

MINING SCHOOLS ENHANCEMENT ACT

JULY 25, 2017.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. BISHOP of Utah, from the Committee on Natural Resources,
submitted the following

R E P O R T

[To accompany H.R. 2053]

[Including cost estimate of the Congressional Budget Office]

The Committee on Natural Resources, to whom was referred the bill (H.R. 2053) to amend the Surface Mining Control and Reclamation Act of 1977 to enhance and support mining and mineral engineering programs in the United States by funding activities at mining schools, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment is as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the “Mining Schools Enhancement Act”.

SEC. 2. SUPPORT FOR MINING SCHOOLS.

Section 721 of the Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1309b) is amended—

(1) by striking “The Office of Surface Mining Reclamation and Enforcement” and inserting the following:

“(a) IN GENERAL.—Subject to subsection (b), the Office of Surface Mining Reclamation and Enforcement”; and

(2) by adding at the end the following:

“(b) MINING PROGRAM SUPPORT.—

“(1) Of the amounts made available under subsection (d) for activities authorized under this section, the Director of the Office of Surface Mining Reclamation and Enforcement shall ensure that at least 70 percent is expended to enhance and support mining and mineral engineering programs in the United States by funding activities at mining schools.

“(2) In expending funds under this section, the Director shall consult with relevant stakeholders and ensure a significant opportunity for participation by undergraduate and graduate students at mining schools.

“(3) The Director shall ensure that the activities conducted under this section relate to resource development and production, and include—

“(A) studies of mining, mineral extraction efficiency, and related processing technology;

“(B) mineral economics, reclamation technology, and practices for active mining operations;

“(C) the development of reining systems and technologies that facilitate reclamation that fosters the recovery of resources at abandoned mine sites;

“(D) investigations of mineral resource extraction methods that reduce environmental and human impacts;

“(E) reducing dependence on foreign energy supplies;

“(F) enhancing the competitiveness of United States energy technology exports;

“(G) the extraction or processing of coinciding mineralization, including rare earth elements, within coal, coal processing byproduct, overburden or coal residue; and

“(H) enhancing technologies and practices related to mitigation of acid mine drainage, reforestation, and revegetation in the reclamation of land and water resources adversely affected by coal mining.

“(c) MINING SCHOOL DEFINED.—In this section the term ‘mining school’ means a mining, metallurgical, or mineral engineering program or department accredited by the Accreditation Board for Engineering and Technology, Inc., that is located at an institution of higher education (as that term is defined in section 631(a) of the Higher Education Act of 1965 (20 U.S.C. 1132(a))) in the United States.

“(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section \$10,000,000 for each of fiscal years 2018 through 2024.”.

PURPOSE OF THE BILL

The purpose of H.R. 2053 is to amend the Surface Mining Control and Reclamation Act of 1977 to enhance and support mining and mineral engineering programs in the United States by funding activities in mining schools.

BACKGROUND AND NEED FOR LEGISLATION

Within the next 10 to 15 years, approximately 70 percent of the United States’ mining industry’s technical leaders will reach retirement age. The National Research Council (NRC) identified this aging demographic within the mining sector as the “most critical issue” facing the workforce, and highlighted the “paucity of candidates to replace” the retiring workforce in the “mining-related faculty at institutions of higher knowledge.”¹ Evidencing this is the decrease in the number of accredited mining and mineral engineering programs, which has fallen from 25 in 1982 to 14 in 2007, and a corresponding decline in faculty, which fell from 120 in 1984 to 70 in 2007.

The issues of a retiring workforce and a lack of mining expertise are not limited solely to industry, but also affect the federal regulatory agencies. Forty seven percent of the Mine Safety and Health Administration’s coal sector workforce are currently eligible for retirement, while in 2016, the U.S. Environmental Protection Agency did not employ a single mining engineer in its over 15,000-employee workforce. Without sufficient numbers of mining experts, effective management and promotion of domestic mining activities cannot occur; therefore, it is crucial to encourage the training and development of mining and mineral engineers.

One factor identified by the NRC as contributing to the decrease in mining and mineral engineering programs and faculty is the “relative absence of consistent federal research funding to support

¹National Research Council, Emerging Workforce Trends in the U.S. Energy and Mining Industries: A Call to Action, at 82 (2014).

graduate programs at mining schools.”² In 1994, \$52 million had been directed through the U.S. Bureau of Mines to fund research—a majority of which was received by mining schools. However, this program was eliminated and this has been credited with being one of the root causes of weakening mining programs. Thus, one way to reinvigorate mining and mineral engineering programs would be an assurance of federal research dollars directed to mining schools.

