that protects the privacy of individuals and subjects involved. General adjustments and, where essential, exceptions to this sharing expectation may be specified by the funding NSF Program or Division/Office for a particular field or discipline to safeguard the rights of individuals and subjects, the validity of results, or the integrity of collections or to accommodate the legitimate interest of investigators. A grantee or investigator also may request a particular adjustment or exception from the cognizant NSF Program Officer.

c. Investigators and grantees are encouraged to share software and inventions created under the grant or otherwise make them or their products widely available and usable.

d. NSF normally allows grantees to retain principal legal rights to intellectual property developed under NSF grants to provide incentives for development and dissemination of inventions, software and publications that can enhance their usefulness, accessibility and upkeep. Such incentives do not, however, reduce the responsibility that investigators and organizations have as members of the scientific and engineering community, to make results, data and collections available to other researchers.

e. NSF program management will implement these policies for dissemination and sharing of research results, in way appropriate to field and circumstances, through the proposal review process; through award negotiations and conditions; and through appropriate support and incentives for data cleanup, documentation, dissemination, storage and the like.

## **5. Tangible Property**

### **a. Background**

Some NSF grants support collection or creation of tangible property, such as insects, marine life, drilling core samples and genetically-altered microorganisms. As used in this section “tangible property” means any personal property other than equipment (see AAG Chapter V.B.2), and intellectual property.

### **b. Legal Rights to Tangible Property**

Unless otherwise provided in the grant, all legal rights to tangible property collected or created during NSF-assisted research remain with the grantee or investigators as determined by the policies of the organization. As members of the scientific and engineering community, both grantees and investigators are responsible for making such tangible property appropriately available to other researchers.

## **E. Publication / Distribution of Grant Materials**

### **1. NSF Policy**

NSF advocates and encourages open scientific and engineering communication. NSF expects significant findings from research it supports to be promptly submitted for publication, with authorship that accurately reflects the contributions of those involved.

### **2. Costs**

Cost of documenting, preparing, publishing, disseminating and sharing research findings and supporting material are allowable charges against the grant. (See AAG Chapter V.B.7.)

### **3. Responsibilities**

Unless otherwise provided in the grant, preparation, content, editing, identification of authorship and submission for publication of significant research findings are the responsibility of the investigators, consistent with such policies and procedures as the grantee may prescribe.

### **4. Grantee Obligations**

a. Acknowledgement of Support. Unless otherwise provided in the grant, the grantee is responsible for assuring that an acknowledgment of NSF support is made:

(i) in any publication (including Web pages) of any material based on or developed under this project, in the following terms:

"This material is based upon work supported by the National Science Foundation under Grant No. (NSF grant number)."

(ii) NSF support also must be orally acknowledged during all news media interviews, including popular media such as radio, television and news magazines.

b. Disclaimer. The awardee is responsible for assuring that every publication of material (including World Wide Web pages) based on or developed under this award, except scientific articles or papers appearing in scientific, technical or professional journals, contains the following disclaimer:

"Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation."

c. Copies for NSF. The grantee is responsible for assuring that the cognizant NSF Program Officer is provided access to, either electronically or in paper form, a copy of every publication of material based on or developed under this award, clearly labeled with the award number and other appropriate identifying information, promptly after publication.

d. Grantees should also note their obligations in regard to copyrights (see AAG Chapter VI.D.2 ) and their responsibilities as members of the scientific and engineering community to disseminate and share research results (see AAG Chapter VI.D.4).

## **F. Program Income**

### **1. Background**

The following provisions implement the applicable portions of 2 CFR §215.24 on program income as well as the principle on income from copyrightable material adopted by the NSB. (See AAG Chapter VI.D.2a.)

### **2. Definition**

PROGRAM INCOME means gross income earned by the grantee that is directly generated by a supported activity or earned as a result of the grant. Program income includes, but is not limited to, income from fees for services performed, the use or rental of real or personal property acquired under the grant, the sale of commodities or items fabricated under the grant, license fees for, and royalties on, copyrights and interest on loans made with grant funds. Interest earned on advances of Federal funds is not program income. Program income does not include the receipt of principal on loans, rebates, credits, discounts, etc., or interest earned on any of them.

