



Directorate for Social, Behavioral, and Economic Sciences (SBE)



The goals of the Directorate for Social, Behavioral, and Economic Sciences (SBE) are (1) to support the development of basic scientific knowledge of human behavior, social interaction, and decision-making and about social and economic systems, organizations, and institutions; (2) to collect, analyze, and publish data on the status of the Nation's science and engineering, human, institutional, and financial resources; and (3) to advance the U.S. science and engineering enterprise by promoting international partnerships and by enhancing the work of U.S. researchers through cooperative activities with foreign scientists and engineers and their facilities and institutions.

The Directorate for Social, Behavioral, and Economic Sciences supports programs and activities through the following:

- Crosscutting Programs and Activities
- Division of Behavioral and Cognitive Sciences (BCS)
- Division of Social and Economic Sciences (SES)
- Division of Science Resources Statistics (SRS)
- Office of International Science and Engineering (INT)



Visit the SBE Directorate home page, http://www.nsf.gov/sbe.

The National Science Foundation 4201 Wilson Boulevard, Arlington, Virginia 22230, USA Tel: 703-292-5111, FIRS: 800-877-8339 | TDD: 703-292-5090





Crosscutting Programs and Activities

In addition to supporting the programs and activities within the Directorate for Social, Behavioral, and Economic Sciences (SBE), SBE also takes an active role in the following crosscutting programs and activities:

Priority Areas

- Biocomplexity in the Environment
- Nanoscale Science and Engineering
- Mathematical Sciences
- Human and Social Dynamics

National Science and Technology Council Crosscuts

- Networking and Information Technology Research and Development (NITRD)
- U.S. Global Change Research
- Climate Change Research Initiative



Visit the NSF Crosscutting Programs home page, http://www.nsf.gov/home/crssprgm/.





Division of Behavioral and Cognitive Sciences

Research support is available in the Division of Behavioral and Cognitive Sciences (BCS) through the following clusters of programs:

- Anthropological and Geographic Sciences Cluster
- Cognitive, Psychological, and Language Sciences Cluster

Submission of Proposals to the BCS Division

All programs in the BCS Division consider proposals for research projects, conferences, and workshops. Some programs also consider proposals for doctoral dissertation improvement, the acquisition of specialized research and computing equipment, and large-scale data collection.

BCS conducts special initiatives and competitions on a number of topics, such as cognitive neuroscience, children's research, human origins, and environmental, social, and behavioral sciences. In addition, BCS participates in a number of Foundation-wide crosscutting activities, such as Integrative Graduate Education and Research Traineeship (IGERT) and Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers (ADVANCE).

For More Information

Write to the responsible program director, Division of Behavioral and Cognitive Sciences, National Science Foundation, 4201 Wilson Boulevard, Room 995, Arlington, VA 22230; or contact by telephone, 703-292-8740; or visit the BCS home page, http://www.nsf.gov/sbe/bcs/start.htm.

Anthropological And Geographic Sciences Cluster

This cluster of programs is within the Division of Behavioral and Cognitive Sciences (BCS) and is composed of the following:

- 1. Archaeology and Archaeometry
- 2. Cultural Anthropology
- 3. Geography and Regional Science
- 4. Physical Anthropology



For More Information

Visit the BCS Division home page, http://www.nsf.gov/sbe/bcs/start.htm.

1. Archaeology and Archaeometry

Supports archaeological research that contributes to an anthropological understanding of the past. Both fieldwork and non-fieldwork are eligible for support. Through a special archaeometry competition, the program offers support for laboratories that provide data of anthropological significance and also for the development of new techniques.

2. Cultural Anthropology

Supports basic research on the causes and consequences of crosscultural and intracultural variation as such research broadens or refines anthropological theory. In an effort to enhance the quality of students' field research in graduate programs, the program offers various awards for the support of field training and collaborative research of students and faculty, Scholars' Awards in Methodological Training for Cultural Anthropologists are offered for senior researchers who wish to upgrade their research skills by learning a particular analytical technique.

3. Geography and Regional Science

Supports basic research on the causes and consequences of geographical differences in economic, social, cultural, and physical phenomena, including interactions among places and regions and interrelations between human activities and the natural environment. Projects on a variety of domestic and overseas topics that will enhance geographical theory, geographical methods, and their applications qualify for support.

