

substantial, hinders the ability of the Federal Government to formulate policy related to workforce training.

“(3) The Secretary of Commerce has initiated—

“(A) the first study on the return on investment for United States employers using registered apprenticeships through case studies of firms in various sectors, occupations, and geographic locations to provide the business community with data on employer benefits and costs; and

“(B) discussions with officials at relevant Federal agencies about the need to collect comprehensive data on—

“(i) employer-provided worker training; and

“(ii) existing tools that could be used to collect such data.

“(b) DEVELOPMENT OF APPRENTICESHIP INFORMATION.—The Secretary of Commerce shall continue to research the value to businesses of utilizing apprenticeship programs, including—

“(1) evidence of return on investment of apprenticeships, including estimates for the average time it takes a business to recover the costs associated with training apprentices; and

“(2) data from the United States Census Bureau and other statistical surveys on employer-provided training, including apprenticeships and other on-the-job training and industry-recognized certification programs.

“(c) DISSEMINATION OF APPRENTICESHIP INFORMATION.—The Secretary of Commerce shall disseminate findings from research on apprenticeships to businesses and other relevant stakeholders, including—

“(1) institutions of higher education;

“(2) State and local chambers of commerce; and

“(3) workforce training organizations.

“(d) NEW APPRENTICESHIP PROGRAM STUDY.—The Secretary of Commerce may collaborate with the Secretary of Labor to study approaches for reducing the cost of creating new apprenticeship programs and hosting apprentices for businesses, particularly small businesses, including—

“(1) training sharing agreements;

“(2) group training models; and

“(3) pooling resources and best practices.”

[For definitions of “STEM” and “institution of higher education” as used in section 312(a)–(d) of Pub. L. 114–329, set out above, see section 2 of Pub. L. 114–329, set out as a note under section 1862s of Title 42, The Public Health and Welfare.]

## § 3724. Crowdsourcing and citizen science

### (a) Short title

This section may be cited as the “Crowdsourcing and Citizen Science Act”.

### (b) Sense of Congress

It is the sense of Congress that—

(1) the authority granted to Federal agencies under the America COMPETES Reauthorization Act of 2010 (Public Law 111–358; 124 Stat. 3982) to pursue the use of incentive prizes and challenges has yielded numerous benefits;

(2) crowdsourcing and citizen science projects have a number of additional unique benefits, including accelerating scientific research, increasing cost effectiveness to maximize the return on taxpayer dollars, addressing societal needs, providing hands-on learning in STEM, and connecting members of the public directly to Federal science agency missions and to each other; and

(3) granting Federal science agencies the direct, explicit authority to use crowdsourcing and citizen science will encourage its appropriate use to advance Federal science agency

missions and stimulate and facilitate broader public participation in the innovation process, yielding numerous benefits to the Federal Government and citizens who participate in such projects.

### (c) Definitions

In this section:

#### (1) Citizen science

The term “citizen science” means a form of open collaboration in which individuals or organizations participate voluntarily in the scientific process in various ways, including—

(A) enabling the formulation of research questions;

(B) creating and refining project design;

(C) conducting scientific experiments;

(D) collecting and analyzing data;

(E) interpreting the results of data;

(F) developing technologies and applications;

(G) making discoveries; and

(H) solving problems.

#### (2) Crowdsourcing

The term “crowdsourcing” means a method to obtain needed services, ideas, or content by soliciting voluntary contributions from a group of individuals or organizations, especially from an online community.

#### (3) Participant

The term “participant” means any individual or other entity that has volunteered in a crowdsourcing or citizen science project under this section.

### (d) Crowdsourcing and citizen science

#### (1) In general

The head of each Federal science agency, or the heads of multiple Federal science agencies working cooperatively, may utilize crowdsourcing and citizen science to conduct projects designed to advance the mission of the respective Federal science agency or the joint mission of Federal science agencies, as applicable.

#### (2) Voluntary services

Notwithstanding section 1342 of title 31, the head of a Federal science agency may accept, subject to regulations issued by the Director of the Office of Personnel Management, in coordination with the Director of the Office of Science and Technology Policy, services from participants under this section if such services—

(A) are performed voluntarily as a part of a crowdsourcing or citizen science project authorized under paragraph (1);

(B) are not financially compensated for their time; and

(C) will not be used to displace any employee of the Federal Government.