### **3. NSF Policy**

a. Standard Treatment. Unless otherwise specified in the grant, program income received or accruing to the grantee during the period of the grant is to be retained by the grantee, added to the funds committed to the project by NSF, and thus used to further project objectives. The grantee has no obligation to NSF with respect to: 1) license fees and royalties for copyrighted material, patents, patent applications, trademarks and inventions; or 2) program income received beyond the period of the grant.

b. Special Treatment. In exceptional circumstances, the NSF Grants and Agreements Officer, in collaboration with Program Officers and other appropriate NSF offices, may approve use of a special grant provision to restrict or eliminate a grantee's control of income earned through NSF-supported activities if it determines that this would best serve the purposes of a particular program or grant. The special provisions may require the Federal share of program income be kept in a separate account, reported on and/or remitted for such periods as may be reasonable under the circumstances.

## **G. International Considerations**

### **1. Travel to Foreign Countries**

#### **a. Policy**

(i) Expenses for transportation, lodging, subsistence and related items incurred by project personnel and by outside consultants employed on the project, (see AAG Chapter V.B.4) who are on travel status on business related to an NSF-supported project are allowable as prescribed in the governing cost principles. The requirements for prior approval detailed in the governing cost principles are waived.

(ii) Support for the foreign travel of an investigator's dependents is allowable only under the conditions identified in AAG Chapter V.B.4.

#### **b. Use of U.S.-Flag Air Carriers**

(i) The General Services Administration issued an amendment to the Federal Travel Regulations in the November 13, 1998 edition of the Federal Register (Vol. 63, No. 219). The amendment relates to the use of U.S. Flag air carriers under the provisions of 49 USC §40118, which is commonly referred to as the Fly America Act.

(ii) Any air transportation to, from, between or within a country other than the U.S. of persons or property, the expense of which will be assisted by NSF funding, must be performed by, or under a code-sharing arrangement with, a U.S.-Flag air carrier if service provided by such a carrier is "available" (see Comp. Gen. Decision B-240956, dated September 25, 1991). Tickets (or documentation for electronic tickets) must identify the U.S.-Flag air carrier's designator code and flight number.

(iii) For the purposes of this requirement, U.S.-Flag air carrier service is considered "available" even though:

(a) comparable or a different kind of service can be provided at less cost by a Foreign-Flag air carrier;

(b) Foreign-Flag air carrier service is preferred by or is more convenient for NSF or traveler; or

(c) service by a Foreign-Flag air carrier can be paid for in excess foreign currency.

(iv) The following rules apply unless their application would result in the first or last leg of travel from or to the U.S. being performed by a Foreign-Flag air carrier:

(a) a U.S.-Flag air carrier shall be used to destination or, in the absence of direct or through service, to the farthest interchange point on a usually traveled route;

(b) if a U.S.-Flag air carrier does not serve an origin or interchange point, a Foreign-Flag air carrier shall be used only to the nearest interchange point on a usually traveled route to connect with a U.S.-Flag air carrier; or

(c) if a U.S.-Flag air carrier involuntarily reroutes the traveler via a Foreign-Flag carrier, the Foreign-Flag air carrier may be used notwithstanding the availability of alternative U.S.-Flag air carrier service.

#### **c. Use of Foreign-Flag Air Carriers**

(i) Travel To and From the U.S. Use of a Foreign-Flag air carrier is permissible if the airport abroad is:

(a) the traveler's origin or destination airport, and use of U.S.-Flag air carrier service would extend the time in a travel status by at least 24 hours more than travel by a Foreign-Flag carrier; or

(b) an interchange point, and use of U.S.-Flag air carrier service would increase the number of aircraft changes the traveler must make outside of the U.S. by 2 or more, would require the traveler to wait four



hours or more to make connections at that point, or would extend the time in a travel status by at least six hours more than travel by a Foreign-Flag air carrier.

- (ii) Travel Between Points Outside the U.S. Use of a Foreign-Flag air carrier is permissible if travel by a:
  - (a) Foreign-Flag air carrier would eliminate two or more aircraft changes en route;
  - (b) U.S.-Flag air carrier would extend the time in a travel status by at least six hours more than travel by a Foreign-Flag air carrier and the travel is not part of the trip to or from the U.S.; or
  - (c) U.S.-Flag air carrier would require a connecting time of four hours or more at an overseas interchange point.
- (iii) Short Distance Travel. For all short distance travel, regardless of origin and destination, use of a Foreign-Flag air carrier is permissible if the elapsed travel time on a scheduled flight from origin to destination airport by a Foreign-Flag air carrier is three hours or less and service by a U.S.-Flag air carrier would double the travel time.