4. Physical Anthropology

Supports basic research in areas that relate to human evolution and contemporary human variation. Research areas supported by the program include human genetic variation, human adaptation, human osteology, human origins, human paleontology, primate functional anatomy, and primate behavior.

Cognitive, Psychological, and Language Sciences Cluster

This cluster of programs is within the Division of Behavioral and Cognitive Sciences (BCS) and is composed of the following:

- 1. <u>Developmental and Learning Sciences</u>
- 2. Perception, Action, and Cognition
- 3. Linguistics
- 4. Social Psychology
- 5. Cognitive Neuroscience



Visit the BCS Division home page, http://www.nsf.gov/sbe/bcs/start.htm.

1. Developmental and Learning Sciences

Supports research on cognitive, social, and biological processes related to child and adolescent learning in formal and informal settings. Priorities are to support research on learning and development that incorporates multidisciplinary, multimethod, microgenetic, and longitudinal approaches; develops new methods and theories; examines transfer of knowledge from one domain to another; assesses peer relations, family interactions, social identities, and motivation; examines the impact of family, school, and community resources; assesses adolescents' preparation for entry into the workforce; and investigates the role of culture in children's learning and development.

2. Perception, Action, and Cognition

Supports research on cognition, perception, and action, including the development of these capacities. Emphasis is on research strongly grounded in theory. Research topics include vision, audition, haptics, attention, memory, reasoning, written and spoken discourse, motor control, and developmental issues in all topic areas. The program encompasses a wide range of theoretical perspectives, such as symbolic computation, connectionism, ecological, nonlinear dynamics, and complex systems, and a variety of methodologies including both experimental studies and modeling. Research involving acquired or developmental deficits is appropriate if the results speak to basic issues of cognition, perception, or action.

3. Linguistics

Supports theoretically informed research on human language. The program encompasses a wide range of theoretical perspectives and a variety of methods, including experimental studies and computational modeling. Research topics include the properties of individual languages and of language in general; language acquisition; the cognitive processes involved in the use of language; social and cultural factors in language use; language variation and change; acoustic, articulatory, and perceptual study of speech; and the neurological bases of language. Program awards have also supported the development of lexicons, corpora, databases, and other

resources for the language sciences. In addition to regular research proposals, the program accepts proposals for doctoral dissertation research; conferences, workshops, and symposia; group travel to international conferences; and Small Grants for Exploratory Research.

4. Social Psychology

Supports research on human social behavior, including cultural influences and lifespan social development. Research topics include aggression; altruism; attitude formation and change; attitudes and behavior; attributional processes; emotion; environmental psychology; group decision-making, performance, and process; intergroup relations; interpersonal attraction and relations; nonverbal communication; person perception; personality processes; prejudice; the self; social comparison; social cognition; social influence; and stereotyping.

5. Cognitive Neuroscience

Supports neuroscientific research on cognitive, perceptual, linguistic, developmental, affective, and social processes, including developmental and computational modeling approaches. Priorities of the program are to support collaborative research and to enhance training at all levels of professional development.





Division of Social and Economic Sciences

Research support is available in the Division of Social and Economic Sciences (SES) through the following clusters of programs:

- Economic, Decision, and Management Sciences Cluster
- Methods, Cross-Directorate, and Science and Society Cluster
- Social and Political Sciences Cluster

Submission of Proposals to the SES Division

All programs in the SES Division consider proposals for research projects, conferences, and workshops. Some programs also consider proposals for doctoral dissertation improvement, the acquisition of specialized research and computing equipment, and large-scale data collection. Some programs participate in jointly sponsored competitions with programs in other directorates.



Write to the responsible program director, Division of Social and Economic Sciences, National Science Foundation, 4201 Wilson Boulevard, Room 995, Arlington, VA 22230; or contact by telephone, 703-292-8760; or visit the SES home page, http://www.nsf.gov/sbe/ses/start.htm.

• Economic, Decision, and Management Sciences Cluster

This cluster of programs is within the Division of Social and Economic Sciences (SES) and consists of the following:

- 1. Decision, Risk, and Management Science
- 2. Economics
- 3. Innovation and Organizational Change (IOC)



Visit the SES Division home page, http://www.nsf.gov/sbe/ses/start.htm.

