Division of Human Resource Development

Summary of Programs



National Science Foundation



The Division of Human Resource Development (HRD), within the Directorate for Education and Human Resources, serves as a focal point for NSF's agency-wide commitment to enhancing the quality and excellence of science, technology, engineering, and mathematics (STEM) education and research through broadening participation by underrepresented groups and institutions.

HRD's programs have a strong focus on partnerships and collaborations in order to maximize the preparation of a well-trained scientific and instructional workforce. The programs are aligned with their respective target populations:

- Minorities and Minority-Serving Institutions
- Women and Girls
- Persons with Disabilities

All HRD programming seeks to encourage access to and equity within STEM education. Thematically, these goals are realized via:

- Education Research and Demonstration;
- Enhancement of Institutional Education Capacity;
- Enhancement of Institutional Research Capacity;
- Large-scale Implementation; and
- Recognition and Dissemination.

	Minorities and Minority-Serving Institutions	Women and Girls	Persons with Disabilities
Education Research and Demonstration	LSAMP	PGE	PPD
Enhancement of Institutional Education Capacity	HBCU-UP, TCUP	PGE	PPD
Enhancement of Institutional Research Capacity	CREST		
Large-scale Implementation	LSAMP, AGEP		
Recognition and Dissemination	PAESMEM	PAESMEM, PGE	PAESMEM, PPD

HRD Programs According to Theme and Population

Minorities and Minority-Serving Institutions

The Louis Stokes Alliances for Minority Participation (LSAMP) Program http://www.ehr.nsf.gov/ehr/hrd/amp.asp YEAR BEGUN: FY 1991 NUMBER OF AWARDS: 32 TARGET AUDIENCE: undergraduates, faculty, research and industry

LSAMP develops comprehensive strategies to strengthen the preparation and production of underrepresented minority students completing baccalaureate degrees in STEM. The long-term goal is to increase the production of minority Ph.D.s with an emphasis on the professoriate. LSAMP awardees demonstrate strong partnerships among academic institutions, government agencies and laboratories, industry, and professional organizations.

Centers of Research Excellence in Science and Technology (CREST) http://www.ehr.nsf.gov/ehr/hrd/Crest.asp YEAR BEGUN: FY 1987 NUMBER OF AWARDS: 16

TARGET AUDIENCE: undergraduates, faculty, researchers

CREST makes resources available to upgrade the research capabilities of minorityserving institutions. The Centers promote the production of new knowledge, increase the research productivity of individual faculty, and expand a diverse student presence in all STEM disciplines.

Alliances for Graduate Education and the Professoriate (AGEP) http://www.ehr.nsf.gov/ehr/hrd/agep.asp YEAR BEGUN: FY 1998 NUMBER OF AWARDS: 20 TARGET AUDIENCE: graduate students, faculty

AGEP seeks to increase significantly the number of Black, Hispanic, and American Indian/Alaskan Native students pursuing advanced study, receiving doctoral degrees in science, mathematics, and engineering, and the number of minorities who will enter the professoriate as role models and mentors.

Historically Black Colleges and Universities Undergraduate Program (HBCU-UP) http://www.ehr.nsf.gov/ehr/hrd/hbcu.asp

YEAR BEGUN: FY 1998 NUMBER OF AWARDS: 30

TARGET AUDIENCE: undergraduates, educators, researchers

HBCU-UP seeks to enhance the quality of undergraduate education at HBCUs as a means to broaden participation of underrepresented minorities in the Nation's STEM workforce. Typical mechanisms include course and curriculum reform, faculty development, supervised research, and other active-learning experiences for STEM undergraduates.

Tribal Colleges and Universities Program (TCUP)

http://www.ehr.nsf.gov/ehr/hrd/tcup.asp

YEAR BEGUN: FY 2000 NUMBER OF AWARDS: 17

TARGET AUDIENCE: Tribal Colleges and Universities, Alaskan Native-serving institutions and Native Hawaiian-serving institutions

TCUP awards support comprehensive institutional approaches to strengthen teaching, learning, and community outreach in ways that improve access to, retention within, and graduation from STEM programs. Particular emphasis is placed on the leveraged use of information technologies.