## **2. Charter Flights**

Because of the risk of catastrophic loss, NSF does not encourage the use of charter flights as a means of mass transportation for groups of scientists and engineers nor does it make arrangements for purchase of charter flight airline tickets.

## **3. Projects in a Foreign Country**

- a. For awards that include activities requiring permits from appropriate Federal, state, or local government authorities, the grantee should obtain any required permits prior to undertaking the proposed activities.
- b. The grantee must comply with the laws and regulations of any foreign country in which research is to be conducted. Areas of potential concern include: (1) requirements for advance approval to conduct research or surveys; (2) special arrangements for the participation of foreign scientists and engineers; and (3) special visas for persons engaged in research or studies. NSF does not assume responsibility for grantee compliance with the laws and regulations of the country in which the work is to be conducted.
- c. The grantee also should assure that activities carried on outside the U.S. are coordinated as necessary with appropriate U.S. and foreign government authorities and that necessary licenses, permits or approvals are obtained prior to undertaking the proposed activities.
- d. NSF-Supported Activities in Greenland. All research projects in Greenland must be approved in advance by the Government of Denmark. Applications for projects in which U.S. citizens and U.S. nationals are involved in any way (logistical, operational and/or financial support) shall be submitted to the Danish Government through diplomatic channels (i.e., through the U.S. Department of State and the American Embassy, Copenhagen) to the Danish Ministry of Foreign Affairs. Application forms, deadline dates and instructions are available from the Director, Office of Polar Programs, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230.

## **4. Passports and Visas**

NSF assumes no responsibility for securing passports or visas required by any person because of participation in an NSF-supported project. It should be noted that some countries that normally do not require visas for tourists do require special visas for scientists and engineers engaged in research or studies.

## **5. International Travel Grants**

Funding Limitations. Funds for international travel grants will normally not exceed the cost of a round-trip, economy class airline ticket between the approved points of origin and destination. Group travel grants awarded to a university, professional society or other non-profit organization to enable it to coordinate U.S.

participation in one or more scientific or engineering meetings held abroad may include a flat rate of \$50 per traveler for the general administration of this type of project. NSF international travel grants may not be supplemented by funds from any other NSF grant or fellowship.

## **H. Intergovernmental Review of Federal Programs**

The Foundation's regulation on Intergovernmental Review of National Science Foundation Programs and Activities is published in 45 CFR Part 660.

The Federal Assistance Award Data System (FAADS) <http://www.census.gov/govs/www/faads.html> notifies the States of Federal assistance awards. FAADS is a computer-based management information system that provides information on assistance awards, including NSF grants, on a quarterly basis. These reports are distributed to the States, and meet the objective of 31 USC §6502.

## **I. Handling of Information**

### **1. Questionnaires: Data Collection Under NSF Grants**

#### **a. Paperwork Control**

Under the OMB regulation, *Controlling Paperwork Burdens on the Public* (5 CFR §1320), if a grantee obtains information from ten or more persons by means of identical questions, it is considered to be "sponsored" by NSF only if:

- (i) the grantee is collecting the information at the specific request of NSF; or
- (ii) the terms of the grant require specific approval by NSF of the collection or its procedures.

If either of these conditions is met, OMB approval of the data collection is generally required and grantees should obtain the necessary control number from the cognizant NSF Program Officer.

#### **b. NSF Policy**

Data collection activities of NSF grantees are the responsibility of grantees, and NSF support of a project does not constitute NSF approval of the survey design, questionnaire content or data collection procedures. No representation may be made to respondents that such data are being collected for, or in association with, NSF or the government. However, this requirement is not intended to preclude mention of NSF support of the project in response to an inquiry or acknowledgment of such support in any publication of this data (see AAG Chapter VI.E.4).

### **2. Release of Information by NSF**

#### **a. Press Releases**

Grants for projects which appear to be of special interest to the general public may be made the subject of an NSF or joint NSF/grantee organization press release to the news media. (See AAG Chapter V.C.2.)

