



Responsible Conduct of Research (RCR) Frequently Asked Questions

Updated March 3, 2010

Are there types of proposals/awards that are exempt from the RCR requirement?

The RCR training requirement applies to all proposals submitted, or due, on or after January 4, 2010, to conduct research, which excludes, for example, conference, symposium, workshop, or travel proposals.

Who must receive the RCR training?

NSF expects institutions to be able to verify that those students (undergraduates and graduates) and postdoctoral researchers who receive NSF funds (support from salary and/or stipends to conduct research on NSF grants) will obtain RCR training. However, NSF anticipates that institutions will develop their RCR training programs in a manner that helps prepare the next generation of researchers, including the consideration of risks or other factors associated with student and postdoctoral researcher participation in research.

Must RCR training be provided on an annual basis? Is there a minimum content requirement?

Each institution is responsible for the content requirements of its RCR training program, and the frequency with which such training determining must occur.

NSF understands that some institutions would like NSF guidance about content for training in responsible conduct of research. However, NSF believes that the research community, encompassing both individual researchers and institutions, is best placed to determine the content of RCR training without a need for NSF-specified standards. Furthermore, NSF recognizes that specific training needs may vary depending on specific circumstances of research or the specific needs of students intending to pursue careers in basic or applied science after completing their education. Therefore, it is the responsibility of each institution to determine both the content and the delivery method for the training that will meet the institution's specific needs for RCR training in all areas at that institution for which NSF provides support. Furthermore, each institution must decide if development of content

or pedagogical method is required, or if appropriate content and training can be provided from some existing sources or capabilities, and take appropriate action to implement their decisions.

Are there resources for institutions to identify effective materials and practices for RCR training?

A wide array of information exists to help inform RCR training. For example, many professional societies as well as governmental licensing authorities for professional scientists and engineers have adopted policies or best practices that might be usefully considered. In addition, research is illuminating existing practices surrounding ethical issues, and providing an evaluation of pedagogical innovations in ethics education. A recent NSF-funded workshop entitled “Ethics Education: What’s Been Learned? What Should be Done?” was held by the National Academies of Science & Engineering (NAE). Information about the workshop, as well as additional resources, are available at: <http://www.nae.edu/nae/enethicscen.nsf/weblinks/NKAL-7LHM86?OpenDocument>. The workshop report is available at the NAE’s Center for Engineering, Ethics and Society website: <http://www.nae.edu/?ID=14646>. NSF is committed to continue its funding of research in this important area through programs such as Ethics Education in Science and Engineering:

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13338&org=SES&from=home) and to promote the development and implementation of effective practices through its education and training programs. NSF will also continue to promote the development and implementation of effective practices through its education and training programs such as the Integrative Graduate Research and Education Traineeship Program. In addition, NSF has also funded two beta sites (NSF Award 0936857, <http://www.umass.edu/sts/digitallibrary/>, and NSF Award 0936865,

<http://www.onlineethics.org/CMS/about/UserGuide/18848.aspx>) to begin to provide an interactive community online resource on ethics education in science and engineering. These beta sites will provide a foundation for an ongoing on-line RCR resource in ethics education in science and engineering that NSF plans to award through open competition. NSF will also continue to explore other potential methods to support the academic community’s efforts in providing RCR training.

Does the RCR requirement flow down to any subawardee identified on the project?

Yes. At the time of proposal submission, the Authorized Organizational Representative of the proposing institution is responsible for certifying that its institution has a plan 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. The RCR training requirement does flow down to all

subawardees, at any tier. The proposing institution must therefore ensure that these RCR requirements are appropriately addressed in the subaward instrument. NSF does not anticipate, however, that such subawards will be negotiated at the time of proposal submission.

Does the RCR training plan have to be in place before any award is made, or at the time of proposal submission?

The RCR training plan must be in place at the time of proposal submission.

Do undergraduates, graduate students and postdoctoral researchers have to receive RCR training before being identified on a proposal to NSF?