#### (3) Outreach

The head of each Federal science agency engaged in a crowdsourcing or citizen science project under this section shall make public and promote such project to encourage broad participation.

**(4) Consent, registration, and terms of use****(A) In general**

Each Federal science agency shall determine the appropriate level of consent, registration, or acknowledgment of the terms of use that are required from participants in crowdsourcing or citizen science projects under this section on a per-project basis.

**(B) Disclosures**

In seeking consent, conducting registration, or developing terms of use for a project under this subsection, a Federal science agency shall disclose the privacy, intellectual property, data ownership, compensation, service, program, and other terms of use to the participant in a clear and reasonable manner.

**(C) Mode of consent**

A Federal agency or Federal science agencies, as applicable, may obtain consent electronically or in written form from participants under this section.

**(5) Protections for human subjects**

Any crowdsourcing or citizen science project under this section that involves research involving human subjects shall be subject to part 46 of title 28, Code of Federal Regulations (or any successor regulation).

**(6) Data****(A) In general**

A Federal science agency shall, where appropriate and to the extent practicable, make data collected through a crowdsourcing or citizen science project under this section available to the public, in a machine readable format, unless prohibited by law.

**(B) Notice**

As part of the consent process, the Federal science agency shall notify all participants—

- (i) of the expected uses of the data compiled through the project;
- (ii) if the Federal science agency will retain ownership of such data;
- (iii) if and how the data and results from the project would be made available for public or third party use; and
- (iv) if participants are authorized to publish such data.

**(7) Technologies and applications**

Federal science agencies shall endeavor to make technologies, applications, code, and derivations of such intellectual property developed through a crowdsourcing or citizen science project under this section available to the public.

**(8) Liability**

Each participant in a crowdsourcing or citizen science project under this section shall agree—

- (A) to assume any and all risks associated with such participation; and
- (B) to waive all claims against the Federal Government and its related entities, except for claims based on willful misconduct, for

any injury, death, damage, or loss of property, revenue, or profits (whether direct, indirect, or consequential) arising from participation in the project.

**(9) Research misconduct**

Federal science agencies coordinating crowdsourcing or citizen science projects under this section shall make all practicable efforts to ensure that participants adhere to all relevant Federal research misconduct policies and other applicable ethics policies.

**(10) Multi-sector partnerships**

The head of each Federal science agency engaged in crowdsourcing or citizen science under this section, or the heads of multiple Federal science agencies working cooperatively, may enter into a contract or other agreement to share administrative duties for such projects with—

- (A) a for profit or nonprofit private sector entity, including a private institution of higher education;
- (B) a State, tribal, local, or foreign government agency, including a public institution of higher education; or
- (C) a public-private partnership.

**(11) Funding**

In carrying out crowdsourcing and citizen science projects under this section, the head of a Federal science agency, or the heads of multiple Federal science agencies working cooperatively—

- (A) may use funds appropriated by Congress;
- (B) may publicize projects and solicit and accept funds or in-kind support for such projects, to be available to the extent provided by appropriations Acts, from—
  - (i) other Federal agencies;
  - (ii) for profit or nonprofit private sector entities, including private institutions of higher education; or
  - (iii) State, tribal, local, or foreign government agencies, including public institutions of higher education; and

(C) may not give any special consideration to any entity described in subparagraph (B) in return for such funds or in-kind support.

**(12) Facilitation****(A) General Services Administration assistance**

The Administrator of the General Services Administration, in coordination with the Director of the Office of Personnel Management and the Director of the Office of Science and Technology Policy, shall, at no cost to Federal science agencies, identify and develop relevant products, training, and services to facilitate the use of crowdsourcing and citizen science projects under this section, including by specifying the appropriate contract vehicles and technology and organizational platforms to enhance the ability of Federal science agencies to carry out the projects under this section.