#### **b. Open Government Legislation**

(i) Pursuant to the Freedom of Information Act (FOIA) (5 USC §552), NSF will provide agency records, with certain exceptions, if the request is in writing, includes the requester's name and mailing address, is clearly identified as a FOIA request, and describes the records sought with sufficient specificity to permit identification. The requester must also agree to pay fees that are chargeable under the NSF regulations. Detailed procedures are contained in 45 CFR §612. Further information is available at <http://www.nsf.gov/policies/foia.jsp>.

(ii) The Government in the Sunshine Act (5 USC §552b) requires that all meetings of the National Science Board be open to public observation unless the subject falls within one of ten exemptions. NSF's Sunshine Act regulations are contained in 45 CFR §614. The Sunshine Act and the FOIA cited above, may require NSF to

release to the public information, correspondence and documents received by NSF from grantees, unless they fall within the Acts' limited exceptions.

### **c. Release of Project Reports**

NSF expects significant findings from research it supports to be promptly submitted for publication. To the extent permitted by law, NSF will honor requests from grantees that release of Annual and Final Project Reports be delayed to permit orderly dissemination of significant findings through refereed channels. Unless such a request is received or material is marked as proprietary, such reports may be made available to others without notice to the grantee. Information, the disclosure of which might invade personal privacy, will be redacted before release.

### **J. Tax Status**

Determination of the tax status of an organization or person receiving compensation in any form as a result of an NSF grant is the responsibility of the IRS, State and local tax authorities and the courts.

### **K. Protection of Properties in the National Register of Historic Places**

NSF is required by 16 USC §470f to take into account the effect of grant activities on properties included in the National Register of Historic Places. Occasionally, an NSF grant may involve activities that require mitigation or other actions under the National Historic Preservation Act and implementing regulations of the Advisory Council on Historic Preservation (36 CFR §800). In such cases, as deemed appropriate by NSF, conditions executing the goals of the National Historic Preservation Act may be included in the grant and grantees or prospective grantees may be required to coordinate with State or local historical preservation officers.

### **L. National Security**

NSF awards are intended for unclassified, publicly releasable research. The awardee will not be granted access to classified information. NSF does not expect that the results of the research project will involve classified information.

If, however, in conducting the activities supported under an award, the PI is concerned that any of the research results involve potentially classifiable information that may warrant Government restrictions on the dissemination of the results, the PI should promptly notify the cognizant NSF Program Officer.

### **M. Miscellaneous**

#### **1. Liabilities and Losses**

NSF assumes no liability with respect to accidents, bodily injury, illness, breach of contract, any other damages or loss, or with respect to any claims arising out of any activities undertaken with the financial support of an NSF grant, whether with respect to persons or property of the grantee or third parties. The grantee is advised to insure or otherwise protect itself or others, as it may deem desirable.

#### **2. Pre-College Students and Experimental Curriculum Development Projects**

As required by 42 USC §1869 a and b, grantees of projects which involve pre-college students in research or development, or pilot-testing, evaluation or revision of, experimental or innovative curriculum development projects will:

a. provide to the school board, or comparable authority responsible for the schools considering participation in the project, information concerning the need for and purposes of, the particular education project, the proposed content of the material to be used, the expected benefits to be derived and other information to assist the jurisdiction in arriving at a decision on participation;

- b. obtain written approval for participation in the project activities after the responsible authority has carried out its procedures;
- c. provide information and materials to the responsible school authority to assist it in carrying out its own established procedures regarding the participation of students in project activities;
- d. provide information to NSF describing compliance with the above provisions; and
- e. provide in every publication, testing or distribution agreement involving instructional material developed under a grant (including but not limited to teacher's manuals, textbooks, films, tapes or other supplementary material) that such material will be made available within the school district using such material, for inspection by parents or guardians of children engaged in educational programs or projects of that school district.

### **3. Use of Metric Measurements**

The Metric Conversion Act of 1975 (15 USC §§205a-k) and E.O. 12770 (3 CFR, §1991 comp.) encourage Federal agencies to use the Metric System in procurement, grants and other business-related activities. The NSF grant will contain a provision encouraging PI/PDs to submit project reports, final reports, other reports and publications produced under grants that employ the metric system of measurements.