When Congress passed the Surface Mining Control and Reclamation Act of 1977 (SMCRA, 30 U.S.C. 1201 et seq.), it identified one of the Act’s principal purpose as “. . . the conduct of research investigations, experiments, and demonstrations, in the exploration, extraction, processing, development, and production of minerals and the training of mineral engineers and scientists in the field of mining, minerals resources, and technology . . .” Currently, the Office of Surface Mining (OSM) offers a research grant program for schools, but a minor fraction of the grants are directed to mining schools. For instance, only one of 18 current or completed projects in 2014 was conducted at a mining school, while only seven of the entire 64 projects awarded over the past ten years were awarded to faculty members at mining engineering programs. To ensure the continued development of mining engineers and the statutory objectives of SMCRA are upheld, OSM should direct more of its grants towards mining and mineral engineering programs.

H.R. 2053 addresses the aforementioned issues by authorizing \$10 million for each of fiscal years 2018 through 2024 for research activities conducted under section 721 of SMCRA (30 U.S.C. 1309b). As ordered reported, the bill requires OSM to direct at least 70 percent of this research funding to mining schools to “enhance and support mining and mineral engineering programs in the United States . . .” Such funds must also provide opportunities for participation by undergraduate and graduate students at mining schools and be used to study many aspects of mining and mineral extraction, ranging from efficiency to reclamation, to promote and modernize mining practices.

COMMITTEE ACTION

H.R. 2053 was introduced on April 6, 2017, by Congresswoman Martha McSally (R-AZ). The bill was referred to the Committee on Natural Resources, and within the Committee to the Subcommittee on Energy and Mineral Resources. On June 22, 2017, the Natural Resources Committee met to consider the bill. The Subcommittee was discharged by unanimous consent. Congressman Glenn Thompson (R-PA) offered an amendment designated #1; it was adopted by unanimous consent. No further amendments were offered, and the bill, as amended, was ordered favorably reported to the House of Representatives by unanimous consent on June 27, 2017.

COMMITTEE OVERSIGHT FINDINGS AND RECOMMENDATIONS

Regarding clause 2(b)(1) of rule X and clause 3(c)(1) of rule XIII of the Rules of the House of Representatives, the Committee on

² Ibid. at 87.

Natural Resources' oversight findings and recommendations are reflected in the body of this report.

COMPLIANCE WITH HOUSE RULE XIII AND CONGRESSIONAL BUDGET ACT

1. Cost of Legislation and the Congressional Budget Act. With respect to the requirements of clause 3(c)(2) and (3) of rule XIII of the Rules of the House of Representatives and sections 308(a) and 402 of the Congressional Budget Act of 1974, the Committee has received the following estimate for the bill from the Director of the Congressional Budget Office:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, July 20, 2017.

Hon. ROB BISHOP,
*Chairman, Committee on Natural Resources,
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 2053, the Mining Schools Enhancement Act.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Jeff LaFave.

Sincerely,

MARK P. HADLEY
(For Keith Hall, Director).

Enclosure.

H.R. 2053—Mining Schools Enhancement Act

Summary: H.R. 2053 would authorize the appropriation of \$10 million a year over the 2018–2024 period for the Office of Surface Mining Reclamation and Enforcement to fund research and demonstration projects related to the environmental effects of coal mining. The bill also would require the agency to allocate at least 70 percent of those funds to institutions of higher education with accredited mining or mineral engineering programs.

Assuming appropriation of the authorized amounts, CBO estimates that implementing H.R. 2053 would cost \$41 million over the 2018–2022 period and \$29 million after 2022. Enacting the bill would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

CBO estimates that enacting the bill would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

H.R. 2053 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

Estimated cost to the Federal Government: The estimated budgetary impact of H.R. 2053 is shown in the following table. The costs of this legislation fall within budget function 300 (natural resources and environment).

| | By fiscal year, in millions of dollars— | | | | | | |
|--|---|------|------|------|------|------|---------------|
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2018– 2022 |
| INCREASES IN SPENDING SUBJECT TO APPROPRIATION | | | | | | | |
| Authorization Level | 0 | 10 | 10 | 10 | 10 | 10 | 50 |
| Estimated Outlays | 0 | 3 | 8 | 10 | 10 | 10 | 41 |

Basis of estimate: For this estimate, CBO assumes that H.R. 2053 will be enacted near the end of fiscal year 2017 and that the specified amounts will be appropriated for each fiscal year. Estimated outlays are based on historical spending patterns for similar activities. In 2016, the agency spent \$2 million on similar activities.

Pay-As-You-Go considerations: None.