1. Decision, Risk, and Management Science

Supports scientific research directed at increasing the understanding and effectiveness of decision-making by individuals, groups, organizations, and society. Disciplinary and interdisciplinary research, doctoral dissertation research, and workshops are funded in the areas of judgment and decision-making; decision analysis and decision aids; risk analysis, perception, and communication; societal and public policy decision-making; and management science and organizational design. The program also supports small grants for exploratory research that are time-critical, such as decision-making in response to extreme events. Funded research must have implications in an operational or applied context, be grounded in theory, be based on empirical observation or subject to empirical validation, and be generalizable.

2. Economics

Supports basic scientific research designed to improve understanding of the processes and institutions of the U.S. economy and of the world system of which it is a part. The program supports empirical and theoretical research as well as conferences in almost every subfield of economics, including econometrics, mathematical economics, labor economics, industrial organization, international economics, public finance, and economic history. The program also supports interdisciplinary research and conferences that strengthen the connection

between economics and other disciplines, including the other social sciences, statistics, mathematics, the behavioral sciences, and engineering.

3. Innovation and Organizational Change (IOC)

Seeks to create and apply fundamental new knowledge with the aim of improving the effectiveness of the design, administration, and management of organizations, including industrial, educational, service, government, and nonprofit organizations. The IOC Program places a priority on investigator-initiated research that develops and tests theories and methodologies related to organizational learning and redesign, quality and process improvement, the management of innovation, and the organizational development and integration of new technologies. Projects that develop or build upon cross-disciplinary research perspectives are another priority. Perspective IOC research draws on but is not limited to, organizational behavior and theory, industrial engineering, organizational sociology, public administration, and management science.

IOC is jointly sponsored by the Directorates for Engineering, Social, Behavioral, and Economic Sciences, and Education and Human Resources.

Methods, Cross-Directorate, And Science And Society Cluster

This cluster of programs is within the Division of Social and Economic Sciences (SES) and is composed of the following:

- 1. Cross-Directorate Activities
- 2. Methodology, Measurement, and Statistics
- 3. Science and Technology Studies
- Societal Dimensions of Engineering, Science, and Technology (SDEST): Ethics and Values Studies, Research on Science and Technology



Visit the SES Division home page, http://www.nsf.gov/sbe/ses/start.htm.

1. Cross-Directorate Activities

Administers and provides information about various cross-directorate programs in which the Social, Behavioral, and Economic Sciences Directorate participates. The program administers the Research Experiences for Undergraduates (REU) Sites, Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers (ADVANCE) Fellows, and Minority Postdoctoral Research Fellowships for the social and behavioral sciences. In addition, the program coordinates the Faculty Early Career Development (CAREER), Presidential Early Career Awards for Scientists and Engineers (PECASE), Research in Undergraduate Institutions (RUI), Integrative Graduate Education and Research Traineeships (IGERT), and GK-12 NSF Graduate Teaching Fellows in K-12 Education Programs for the social and behavioral sciences. The program also supports special studies, analyses, and workshops on issues affecting social and behavioral science disciplines—including issues that span organizational boundaries and division priorities—and activities that address needs in education and human resources, as well as the creation of a diverse social and behavioral science personnel pool. In addition, for the social and behavioral sciences, the program officers for Cross-Directorate Activities can provide information about special opportunities NSF offers for educational initiatives.



For a complete description of these programs, see Chapter 1, Crosscutting Investment Strategies, in this Guide; or see the NSF Crosscutting Programs home page, http://www.nsf.gov/home/crssprgm/start.htm; or the SES Division home page, http://www.nsf.gov/sbe/ses/cda.

2. Methodology, Measurement, and Statistics

Supports fundamental research on the development, application, and extension of formal models and methodologies for social and behavioral research, including methods for improving measurement, and research on

statistical methodology or statistical modeling that has direct implications for one or more of the social and behavioral sciences. Also supported are research on methodological aspects of new or existing procedures for data collection; research to evaluate or compare existing databases and data collection procedures; the collection of unique databases with cross-disciplinary implications, especially when paired with developments in measurement or methodology; and the methodological infrastructure of social and behavioral research.

