

(4) to develop mentorship programs for students with partner organizations; and

(5) to conduct activities to support awareness of career opportunities and skill requirements.

(d)² Priority

In awarding grants under this section, the Director shall give priority to institutions of higher education or consortia thereof that demonstrate significant outreach to and coordination with local or regional private sector entities and Regional Centers for the Transfer of Manufacturing Technology established by section 278k(a) of title 15 in developing academic courses designed to provide students with the skills or certifications necessary for employment in local or regional companies.

(c)¹ Outreach to rural communities

The Foundation shall conduct outreach to institutions of higher education and private sector entities in rural areas to encourage those entities to participate in partnerships under this section.

(d)² Cost-share

The Director shall require a 50 percent non-Federal cost-share from partnerships established or expanded under this section.

(e) Restriction

No Federal funds provided under this section may be used—

(1) for the purpose of providing stipends or compensation to students for private sector internships unless private sector entities match 75 percent of such funding; or

(2) as payment or reimbursement to private sector entities, except for institutions of higher education.

(f) Report

Not less than 3 years after January 4, 2011, the Director shall submit a report to Congress on the number and total value of awards made under this section, the number of students affected by those awards, any evidence of the effect of those awards on workforce preparation and jobs placement for participating students, and an economic and ethnic breakdown of the participating students.

(Pub. L. 111-358, title V, §515, Jan. 4, 2011, 124 Stat. 4012.)

CODIFICATION

Section was enacted as part of the America COMPETES Reauthorization Act of 2010, also known as the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010, and also as part of the National Science Foundation Authorization Act of 2010, and not as part of the National Science Foundation Act of 1950 which comprises this chapter.

DEFINITIONS

For definitions of terms used in this section, see section 2 of Pub. L. 111-358, set out as a note under section 6621 of this title, and section 502 of Pub. L. 111-358, set out as a note under section 1862p of this title.

²So in original. Two subsecs. (d) have been enacted.

§ 1862p-8. Cyber-enabled learning for national challenges

The Director shall, in consultation with appropriate Federal agencies, identify ways to use cyber-enabled learning to create an innovative STEM workforce and to help retrain and retain our existing STEM workforce to address national challenges, including national security and competitiveness, and use technology to enhance or supplement laboratory based learning.

(Pub. L. 111-358, title V, §516, Jan. 4, 2011, 124 Stat. 4012.)

CODIFICATION

Section was enacted as part of the America COMPETES Reauthorization Act of 2010, also known as the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010, and also as part of the National Science Foundation Authorization Act of 2010, and not as part of the National Science Foundation Act of 1950 which comprises this chapter.

DEFINITIONS

For definitions of terms used in this section, see section 2 of Pub. L. 111-358, set out as a note under section 6621 of this title, and section 502 of Pub. L. 111-358, set out as a note under section 1862p of this title.

§ 1862p-9. Experimental Program to Stimulate Competitive Research

(a) Findings

The Congress finds that—

(1) The National Science Foundation Act of 1950 [42 U.S.C. 1861 et seq.] stated, “it shall be an objective of the Foundation to strengthen research and education in the sciences and engineering, including independent research by individuals, throughout the United States, and to avoid undue concentration of such research and education.”;

(2) National Science Foundation funding remains highly concentrated, with 27 States and 2 jurisdictions, taken together, receiving only about 10 percent of all NSF research funding; each of these States received only a fraction of one percent of Foundation’s research dollars each year;

(3) the Nation requires the talent, expertise, and research capabilities of all States in order to prepare sufficient numbers of scientists and engineers, remain globally competitive and support economic development.

(b) Continuation of program

The Director shall continue to carry out EPSCoR, with the objective of helping the eligible States to develop the research infrastructure that will make them more competitive for Foundation and other Federal research funding. The program shall continue to increase as the National Science Foundation funding increases.

(c) Congressional reports

The Director shall report to the appropriate committees of Congress on an annual basis, using the most recent available data—

(1) the total amount made available, by State, under EPSCoR;

(2) the amount of co-funding made available to EPSCoR States;

(3) the total amount of National Science Foundation funding made available to all institutions and entities within EPSCoR States; and

(4) efforts and accomplishments to more fully integrate the 29 EPSCoR jurisdictions in major activities and initiatives of the Foundation.