## **Chapter VII: Grant Administration Disputes and Misconduct**

### **A. Suspension and Termination Procedures**

#### **1. Definitions**

- a. SUSPENSION is an action by NSF that temporarily withholds Federal support of a project pending corrective action by the grantee or a decision by NSF to terminate the grant.
- b. TERMINATION is the cancellation of a grant, in whole or in part, at any time prior to its expiration.

#### **2. Suspension and Termination**

##### **a. NSF Policy**

- (i) A grant may be suspended or terminated in whole or in part in any of the following situations by:
  - (a) NSF when the grantee has materially failed to comply with the terms and conditions of the grant;
  - (b) NSF when the Foundation has other reasonable cause;
  - (c) NSF when ordered by the Deputy Director under NSF's Regulation on Research Misconduct (45 CFR §689);
  - (d) NSF and the grantee by mutual agreement (if NSF and the grantee cannot reach an agreement, NSF reserves the right to unilaterally terminate the grant); or
  - (e) the grantee on written notice to NSF setting forth the reasons for such action, the effective date, and, in the case of partial termination, the portion to be terminated or suspended (with the understanding that if NSF determines that the unterminated portion will not accomplish the purposes of the grant it may suspend or terminate the entire grant).
- (ii) Normally, action by NSF to suspend or terminate a grant will be taken only after the grantee has been informed by NSF of the proposed action, or informed of any deficiency on its part and given an opportunity to correct it. NSF, however, may immediately suspend or terminate a grant without notice when it believes such action is reasonable to protect the interests of the government.
- (iii) No costs incurred during a suspension period or after the effective date of a termination will be allowable, except those costs which, in the opinion of NSF, the grantee could not reasonably avoid or eliminate, or which were otherwise authorized by the suspension or termination notice, provided such costs would otherwise be allowable under the terms of the grant and the governing cost principles.
- (iv) Within 30 days of the termination date the grantee will furnish a summary of progress under the grant and an itemized accounting of costs incurred prior to the termination date or pursuant to (iii) above. Final allowable costs under a termination settlement shall be in accordance with the terms of the grant, including this section, and the governing cost principles, giving due consideration to the progress under the grant. In no event will the total of NSF payments under a terminated grant exceed the grant amount or the NSF pro rata share when cost sharing was anticipated, whichever is less.
- (v) A notice of termination other than by mutual agreement and/or the final settlement amount may be subject to review pursuant to AAG Chapter VII.B.

## **b. Procedures for Suspension or Termination by NSF**

(i) When it is believed that a grantee has failed to comply with one or more of the terms and conditions of a grant, the NSF Grants and Agreements Officer will normally advise the grantee in writing of the nature of the problem and that failure to correct the deficiency may result in suspension or termination of the grant. The grantee will be requested to respond in writing within 30 calendar days of the date of such letter, describing the action taken or the plan designed to correct the deficiency. Copies of such correspondence will be furnished to the PI/PD and to the NSF Program Officer. NSF, however, may immediately suspend or terminate a grant without notice when it believes such action is reasonable to protect the interests of the government.

(ii) If a satisfactory response is not received within the above period, the NSF Grants and Agreements Officer may issue a notice immediately suspending authority to further obligate grant funds, in whole or in part. Notice of suspension is sent to the Authorized Organizational Representative, with a copy to the PI/PD. Within NSF, copies are furnished to the NSF Division of Financial Management and to the NSF Program Officer. The notice will set forth the terms of the suspension and its effective date.

(iii) Normally, the suspension will remain in effect for a maximum of 60 days to allow the grantee to take corrective action. In the event that the deficiency is not corrected to the satisfaction of NSF, the NSF Grants and Agreements Officer may issue a notice of termination, addressed as in b., above. The notice will set forth the reasons for the action and its effective date.

(iv) The remedies described in AAG Chapter VII.B do not preclude a grantee being subject to debarment and suspension under the OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement) published at 2 CFR §180 and NSF's Implementation of the OMB Guidelines, located at 2 CFR Chapter XXV.

(v) Suspension or termination due to research misconduct will be imposed as provided in that regulation.