3. Science and Technology Studies

Supports historical, philosophical, cognitive, and social research regarding the character and development of science and technology; the nature of theory and evidence in different fields; and the social and intellectual construction of science and technology. Support is also given to research that examines the relationship among science, government, and other social institutions and groups, and processes of scientific innovation and change.

4. Societal Dimensions of Engineering, Science, and Technology (SDEST): Ethics and Values Studies, Research on Science and Technology

Includes the components Ethics and Values Studies (EVS) and Research on Science and Technology (RST). SDEST considers proposals that examine questions that arise in the interactions of engineering, science, technology, and society. The EVS component supports examinations of the ethical and value dimensions in those interactions. The RST component supports research on social and strategic choices that influence knowledge production and innovation and their effects.

Social And Political Sciences Cluster

This cluster of programs is within the Division of Social and Economic Sciences (SES) and consists of the following:

- 1. Law and Social Science
- 2. Political Science
- 3. Sociology



Visit the SES Division home page, http://www.nsf.gov/sbe/ses/start.htm.

1. Law and Social Science

Supports social science studies of law and lawlike systems of rule, institutions, processes, and behavior. These studies may include research designed to enhance the scientific understanding of the impact of law; human behavior and interaction as they relate to law; the dynamics of legal decision-making; and the nature, source, and consequence of variation and change in legal institutions. The primary consideration is that the research show promise of advancing the scientific understanding of law and legal process. Within this framework, the program has an "open window" for diverse theoretical perspectives, methods, and contexts for study.

2. Political Science

Supports scientific research that advances knowledge and understanding of citizenship, government, and politics. Research proposals are expected to be theoretically motivated, conceptually clear, methodologically rigorous, and empirically oriented. Substantive areas for research proposals include American government and politics, comparative government and politics, international relations, political behavior, political economy, and political institutions. In recent years, program awards have supported research projects on bargaining processes; campaigns and elections, electoral choice, and electoral systems; citizen support in emerging and established democracies; democratization, political change, and regime transitions; domestic and international conflict; international political economy; party activism; political psychology and political tolerance. On occasion, program awards also have supported research experiences for undergraduate students, methodological advances in political science, and infrastructural improvements through conference activities.

3. Sociology

Supports scientific research on all forms of human social organization—societies, institutions, groups, and demography. The program encourages theoretically focused empirical investigations of social processes and social structures. It welcomes research that will build connections with other disciplines. Recent awards supported by the program include research on assimilation, crime and delinquency, democratization, education, family, gender, group processes, migration and immigration, organizations and organizational behavior, race and ethnic relations, religion, science and technology, social networks, social movements, stratification and mobility, voluntary organizations, and work and labor markets. The program also promotes doctoral research through dissertation improvement.





Division of Science Resources Statistics

The Division of Science Resources Statistics (SRS) provides statistical data, quantitative analysis, and indicators on the science and engineering enterprise: education, workforce, research and development funding, and research facilities. This information enables policymakers, researchers, and the public to better understand our Nation's science, engineering, and technology enterprise. SRS contracts for most of the data collection activities and some of the analyses it supports. It also purchases or obtains data from other government agencies and private sources.

The SRS Division encourages proposals for research, workshops, and methodological studies that will lead to the development of new or improved science and technology (S&T) indicators; to strengthening methodologies to improve surveys of S&T data; and to an improved understanding of the S&T enterprise in the United States and globally. SRS also invites new approaches to the presentation of indicators that will increase the understanding of S&T issues and permit more sophisticated techniques of statistical analysis and electronic display. SRS encourages proposals that will analyze SRS data separately or in conjunction with those from other sources, but does not limit the work to only analysis of the data it collects. A new area of interest is the improvement of methodologies used in collecting, analyzing, and disseminating statistical data through surveys, censuses, and administrative records.

Proposal Submission

The SRS Division welcomes the submission of proposals to its programs in the topic areas mentioned in this Guide. For specific information and instructions on proposal submission, see the program announcement *Grants for the* Analysis of Science and Technology Resources (NSF 02-165). Proposals are due in mid-September. Awards are made in March of the following year.