(d) Coordination of EPSCoR and similar Federal programs

(1) Another finding

The Congress finds that a number of Federal agencies have programs, such as Experimental Programs to Stimulate Competitive Research and the National Institutes of Health Institutional Development Award program, designed to increase the capacity for and quality of science and technology research and training at academic institutions in States that historically have received relatively little Federal research and development funding.

(2) Coordination required

The EPSCoR Interagency Coordinating Committee, chaired by the National Science Foundation, shall—

(A) coordinate EPSCoR and Federal EPSCoR-like programs to maximize the impact of Federal support for building competitive research infrastructure, and in order to achieve an integrated Federal effort;

(B) coordinate agency objectives with State and institutional goals, to obtain continued non-Federal support of science and technology research and training;

(C) develop metrics to assess gains in academic research quality and competitiveness, and in science and technology human resource development;

(D) conduct a cross-agency evaluation of EPSCoR and other Federal EPSCoR-like programs and accomplishments, including management, investment, and metric-measuring strategies implemented by the different agencies aimed to increase the number of new investigators receiving peer-reviewed funding, broaden participation, and empower knowledge generation, dissemination, application, and national research and development competitiveness;

(E) coordinate the development and implementation of new, novel workshops, outreach activities, and follow-up mentoring activities among EPSCoR or EPSCoR-like programs for colleges and universities in EPSCoR States and territories in order to increase the number of proposals submitted and successfully funded and to enhance statewide coordination of EPSCoR and Federal EPSCoR-like programs;

(F) coordinate the development of new, innovative solicitations and programs to facilitate collaborations, partnerships, and mentoring activities among faculty at all levels in non-EPSCoR and EPSCoR States and jurisdictions;

(G) conduct an evaluation of the roles, responsibilities and degree of autonomy that program officers or managers (or the equivalent position) have in executing EPSCoR

programs at the different Federal agencies and the impacts these differences have on the number of EPSCoR State and jurisdiction faculty participating in the peer review process and the percentage of successful awards by individual EPSCoR State jurisdiction and individual researcher; and

(H) conduct a survey of colleges and university faculty at all levels regarding their knowledge and understanding of EPSCoR, and their level of interaction with and knowledge about their respective State or Jurisdictional EPSCoR Committee.

(3) Meetings and reports

The Committee shall meet at least twice each fiscal year and shall submit an annual report to the appropriate committees of Congress describing progress made in carrying out paragraph (2).

(e) Federal agency reports

Each Federal agency that administers an EPSCoR or Federal EPSCoR-like program shall submit to the OSTP as part of its Federal budget submission—

(1) a description of the program strategy and objectives;

(2) a description of the awards made in the previous year, including—

(A) the percentage of reviewers and number of new reviewers from EPSCoR States;

(B) the percentage of new investigators from EPSCoR States;

(C) the number of programs or large collaborator awards involving a partnership of organizations and institutions from EPSCoR and non-EPSCoR States; and

(3) an analysis of the gains in academic research quality and competitiveness, and in science and technology human resource development, achieved by the program in the last year.

(f) National Academy of Sciences study

(1) In general

The Director shall contract with the National Academy of Sciences to conduct a study on all Federal agencies that administer an Experimental Program to Stimulate Competitive Research or a program similar to the Experimental Program to Stimulate Competitive Research.

(2) Matters to be addressed

The study conducted under paragraph (1) shall include the following:

(A) A delineation of the policies of each Federal agency with respect to the awarding of grants to EPSCoR States.

(B) The effectiveness of each program.

(C) Recommendations for improvements for each agency to achieve EPSCoR goals.

(D) An assessment of the effectiveness of EPSCoR States in using awards to develop science and engineering research and education, and science and engineering infrastructure within their States.

(E) Such other issues that address the effectiveness of EPSCoR as the National Academy of Sciences considers appropriate.

(Pub. L. 111-358, title V, §517, Jan. 4, 2011, 124 Stat. 4013.)