Women and Girls

Program for Gender Equity in Science, Mathematics, Engineering, and Technology (PGE) http://www.ehr.nsf.gov/ehr/hrd/pge.asp YEAR BEGUN: FY 1992 NUMBER OF AWARDS: 250 TARGET AUDIENCE: K-12, college and university students, educators, counselors, families, support groups, informal science audiences.

PGE seeks to broaden the participation of girls and young women in STEM through research and innovation in education. Project outcomes offer proven solutions for increasing the interest, retention, and achievement of girls and women and for implementing strategic student-enrichment resources including mentoring.

Persons with Disabilities

Program for Persons with Disabilities (PPD) http://www.ehr.nsf.gov/ehr/hrd/ppd.asp YEAR BEGUN: FY 1992 NUMBER OF AWARDS: 91 TARGET AUDIENCE: K-12, college and university students, educators, counselors, families, support groups, informal science audiences.

PPD promotes the participation of students with disabilities in STEM education leading to their increased representation within the Nation's work force. PPD supports projects that develop techniques for teaching science and mathematics to students of all abilities, increase awareness of the needs and capabilities of students with disabilities, promote the accessibility of instructional materials and learning technologies, and increase the availability of mentoring resources.

Crosscutting Activities

Presidential Awards for Excellence in Science, Mathematics, and Engineering Mentoring (PAESMEM) http://www.ehr.nsf.gov/ehr/hrd/paesmem.asp

YEAR BEGUN: FY 1996 NUMBER OF AWARDS: 100 TARGET AUDIENCE: educators, STEM professionals, institutions

The Executive Office of the President of the United States has established PAESMEM to identify and disseminate model practices of outstanding mentoring efforts and programs designed to enhance the participation of groups underrepresented in STEM. The awardees serve as exemplars to their colleagues and are leaders in the national effort to more fully develop the Nation's human resources in science, mathematics, and engineering.

"A diverse, internationally competitive and globally engaged workforce of scientists, engineers, and well-prepared citizens."

> PEOPLE Goal NSF Strategic Plan FY 2000-2005

HRD Projects

Information about past and ongoing projects supported by HRD programs can be browsed at the following URLs:

AGEP Project Directors	http://www.ehr.nsf.gov/ehr/hrd/hrddirlist.asp#AGEP
CREST Project Directors	http://www.ehr.nsf.gov/ehr/hrd/hrddirlist.asp#CREST
HBCU-UP Project Directors	http://www.ehr.nsf.gov/ehr/hrd/hrddirlist.asp#HBCUUP
LSAMP Project Directors	http://www.ehr.nsf.gov/ehr/hrd/hrddirlist.asp#LSAMP
PAESMEM Awardees	http://www.ehr.nsf.gov/ehr/hrd/paesmem2000.asp
PGE Project Directors	http://www.ehr.nsf.gov/ehr/hrd/pgepilist.asp
PPD Principal Investigators	http://www.ehr.nsf.gov/ehr/hrd/ppdpilist.asp
TCUP Project Directors	http://www.ehr.nsf.gov/ehr/hrd/tcuppilist.asp
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Other Programs of Interest

In addition to the following web sites, information about all NSF programs is compiled annually into the *Guide to Programs* (http://www.nsf.gov/cgi-bin/getpub?gp). Updates and supplements by program announcements and solicitations may also be found at: http://www.nsf.gov

 Other NSF Programs Supporting Diversity in Education & Research

 http://www.ehr.nsf.gov/ehr/hrd/ofund.asp

 Crosscutting or Interdisciplinary NSF Programs and Activities

 http://www.nsf.gov/home/crssprgm/

 Other NSF Funding Opportunities for STEM Education

 Elementary, Secondary and Informal Education

 http://www.ehr.nsf.gov/esie/resources/EdCommLinks.asp

 Undergraduate Education

 http://www.ehr.nsf.gov/ehr/DUE/links/other_programs.asp

 Graduate Education

 http://www.ehr.nsf.gov/ehr/DUE/links/other_programs.asp

 Graduate Education

 http://www.ehr.nsf.gov/ehr/dge/



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