Increase in long-term direct spending and deficits: CBO estimates that enacting H.R. 2053 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

Intergovernmental and private-sector impact: H.R. 2053 contains no intergovernmental or private-sector mandates as defined in UMRA and would benefit institutions of higher education that specialize in mining engineering by dedicating a greater share of federal mining research funds to support activities at such institutions. Any costs those entities might incur would result from participation in a voluntary federal program.

Estimate prepared by: Federal Costs: Jeff LaFave; Impact on State, Local, and Tribal Governments: Jon Sperl; Impact on the Private Sector: Amy Petz.

Estimate approved by: H. Samuel Papenfuss, Deputy Assistant Director for Budget Analysis.

2. General Performance Goals and Objectives. As required by clause 3(c)(4) of rule XIII, the general performance goal or objective of this bill is to amend the Surface Mining Control and Reclamation Act of 1977 to enhance and support mining and mineral engineering programs in the United States by funding activities in mining schools.

EARMARK STATEMENT

This bill does not contain any Congressional earmarks, limited tax benefits, or limited tariff benefits as defined under clause 9(e), 9(f), and 9(g) of rule XXI of the Rules of the House of Representatives.

COMPLIANCE WITH PUBLIC LAW 104–4

This bill contains no unfunded mandates.

COMPLIANCE WITH H. RES. 5

Directed Rule Making. This bill does not contain any directed rule makings.

Duplication of Existing Programs. This bill does not establish or reauthorize a program of the federal government known to be duplicative of another program. Such program was not included in any report from the Government Accountability Office to Congress pursuant to section 21 of Public Law 111–139 or identified in the

most recent Catalog of Federal Domestic Assistance published pursuant to the Federal Program Information Act (Public Law 95–220, as amended by Public Law 98–169) as relating to other programs.

PREEMPTION OF STATE, LOCAL OR TRIBAL LAW

This bill is not intended to preempt any State, local or tribal law.

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, and existing law in which no change is proposed is shown in roman):

**SURFACE MINING CONTROL AND RECLAMATION ACT
OF 1977**

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**TITLE VII—ADMINISTRATIVE AND MISCELLANEOUS
PROVISIONS**

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SEC. 721. RESEARCH.

【The Office of Surface Mining Reclamation and Enforcement】 *(a) IN GENERAL.—Subject to subsection (b), the Office of Surface Mining Reclamation and Enforcement is authorized to conduct studies, research and demonstration projects relating to the implementation of, and compliance with, title V of this Act, and provide technical assistance to states for that purpose. Prior to approving any such studies, research or demonstration projects the Director, Office of Surface Mining Reclamation and Enforcement, shall first consult with the Director, Bureau of Mines, and obtain a determination from such Director that the Bureau of Mines is not already conducting like or similar studies, research or demonstration projects. Studies, research and demonstration projects for the purposes of title IV of this Act shall only be conducted in accordance with section 401(c)(6).*

(b) MINING PROGRAM SUPPORT.—

(1) Of the amounts made available under subsection (d) for activities authorized under this section, the Director of the Office of Surface Mining Reclamation and Enforcement shall ensure that at least 70 percent is expended to enhance and support mining and mineral engineering programs in the United States by funding activities at mining schools.

(2) In expending funds under this section, the Director shall consult with relevant stakeholders and ensure a significant opportunity for participation by undergraduate and graduate students at mining schools.

(3) The Director shall ensure that the activities conducted under this section relate to resource development and production, and include—

(A) studies of mining, mineral extraction efficiency, and related processing technology;

(B) mineral economics, reclamation technology, and practices for active mining operations;

(C) the development of remining systems and technologies that facilitate reclamation that fosters the recovery of resources at abandoned mine sites;

(D) investigations of mineral resource extraction methods that reduce environmental and human impacts;

(E) reducing dependence on foreign energy supplies;

(F) enhancing the competitiveness of United States energy technology exports;

(G) the extraction or processing of coinciding mineralization, including rare earth elements, within coal, coal processing byproduct, overburden or coal residue; and

(H) enhancing technologies and practices related to mitigation of acid mine drainage, reforestation, and revegetation in the reclamation of land and water resources adversely affected by coal mining.

(c) *MINING SCHOOL DEFINED.*—In this section the term “mining school” means a mining, metallurgical, or mineral engineering program or department accredited by the Accreditation Board for Engineering and Technology, Inc., that is located at an institution of higher education (as that term is defined in section 631(a) of the Higher Education Act of 1965 (20 U.S.C. 1132(a))) in the United States.

(d) *AUTHORIZATION OF APPROPRIATIONS.*—There is authorized to be appropriated to carry out this section \$10,000,000 for each of fiscal years 2018 through 2024.

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