REFERENCES IN TEXT

The National Science Foundation Act of 1950, referred to in subsec. (a)(1), is act May 10, 1950, ch. 171, 64 Stat. 149, which is classified generally to this chapter. For complete classification of this Act to the Code, see Short Title note set out under section 1861 of this title and Tables.

CODIFICATION

Section was enacted as part of the America COMPETES Reauthorization Act of 2010, also known as the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010, and also as part of the National Science Foundation Authorization Act of 2010, and not as part of the National Science Foundation Act of 1950 which comprises this chapter.

DEFINITIONS

For definitions of terms used in this section, see section 502 of Pub. L. 111–358, set out as a note under section 1862p of this title.

§ 1862p–10. Academic technology transfer and commercialization of university research

(a) In general

Any institution of higher education (as such term is defined in section 1001(a)¹ of title 20) that receives National Science Foundation research support and has received at least \$25,000,000 in total Federal research grants in the most recent fiscal year shall keep, maintain, and report annually to the National Science Foundation the universal record locator for a public website that contains information concerning its general approach to and mechanisms for transfer of technology and the commercialization of research results, including—

- (1) contact information for individuals and university offices responsible for technology transfer and commercialization;
- (2) information for both university researchers and industry on the institution's technology licensing and commercialization strategies;
- (3) success stories, statistics, and examples of how the university supports commercialization of research results;
- (4) technologies available for licensing by the university where appropriate; and
- (5) any other information deemed by the institution to be helpful to companies with the potential to commercialize university inventions.

(b) NSF website

The National Science Foundation shall create and maintain a website accessible to the public that links to each website mentioned under (a).

(c) Trade secret information

Notwithstanding subsection (a), an institution shall not be required to reveal confidential, trade secret, or proprietary information on its website.

(Pub. L. 111–358, title V, §520, Jan. 4, 2011, 124 Stat. 4016.)

REFERENCES IN TEXT

Section 1001(a) of title 20, referred to in subsec. (a), was in the original “section 101(A) of the Higher Edu-

¹ See References in Text note below.

cation Act of 1965 (20 U.S.C. 1001(a))”, and was translated as reading “section 101(a)” of that Act, to reflect the probable intent of Congress.

CODIFICATION

Section was enacted as part of the America COMPETES Reauthorization Act of 2010, also known as the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010, and also as part of the National Science Foundation Authorization Act of 2010, and not as part of the National Science Foundation Act of 1950 which comprises this chapter.

§ 1862p–11. NSF grants in support of sponsored post-doctoral fellowship programs

The Director of the National Science Foundation may utilize funds appropriated to carry out grants to institutions of higher education (as such term is defined in section 1001(a) of title 20) to provide financial support for post-graduate research in fields with potential commercial applications to match, in whole or in part, any private sector grant of financial assistance to any post-doctoral program in such a field of study.

(Pub. L. 111–358, title V, §522, Jan. 4, 2011, 124 Stat. 4017.)

CODIFICATION

Section was enacted as part of the America COMPETES Reauthorization Act of 2010, also known as the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010, and also as part of the National Science Foundation Authorization Act of 2010, and not as part of the National Science Foundation Act of 1950 which comprises this chapter.

§ 1862p–12. Cloud computing research enhancement

(a) Research focus area

The Director may support a national research agenda in key areas affected by the increased use of public and private cloud computing, including—

- (1) new approaches, techniques, technologies, and tools for—
 - (A) optimizing the effectiveness and efficiency of cloud computing environments; and
 - (B) mitigating security, identity, privacy, reliability, and manageability risks in cloud-based environments, including as they differ from traditional data centers;

(2) new algorithms and technologies to define, assess, and establish large-scale, trustworthy, cloud-based infrastructures;

(3) models and advanced technologies to measure, assess, report, and understand the performance, reliability, energy consumption, and other characteristics of complex cloud environments; and

(4) advanced security technologies to protect sensitive or proprietary information in global-scale cloud environments.

(b) Establishment

(1) In general

Not later than 60 days after January 4, 2011, the Director shall initiate a review and assessment of cloud computing research opportuni-