## **3. Termination by Mutual Agreement**

### **a. NSF Policy**

Circumstances may arise in which either NSF or the grantee wishes to terminate a project. If both parties agree that continuation of the project would not produce results commensurate with the further expenditure of funds, or if there arises any other reason, the grant may be terminated by mutual agreement.

### **b. Procedures**

(i) If the grantee wishes to terminate the project, the Authorized Organizational Representative should advise the NSF Grants and Agreements Officer in writing and send a copy to the NSF Program Officer.

(ii) If NSF wishes to terminate the project, the NSF Grants and Agreements Officer will advise the grantee's Authorized Organizational Representative in writing and send copies to the PI/PD and the NSF Program Officer.

(iii) Within 30 days after receipt of request from either party for termination by mutual agreement, the other party will provide an appropriate written response. In the event of disagreement between the parties, the NSF Grants and Agreements Officer will make a final decision, subject to the review procedures prescribed by AAG Chapter VII.B.

(iv) Following termination, grant closeout procedures will be initiated.

## **4. NSF Suspension or Termination Review Procedure**

Grantees should refer to AAG Chapter VII.B.3 for procedures to request review of a suspension or termination notice. Pending resolution of the request for review, a notice of termination shall remain in effect.

## **B. Informal Resolution of Grant Administration Disputes**

### **1. Background**

Consistent with the *Recommendation on Grant Disputes* by the Administrative Conference of the U.S., and with the intent of the provisions of Alternative Dispute Resolution, the Foundation provides the informal resolution processes described below concerning disputes or disagreements that may arise over Grants and Agreements Officer post-award decisions under an NSF grant.

### **2. Scope of Post-Award Disputes Covered**

The disputes below are covered under the process described in AAG Chapter VII.B.3:

- a. cost disallowances pursuant to a Grants and Agreements Officer's decision (e.g., specific disallowances under an individual grant or as a result of an audit report);
- b. termination orders; and
- c. the final settlement amount under a termination.

### **3. Procedures**

a. The grantee should submit a certified letter to the Director, Division of Grants and Agreements (DGA), National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230, noting the grantee's disagreement or dispute and identifying the NSF Grants and Agreements Officer's decision in question, giving reasons for the request for review and providing any other material pertinent to the request.

b. The letter to the Director, DGA, must be postmarked no later than 30 days after the date of the letter notifying the grantee of the decision in question. The time for filing a request for review is strictly enforced and no extensions for the purpose of preparing it will be granted.

c. The request for review need not follow a prescribed format; however, it must contain a full statement of the grantee's position with respect to the disputed matter and the facts and reasons in support of the grantee's position. Requests will be reviewed if the grantee submits new information (which was unavailable at the time of the original decision); if an error in fact or application of NSF policy is noted in the original decision; or improper procedures were followed in the original decision.

d. The Director, DGA, will review or designate one or more individuals to review the matter. One reviewing official will be at least at a management level equivalent to the official who made the decision that is being reviewed. In no case, will the review be undertaken by any individual involved with the decision or involved in recommending and/or monitoring the scientific and engineering aspects of the project or responsible for negotiating and/or administering its business aspects.

e. The designated individual(s) will review and consider all relevant information available. A report which identifies the conclusion and recommendation will be completed and in disputes covered under:

(i) AAG Chapter VII.B.2a and Chapter VII.B.2b, the report will be completed within 30 days and forwarded to the Director, DGA or his/her designee for a final and unappealable written decision for the agency. The Director, DGA or his/her designee will communicate the decision in writing to the grantee, normally within 15 days of receipt of the report, unless otherwise specified by NSF.

(ii) AAG Chapter VII.B.2c, the report will be completed within 90 days and forwarded to the NSF Deputy Director or his/her designee. The NSF Deputy Director or his/her designee will make the final and unappealable decision for the agency and will communicate the decision in writing to the grantee within 15 days of receipt of the report unless otherwise specified by NSF.

## **C. Research Misconduct**

RESEARCH MISCONDUCT means fabrication, falsification, or plagiarism in proposing or performing research funded by NSF, reviewing research proposals submitted to NSF, or in reporting research results funded by NSF.

