

(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.

**(f) Award structure updates**

In implementing the mandate to maximize the impact of Federal EPSCoR support on building competitive research infrastructure, and based on the inputs and recommendations of previous EPSCoR reviews, the head of each Federal agency administering an EPSCoR program shall—

(1) consider modifications to EPSCoR proposal solicitation, award type, and project evaluation—

(A) to more closely align with current agency priorities and initiatives;

(B) to focus EPSCoR funding on achieving critical scientific, infrastructure, and educational needs of that agency;

(C) to encourage collaboration between EPSCoR-eligible institutions and researchers, including with institutions and researchers in other States and jurisdictions;

(D) to improve communication between State and Federal agency proposal reviewers; and

(E) to continue to reduce administrative burdens associated with EPSCoR;

(2) consider modifications to EPSCoR award structures—

(A) to emphasize long-term investments in building research capacity, potentially through the use of larger, renewable funding opportunities; and

(B) to allow the agency, States, and jurisdictions to experiment with new research and development funding models; and

(3) consider modifications to the mechanisms used to monitor and evaluate EPSCoR awards—

(A) to increase collaboration between EPSCoR-funded researchers and agency staff, including by providing opportunities for mentoring young researchers and for the use of Federal facilities;

(B) to identify and disseminate best practices; and

(C) to harmonize metrics across participating Federal agencies, as appropriate.

(Pub. L. 111–358, title V, §517, Jan. 4, 2011, 124 Stat. 4013; Pub. L. 114–329, title I, §103(a), (c), (d)(1), Jan. 6, 2017, 130 Stat. 2972–2974.)

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.

AMENDMENTS

2017—Subsec. (a)(1). Pub. L. 114–329, §103(a)(1), substituted “the National” for “The National” and “such research and education” for “such research and education.”.

Subsec. (a)(2). Pub. L. 114–329, §103(a)(2), substituted “with 28 States and jurisdictions, taken together, receiving only about 12 percent of all National Science Foundation research funding;” for “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;”.

Subsec. (a)(3). Pub. L. 114–329, §103(a)(3), added par. (3) and struck out former par. (3) which read as follows: “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.”

Subsec. (a)(4) to (8). Pub. L. 114–329, §103(a)(4), added pars. (4) to (8).

Subsec. (c). Pub. L. 114–329, §103(d)(1)(A), (B), redesignated subsec. (d) as (c) and struck out former subsec. (c) which related to congressional reports.

Subsec. (c)(1). Pub. L. 114–329, §103(d)(1)(C)(i), substituted “EPSCoR” for “Experimental Programs to Stimulate Competitive Research”.

Subsec. (c)(2)(A). Pub. L. 114–329, §103(d)(1)(C)(ii)(I), substituted “each EPSCoR” for “EPSCoR and Federal EPSCoR-like programs”.

Subsec. (c)(2)(D). Pub. L. 114–329, §103(d)(1)(C)(ii)(II), substituted “each EPSCoR” for “EPSCoR and other Federal EPSCoR-like programs”.

Subsec. (c)(2)(E). Pub. L. 114–329, §103(d)(1)(C)(ii)(III), which directed substitution of “each EPSCoR” for “EPSCoR or Federal EPSCoR-like programs” was executed by substituting “among each EPSCoR” for “among EPSCoR or EPSCoR-like programs”, to reflect the probable intent of Congress.

Pub. L. 114–329, §103(d)(1)(C)(ii)(I), substituted “of each EPSCoR” for “of EPSCoR and Federal EPSCoR-like programs”.

Subsec. (c)(2)(G). Pub. L. 114–329, §103(d)(1)(C)(ii)(IV), substituted “each EPSCoR” for “EPSCoR programs”.

Subsec. (d). Pub. L. 114–329, §103(d)(1)(D), amended subsec. (d) generally. Prior to amendment, subsec. (d) related to Federal agency reports.

Pub. L. 114–329, §103(d)(1)(B), redesignated subsec. (e) as (d). Former subsec. (d) redesignated (c).

Subsec. (e). Pub. L. 114–329, §103(d)(1)(B), redesignated subsec. (f) as (e). Former subsec. (e) redesignated (d).

Subsec. (e)(1). Pub. L. 114–329, §103(d)(1)(E), substituted “EPSCoR” for “Experimental Program to Stimulate Competitive Research or a program similar to the Experimental Program to Stimulate Competitive Research”.

Subsec. (f). Pub. L. 114–329, §103(d)(1)(B), redesignated subsec. (g) as (f). Former subsec. (f) redesignated (e).

Subsec. (g). Pub. L. 114–329, §103(c), (d)(1)(B), added subsec. (g) and then redesignated it as (f).

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)<sup>1</sup> of title 20)

<sup>1</sup> See References in Text note below.

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 Education 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 opportunities and challenges, including research areas listed in subsection (a), as well as related issues such as—

(A) the management and assurance of data that are the subject of Federal laws and regulations in cloud computing environments, which laws and regulations exist on January 4, 2011;

(B) misappropriation of cloud services, piracy through cloud technologies, and other threats to the integrity of cloud services;

(C) areas of advanced technology needed to enable trusted communications, processing, and storage; and

(D) other areas of focus determined appropriate by the Director.

**(2) Unsolicited proposals**

The Director may accept unsolicited proposals that review and assess the issues described in paragraph (1). The proposals may be judged according to existing criteria of the National Science Foundation.

**(c) Report**

The Director shall provide an annual report for not less than 5 consecutive years to Congress on the outcomes of National Science Foundation investments in cloud computing research, recommendations for research focus and program improvements, or other related recommenda-