

section \$10,000,000 for each of fiscal years 2008 through 2010.

(Pub. L. 110-69, title V, §5008, Aug. 9, 2007, 121 Stat. 618.)

**§ 16536. Protecting America's Competitive Edge (PACE) graduate fellowship program**

**(a) Definition of eligible student**

In this section, the term "eligible student" means a student who attends an institution of higher education that offers a doctoral degree in a field relevant to a mission area of the Department.

**(b) Establishment**

The Secretary shall establish a graduate fellowship program for eligible students pursuing a doctoral degree in a mission area of the Department.

**(c) Selection**

**(1) In general**

The Secretary shall award fellowships to eligible students under this section through a competitive merit review process, involving written and oral interviews, that will result in a wide distribution of awards throughout the United States, as determined by the Secretary.

**(2) Criteria**

The Secretary shall establish selection criteria for awarding fellowships under this section that require an eligible student—

(A) to pursue a field of science or engineering of importance to a mission area of the Department;

(B) to demonstrate to the Secretary—

(i) the capacity of the eligible student to understand technical topics relating to the fellowship that can be derived from the first principles of the technical topics;

(ii) imagination and creativity;

(iii) leadership skills in organizations or intellectual endeavors, demonstrated through awards and past experience; and

(iv) excellent verbal and communication skills to explain, defend, and demonstrate an understanding of technical subjects relating to the fellowship; and

(C) to be a citizen or legal permanent resident of the United States.

**(d) Awards**

**(1) Amount**

A fellowship awarded under this section shall—

(A) provide an annual living stipend; and

(B) cover—

(i) graduate tuition at an institution of higher education described in subsection (a); and

(ii) incidental expenses associated with curricula and research at the institution of higher education (including books, computers, and software).

**(2) Duration**

A fellowship awarded under this section shall be up to 3 years duration within a 5-year period.

**(3) Portability**

A fellowship awarded under this section shall be portable with the eligible student.

**(e) Administration**

The Secretary, acting through the Director of Science, Engineering, and Mathematics Education—

(1) shall administer the program established under this section; and

(2) may enter into a contract with a non-profit entity to administer the program, including the selection and award of fellowships.

**(f) Authorization of appropriations**

There are authorized to be appropriated to carry out this section—

(1) \$7,500,000 for fiscal year 2008;

(2) \$12,000,000 for fiscal year 2009, including nonexpiring fellowships for the preceding fiscal year;

(3) \$20,000,000 for fiscal year 2010, including nonexpiring fellowships for preceding fiscal years;

(4) \$20,600,000 for fiscal year 2011;

(5) \$21,200,000 for fiscal year 2012; and

(6) \$21,900,000 for fiscal year 2013.

(Pub. L. 110-69, title V, §5009, Aug. 9, 2007, 121 Stat. 618; Pub. L. 111-358, title IX, §902(d), Jan. 4, 2011, 124 Stat. 4045.)

AMENDMENTS

2011—Subsec. (f)(4) to (6). Pub. L. 111-358 added pars. (4) to (6).

**§ 16537. Distinguished scientist program**

**(a) Purpose**

The purpose of this section is to promote scientific and academic excellence through collaborations between institutions of higher education and National Laboratories.

**(b) Establishment**

The Secretary shall establish a program to support the joint appointment of distinguished scientists by institutions of higher education and National Laboratories.

**(c) Qualifications**

To be eligible for appointment as a distinguished scientist under this section, an individual, by reason of professional background and experience, shall be able to bring international recognition to the appointing institution of higher education or National Laboratory in the field of scientific endeavor of the individual.

**(d) Selection**

A distinguished scientist appointed under this section shall be selected through an open, competitive process.

**(e) Appointment**

**(1) Institution of higher education**

An appointment by an institution of higher education under this section shall be filled within the tenure allotment of the institution of higher education, at a minimum rank of professor.