SRS Documents

Using data from its surveys, the SRS Division produces numerous reports on important topics in science, engineering, and technology. The following are examples of widely referenced SRS publication series:

- Science and Engineering Indicators
- Women, Minorities, and Persons with Disabilities in Science and Engineering
- National Patterns of R&D Resources
- Science and Engineering Research Facilities
- Science and Engineering Doctorate Awards

Also available are Special Reports, InfoBriefs, and Working Papers on topics related to the science, engineering, and technology enterprise. Data products such as microdata files may be made available to the research community under license. To help acquaint customers with SRS products and databases, the division has an extensive Web site presenting its full collection of reports, public-use microfiles, and online data systems.



For More Information

Visit the SRS home page, http://www.nsf.gov/sbe/srs; or contact the division by telephone, 703-292-8774.





Office of International Science and Engineering

Science and engineering are, and always will be, international enterprises critical to U.S. competitiveness and security. The National Science Foundation (NSF) plays a unique role in leading the worldwide efforts of the American science, engineering, and education communities. The Office of International Science and Engineering (INT) serves as the focal point for the agency's international science and engineering activities. The office works in close partnership with NSF Directorates on international research collaborations and training opportunities. It also manages its own programs that include support for U.S. scientists, engineers, and students (undergraduates, graduate students, and postdoctoral researchers) involved in international projects.

Submission of Proposals to the Office of International Science and Engineering (INT)

Depending on the nature of a proposed project, a grant proposal may be submitted to INT directly or to the appropriate disciplinary division. International supplements to existing grants from the Foundation's research and education directorates also may be requested. Principal investigators who are considering applying for an INT supplement should discuss the scope and timeframe of their proposed activity with both the cognizant program manager in the disciplinary research division and the appropriate (normally, geographically based) program manager in INT.

INT typically supports the international costs of the U.S. participants in an activity. Further detailed information such as special considerations and funding provisions for certain geographical regions or countries can be found on the INT home page, http://www.nsf.gov/sbe/int/start.htm, where instructions and guidelines for each program initiative are provided.

Information is also available in the following program announcements: *International Opportunities for Scientists and Engineers* (NSF 03-559), *International Research Fellowship Program* (NSF 02-149), *East Asia Summer Institutes for U.S. Graduate Students* (NSF 02-174), *and Pan-American Advanced Studies Institutes Program* (NSF 03-506).

INT participates in a number of NSF crosscutting programs, encouraging international cooperative activities, especially in the Program for Integrative Graduate Education and Research Traineeship (IGERT) and the Program for Research Experiences for Undergraduates (REU). Further information about these programs can be found on the NSF Crosscutting Programs Web site, http://www.nsf.gov/home/crssprgm/.

Eligibility Requirements for the Office of International Science and Engineering

Eligible for consideration are proposals submitted by U.S. scientists and engineers for international activities in all fields of science and engineering normally supported by NSF. A U.S. institution should submit the proposal. Two exceptions to this procedure are the International Research Fellow Awards and the East Asia Summer Institutes for U.S. Graduate Students Program, which accept applications directly from individuals who are U.S. citizens or permanent residents. Proposals submitted to INT normally compete in one of five regional groupings. Proposals for International Research Fellow Awards are in a separate competition.

For More Information

For information about the agency's international programs, write to the Office of International Science and Engineering, National Science Foundation, 4201 Wilson Boulevard, Suite 935, Arlington, VA 22230; or contact the INT office by telephone, 703-292-8710; or e-mail, intpubs@nsf.gov. Information, including a current staff directory, is also available on the INT home page, http://www.nsf.gov/sbe/int/start.htm.

Specific geographic or transregional affairs phone and e-mail contacts are:

Africa, Near East, and South Asia (ANESA)

703-292-8707; anesainfo@nsf.gov

Americas

703-292-8706; amerinfo@nsf.gov

Central and Eastern Europe (CEE)

703-292-8703; ceeinfo@nsf.gov

East Asia and Pacific Region (EAP)

703-292-8704; eapinfo@nsf.gov

Western Europe (WE)

703-292-8702; weinfo@nsf.gov

Trans-regional Affairs

703-292-8711

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