### **1. NSF Policies and Responsibilities**

a. The NSF will take appropriate action against individuals or organizations upon a determination that misconduct has occurred. It may also take interim action during an investigation. Possible actions include sending a letter of reprimand to the individual or organization, requiring prior NSF approval of particular activities by an individual or organization, requiring special assurances of compliance with particular policies, restricting designated activities or expenditures under particular grants, suspending or terminating grants, debarring or suspending an individual or organization and prohibiting participation by an individual as an NSF reviewer, advisor or consultant.

b. NSF will find misconduct only after careful inquiry and investigation by a grantee organization, by another Federal agency or by NSF. An "inquiry" consists of preliminary information-gathering and preliminary fact-finding to determine whether an allegation or apparent instance of misconduct has substance. An investigation must be undertaken if the inquiry determines the allegation or apparent instance of misconduct has substance. An "investigation" is a formal development, examination, and evaluation of a factual record to determine whether misconduct has taken place or, if misconduct has already been confirmed, to assess its extent and consequences or determine appropriate action.

c. Before NSF makes any final finding of misconduct or takes any final action on such a finding, NSF will normally afford the accused individual or organization notice, a chance to provide comments and rebuttal and a chance to appeal. In structuring procedures in individual cases, NSF may take into account procedures already followed by other entities investigating or adjudicating the same allegation of misconduct.

d. Debarment or suspension for misconduct will be imposed only after further procedures described in applicable debarment and suspension regulations (2 CFR §180 and 2 CFR Chapter XXV).

e. The Office of Inspector General oversees investigations of research misconduct and conducts any NSF inquiries and investigations into suspected or alleged research misconduct.

f. The Deputy Director adjudicates research misconduct proceedings and the Director decides appeals.

g. After receiving an investigation report, the subject's rebuttal and recommendations of the OIG, the NSF Deputy Director may initiate further investigation or hearings or order interim or final actions. A written disposition specifying actions to be taken will be sent to affected individuals or organizations and will include instructions on how to pursue an appeal to the Director of the Foundation.

### **2 Role of Grantees**

a. Grantees bear primary responsibility for prevention and detection of misconduct. In most instances, NSF will rely on grantees to promptly:

- (i) initiate an inquiry into any suspected or alleged misconduct;
- (ii) conduct a subsequent investigation, if the inquiry finds substance;
- (iii) take action necessary to ensure the integrity of research, the rights and interests of research subjects and the public and the observance of legal requirements or responsibilities; and
- (iv) provide appropriate safeguards for subjects of allegations as well as informants.

b. If a grantee wishes NSF to defer independent inquiry or investigation, it should:

- (i) inform NSF immediately if an initial inquiry finds substance;



- (ii) keep NSF informed during such an investigation;
  - (iii) notify NSF even before deciding to initiate an investigation or as required during an investigation:
    - (a) if there is reasonable indication of possible violations of civil or criminal law;
    - (b) if public health or safety are at risk;
    - (c) if NSF's resources, reputation, or other interests need protecting;
    - (d) if Federal action may be needed to protect the interests of a subject of the investigation or of others potentially affected;
    - (e) if the research community or the public should be informed; or
    - (f) if research activities should be suspended.
  - (iv) provide NSF with the final report from any investigation.
- c. If a grantee wishes NSF to defer independent inquiry or investigation, it should complete any inquiry and decide whether an investigation is warranted within 90 days. It should similarly complete any investigation and reach a disposition within 180 days. If completion of an inquiry or investigation is delayed, but the grantee wishes NSF deferral to continue, NSF may require submission of periodic status reports.
- d. Grantees should maintain and effectively communicate to their staffs appropriate policies and procedures relating to misconduct, which should indicate when NSF must or should be notified.
- e. Online research ethics training is available through the Department of Health and Human Services, Office of Research Integrity at [http://ori.hhs.gov/education/products/rcr\\_misconduct.shtml](http://ori.hhs.gov/education/products/rcr_misconduct.shtml).

### **3. Reporting Possible Misconduct**

Possible misconduct in activities funded by NSF should be reported to the Office of Inspector General, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230, (703) 292-7100 or (800) 428-2189 or via e-mail at [oig@nsf.gov](mailto:oig@nsf.gov).

# SUBJECT INDEX

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Suzanne H. Plimpton  
Reports Clearance Officer  
Division of Administrative Services  
National Science Foundation  
Arlington, VA 22230