**(2) National Laboratory**

An appointment by a National Laboratory under this section shall be at the rank of the

highest grade of distinguished scientist or technical staff of the National Laboratory.

**(f) Duration**

An appointment under this section shall—

- (1) be for a term of 6 years; and
- (2) consist of 2 3-year funding allotments.

**(g) Use of funds**

Funds made available under this section may be used for—

- (1) the salary of the distinguished scientist and support staff;
- (2) undergraduate, graduate, and post-doctoral appointments;
- (3) research-related equipment;
- (4) professional travel; and
- (5) such other requirements as the Secretary determines to be necessary to carry out the purpose of the program.

**(h) Review**

**(1) In general**

The appointment of a distinguished scientist under this section shall be reviewed at the end of the first 3-year allotment for the distinguished scientist through an open peer-review process to determine whether the appointment is meeting the purpose of this section under subsection (a).

**(2) Funding**

Funding of the appointment of the distinguished scientist for the second 3-year allotment shall be determined based on the review conducted under paragraph (1).

**(i) Cost sharing**

To be eligible for assistance under this section, an appointing institution of higher education shall pay at least 50 percent of the total costs of the appointment.

**(j) Authorization of appropriations**

There are authorized to be appropriated to carry out this section—

- (1) \$15,000,000 for fiscal year 2008;
- (2) \$20,000,000 for fiscal year 2009;
- (3) \$30,000,000 for fiscal year 2010;
- (4) \$31,000,000 for fiscal year 2011;
- (5) \$32,000,000 for fiscal year 2012; and
- (6) \$33,000,000 for fiscal year 2013.

(Pub. L. 110-69, title V, §5011, Aug. 9, 2007, 121 Stat. 620; Pub. L. 111-358, title IX, §902(e), Jan. 4, 2011, 124 Stat. 4045.)

AMENDMENTS

2011—Subsec. (j)(4) to (6). Pub. L. 111-358 added pars. (4) to (6).

**§ 16538. Advanced Research Projects Agency—Energy**

**(a) Definitions**

In this section:

**(1) ARPA-E**

The term “ARPA-E” means the Advanced Research Projects Agency—Energy established by subsection (b).

**(2) Director**

The term “Director” means the Director of ARPA-E appointed under subsection (d).

**(3) Fund**

The term “Fund” means the Energy Transformation Acceleration Fund established under subsection (n)(1).

**(b) Establishment**

There is established the Advanced Research Projects Agency—Energy within the Department to overcome the long-term and high-risk technological barriers in the development of energy technologies.

**(c) Goals**

**(1) In general**

The goals of ARPA-E shall be—

(A) to enhance the economic and energy security of the United States through the development of energy technologies that result in—

- (i) reductions of imports of energy from foreign sources;
- (ii) reductions of energy-related emissions, including greenhouse gases; and
- (iii) improvement in the energy efficiency of all economic sectors; and

(B) to ensure that the United States maintains a technological lead in developing and deploying advanced energy technologies.

**(2) Means**

ARPA-E shall achieve the goals established under paragraph (1) through energy technology projects by—

- (A) identifying and promoting revolutionary advances in fundamental and applied sciences;
- (B) translating scientific discoveries and cutting-edge inventions into technological innovations; and
- (C) accelerating transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty.

**(d) Director**

**(1) Appointment**

There shall be in the Department of Energy a Director of ARPA-E, who shall be appointed by the President, by and with the advice and consent of the Senate.

**(2) Qualifications**

The Director shall be an individual who, by reason of professional background and experience, is especially qualified to advise the Secretary on, and manage research programs addressing, matters pertaining to long-term and high-risk technological barriers to the development of energy technologies.

**(3) Relationship to Secretary**

The Director shall report to the Secretary.

**(4) Relationship to other programs**

No other programs within the Department shall report to the Director.

**(e) Responsibilities**

The responsibilities of the Director shall include—

- (1) approving all new programs within ARPA-E;