**(B) Additional guidance**

The head of each Federal science agency engaged in crowdsourcing or citizen science under this section may—

(i) consult any guidance provided by the Director of the Office of Science and Technology Policy, including the Federal Crowdsourcing and Citizen Science Toolkit;

(ii) designate a coordinator for that Federal science agency’s crowdsourcing and citizen science projects; and

(iii) share best practices with other Federal agencies, including participation of staff in the Federal Community of Practice for Crowdsourcing and Citizen Science.

**(e) Report**

**(1) In general**

Not later than 2 years after January 6, 2017, the Director of the Office of Science and Technology Policy shall include, as a component of an annual<sup>1</sup> report required under section 3719(p) of this title, a report on the projects and activities carried out under this section.

**(2) Information included**

The report required under paragraph (1) shall include—

(A) a summary of each crowdsourcing and citizen science project conducted by a Federal science agency during the most recently completed 2 fiscal years, including a description of the proposed goals of each crowdsourcing and citizen science project;

(B) an analysis of why the utilization of a crowdsourcing or citizen science project summarized in subparagraph (A) was the preferable method of achieving the goals described in subparagraph (A) as opposed to other authorities available to the Federal science agency, such as contracts, grants, cooperative agreements, and prize competitions;

(C) the participation rates, submission levels, number of consents, and any other statistic that might be considered relevant in each crowdsourcing and citizen science project;

(D) a detailed description of—

(i) the resources, including personnel and funding, that were used in the execution of each crowdsourcing and citizen science project;

(ii) the project activities for which such resources were used; and

(iii) how the obligations and expenditures relating to the project’s execution were allocated among the accounts of the Federal science agency, including a description of the amount and source of all funds, private, public, and in-kind, contributed to each crowdsourcing and citizen science project;

(E) a summary of the use of crowdsourcing and citizen science by all Federal science agencies, including interagency and multi-sector partnerships;

(F) a description of how each crowdsourcing and citizen science project advanced the mission of each participating Federal science agency;

(G) an identification of each crowdsourcing or citizen science project where data collected through such project was not made available to the public, including the reasons for such action; and

(H) any other information that the Director of the Office of Science and Technology Policy considers relevant.

**(f) Savings provision**

Nothing in this section may be construed—

(1) to affect the authority to conduct crowdsourcing and citizen science authorized by any other provision of law; or

(2) to displace Federal Government resources allocated to the Federal science agencies that use crowdsourcing or citizen science authorized under this section to carry out a project.

(Pub. L. 114-329, title IV, §402, Jan. 6, 2017, 130 Stat. 3019.)

**Editorial Notes**

REFERENCES IN TEXT

The America COMPETES Reauthorization Act of 2010, referred to in subsec. (b)(1), is Pub. L. 111-358, Jan. 4, 2011, 124 Stat. 3982, also known as the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Reauthorization Act of 2010. For complete classification of this Act to the Code, see Short Title of 2011 Amendment note set out under section 1861 of Title 42, The Public Health and Welfare, and Tables.

CODIFICATION

Section was enacted as part of the American Innovation and Competitiveness Act, and not as part of the Stevenson-Wylder Technology Innovation Act of 1980 which comprises this chapter.

**Statutory Notes and Related Subsidiaries**

DEFINITIONS

For definitions of terms used in this section, see section 2 of Pub. L. 114-329, set out as a note under section 1862s of Title 42, The Public Health and Welfare.

**CHAPTER 64—METHANE TRANSPORTATION RESEARCH, DEVELOPMENT, AND DEMONSTRATION**

Sec.	
3801.	Congressional statement of findings and declaration of policy.
3802.	Definitions.
3803.	Duties of Secretary of Energy.
3804.	Coordination with other Federal departments and agencies.
3805.	Research and development activities.
3806.	Demonstrations.
3807.	Use of methane-fueled vehicles by Federal agencies and departments.
3808.	Repealed.
3809.	Authorization of appropriations; required funding.
3810.	Relationship to other laws.

**§ 3801. Congressional statement of findings and declaration of policy**

(a) The Congress finds and declares that—

(1) gasoline and diesel fuel for vehicular use are in short supply and constitute a sizable portion of domestic petroleum consumption;

(2) methane use in fleet-operated vehicles would result in substantial reduction in oil imports;

<sup>1</sup> So in original. As amended by Pub. L. 114-329, section 3719(p) of this title requires biennial reports.