



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

December 18, 2017

H.R. 4375 **STEM Research and Education Effectiveness and Transparency Act**

*As ordered reported by the House Committee on Science, Space, and Technology
on November 15, 2017*

SUMMARY

H.R. 4375 would require the White House Office of Science and Technology Policy (OSTP) to establish a policy on data uniformity for certain applications related to scientific research and development (R&D) and would require the National Science Foundation (NSF) to collect and publish a biennial report on such grant application data. In addition, the bill would require NSF to report to the Congress on the effectiveness of its programs for broadening the participation of women and other underrepresented populations in science, technology, engineering, and mathematics—or STEM—programs and careers.

Using information provided by NSF and other federal agencies, CBO estimates that implementing H.R. 4375 would cost \$61 million over the 2018-2022 period, assuming appropriation of the necessary amounts.

Enacting the bill would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

CBO estimates that enacting H.R. 4375 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

H.R. 4375 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary effect of H.R. 4375 is shown in the following table. The costs of this legislation fall primarily within budget function 250 (general space, science, and technology).

	By Fiscal Year, in Millions of Dollars					2018-2022
	2018	2019	2020	2021	2022	
INCREASES IN SPENDING SUBJECT TO APPROPRIATION						
Estimated Authorization Level	10	17	12	12	12	63
Estimated Outlays	9	16	12	12	12	61

BASIS OF ESTIMATE

For this estimate, CBO assumes the legislation will be enacted in 2018 and that the estimated amounts will be appropriated each year.

Collection and Reporting of Data on Federal Research Grants

The bill would require federal agencies with at least \$100 million in R&D spending in 2017 to submit annual reports to NSF detailing record-level information on applications for R&D grants that are submitted to institutions of higher education and the Department of Energy’s national laboratories.

According to the Government Accountability Office (GAO), six agencies are the largest sources of funding for scientific R&D grants: the National Institutes of Health, NSF, the Department of Defense, the Department of Energy, the National Aeronautics and Space Administration, and the Department of Agriculture. GAO indicates those agencies collect and maintain such data in differing ways.¹ As a result, CBO expects that under H.R. 4375, certain agencies would incur higher costs associated with initiating data collection and updating their databases. CBO expects that all six agencies would face an increased workload to comply with the policy established by the OSTP and to prepare data for annual submission. Using information from the agencies, CBO estimates that implementing those provisions would cost each agency, on average, less than \$1 million annually. Most of that amount would be for additional agency personnel.

According to NSF, the agency does not currently have the resources to collect and maintain the standardized, governmentwide data on grant applications that would be required by this bill. Using information from the agency, CBO estimates that NSF would incur average annual costs of \$8 million to implement the legislation. About half of that

1. Government Accountability Office, *Women in Stem Research: Better Data and Information Sharing Could Improve Oversight of Federal Grant-Making and Title IX Compliance*, GAO-16-14 (December 2015); www.gao.gov/products/GAO-16-14.

amount would be for additional personnel; the other half would be for database maintenance.

Program Effectiveness Study

H.R. 4375 would require NSF to submit a report to the Congress on the effectiveness of NSF research and education programs for broadening the participation of women and other historically underrepresented individuals in STEM programs and careers. Using information on the cost of similar tasks, CBO estimates that implementing this provision would cost less than \$500,000 over the 2018-2019 period.

PAY-AS-YOU-GO CONSIDERATIONS: None.

INCREASE IN LONG-TERM DIRECT SPENDING AND DEFICITS

CBO estimates that enacting H.R. 4375 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

MANDATES

H.R. 4375 contains no intergovernmental or private-sector mandates as defined in UMRA.

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