No. It is not required that the training be completed at that time. The institution plan for training should include when individuals are to receive the training.

What does the term “oversight” mean as specified in the certification language?

“Oversight” as specified in the certification language refers to tracking and verification that the requirement has been met. Institutions are responsible for verifying that undergraduates, graduates, and postdoctoral researchers who receive salary or stipend support on the NSF award to conduct research, receive the requisite RCR training.

Does a subaward to an international organization have to include the RCR requirement?

The RCR requirement flows down to all subawardees, including international organizations. If there are undergraduates, graduates, and postdoctoral researchers supported on the award to conduct research, they must be trained in the responsible conduct of research.

Does NSF require that individuals who receive NSF scholarships or stipends through, for example, the NSF S-STEM or Noyce programs receive RCR training?

No, students who receive only scholarship or stipend support to enroll in an academic program through such NSF programs as S-STEM and Noyce are not required to receive RCR training. However, students must take RCR training if they receive NSF scholarship or stipend support to engage in research, or if conducting research is included in their academic program.

Who is responsible for assuring the students who receive NSF Graduate Research Fellowships receive RCR training?

Institutions that host graduate fellows to conduct research will be required to ensure that the fellows have received RCR training.

Can training activities (or salaries for the time period spent taking the training) undertaken by undergraduate students, graduate students or postdoctoral researchers who are working on an NSF award be charged as a direct cost to an NSF award?

The question of whether training activities (or salaries for the time period spent taking the training) undertaken by undergraduate students, graduate students or postdoctoral researchers who are working on an NSF award can be charged as direct cost to an NSF award is dependent on the allocability to the sponsored research activity as follows:

If the training is specific to the NSF sponsored research activity, such as learning how to use a particular research instrument or a specific laboratory technique used in the sponsored research activity, or the presentation and reporting on data sets generated by the sponsored research to meet Research Standards, such training may be appropriate to direct charge to an NSF award.

If the training is more general in nature such as plagiarism, research misconduct, ethical standards, human research, vertebrate animals, etc., then it may be more appropriate to treat such costs as indirect and/or apportion them among the major functions of the awardee institution.

Consideration must be given to Cost Accounting Standard 502, *Consistency in the Treatment of Costs*, and the awardee's accounting practices as outlined in the institution's Disclosure Statement. Therefore, if the institution treats these costs as indirect costs under other major functions, or to other sponsors, it may be more consistent to treat these as indirect costs. For example, it generally would not be appropriate to identify such costs as direct costs on an NSF award and indirect costs on an Office of Naval Research award.

We were told at a seminar in Washington DC that NSF would publish a final rule on RCR in the Federal Register. Did this happen? If so, can you please provide a citation?

NSF posted its final implementation plan for Section 7009 of the America COMPETES Act (42 U.S.C. 1860o-1) in the Federal Register on August 20, 2009. (See: <<http://edocket.access.gpo.gov/2009/E9-19930.htm>> for the full text of the Foundation's implementation plan.) A revised version of the Proposal & Award Policies & Procedures Guide (NSF 10-1) was issued on October 1, 2009 and formally implements the Foundation's

RCR requirements. The RCR requirement applies to proposals submitted or due on or after January 4, 2010.

Do PIs have to report in annual or final reports on the RCR training?

PIs are not required to report on RCR training in annual and final reports.

Is this certification also required for NIH, DOD and other sponsors? Or, is just for proposals submitted to NSF?

Section 7009 of the America COMPETES Act was directed solely at the National Science Foundation, and, the Foundation's implementation therefore applies ONLY to proposals submitted or due to NSF on or after January 4, 2010. NSF is aware, however, that other agencies may have RCR training requirements.

What are the responsibilities of the PI on the award supporting the students or postdocs in providing RCR training?

The institution is responsible for certification that the RCR training plan is in place and verification that the students and postdocs have completed the RCR training. The role of a PI in meeting these institution responsibilities is determined by the institution.