

Calendar No. 46

116TH CONGRESS <i>1st Session</i>	{	SENATE	{	REPORT 116-15
--------------------------------------	---	--------	---	------------------

FEDERAL ROTATIONAL CYBER WORKFORCE PROGRAM ACT OF 2019

R E P O R T

OF THE

COMMITTEE ON HOMELAND SECURITY AND
GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

TO ACCOMPANY

S. 406

TO ESTABLISH A FEDERAL ROTATIONAL CYBER WORKFORCE
PROGRAM FOR THE FEDERAL CYBER WORKFORCE



MARCH 25, 2019.—Ordered to be printed

—
U.S. GOVERNMENT PUBLISHING OFFICE

89-010

WASHINGTON : 2019

COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS

RON JOHNSON, Wisconsin, *Chairman*

ROB PORTMAN, Ohio	GARY C. PETERS, Michigan
RAND PAUL, Kentucky	THOMAS R. CARPER, Delaware
JAMES LANKFORD, Oklahoma	MAGGIE HASSAN, New Hampshire
MITT ROMNEY, Utah	KAMALA D. HARRIS, California
RICK SCOTT, Florida	KYRSTEN SINEMA, Arizona
MICHAEL B. ENZI, Wyoming	JACKY ROSEN, Nevada
JOSH HAWLEY, Missouri	

GABRIELLE D'ADAMO SINGER, *Staff Director*

JOSEPH C. FOLIO III, *Chief Counsel*

COURTNEY J. ALLEN, *Deputy Chief Counsel for Governmental Affairs*

DAVID M. WEINBERG, *Minority Staff Director*

ZACHARY I. SCHARM, *Minority Chief Counsel*

ALEXA E. NORUK, *Minority Director of Homeland Security*

LAURA W. KILBRIDE, *Chief Clerk*

Calendar No. 46

116TH CONGRESS }
1st Session } SENATE { REPORT
116-15

FEDERAL ROTATIONAL CYBER WORKFORCE PROGRAM ACT OF 2019

MARCH 25, 2019.—Ordered to be printed

Mr. JOHNSON, from the Committee on Homeland Security and
Governmental Affairs, submitted the following

R E P O R T

[To accompany S. 406]

[Including cost estimate of the Congressional Budget Office]

The Committee on Homeland Security and Governmental Affairs, to which was referred the bill (S. 406) to establish a Federal rotational cyber workforce program for the Federal cyber workforce, having considered the same, reports favorably thereon with an amendment and recommends that the bill, as amended, do pass.

CONTENTS

	Page
I. Purpose and Summary	1
II. Background and Need for the Legislation	2
III. Legislative History	4
IV. Section-by-Section Analysis	4
V. Evaluation of Regulatory Impact	5
VI. Congressional Budget Office Cost Estimate	6
VII. Changes in Existing Law Made by the Bill, as Reported	7

I. PURPOSE AND SUMMARY

The purpose of S. 406, the Federal Rotational Cyber Workforce Program Act of 2019, is to create a rotational cyber workforce program in which Federal employees in cyber workforce positions can be detailed to another agency to perform cyber functions. This program will enable Federal cyber workforce employees to enhance

their cyber skills with experience from executing the cyber missions of other agencies.¹

II. BACKGROUND AND NEED FOR THE LEGISLATION

Federal cyber workforce management challenges have been on the High-Risk List of the Government Accountability Office (GAO) since 2003.² In that report, GAO stated that “agencies must have the technical expertise they need to select, implement, and maintain controls that protect their information systems. Similarly, the federal government must maximize the value of its technical staff by sharing expertise and information. [T]he availability of adequate technical and audit expertise is a continuing concern to agencies.”³ In 2011, GAO reported that many Federal agencies still experienced difficulty hiring employees for more technical cyber positions or for positions that require other more specialized skills.⁴ In its 2017 High Risk List, GAO reported that “the federal government needs to expand its cyber workforce planning and training efforts. Federal agencies need to enhance efforts for recruiting and retaining a qualified cybersecurity workforce and improve cybersecurity workforce planning activities.”⁵

The Federal Cybersecurity Workforce Assessment Act of 2015 initiated cyber workforce planning efforts by requiring agencies to identify cyber positions in the Federal workforce.⁶ The Office of Personnel Management (OPM), the agency tasked with managing human resources of the Federal Government, issued guidance for Federal agencies to identify their current cyber workforce positions.⁷ OPM’s guidance included a deadline of April 2019 for Federal agencies to “report their greatest skill shortages; analyze the root cause of the shortages; and provide action plans, targets and measures for mitigating the critical skill shortages.”⁸ OPM stated it would use these agency reports to “identify common needs to address from the Governmentwide perspective.”⁹

On June 23, 2018, the Office of Management and Budget (OMB) issued a government reorganization plan for the purposes of improving efficiencies in government operations and realigning the structure of the Federal Government to effectuate those improvements.¹⁰ Included in the reorganization plan is a proposal to address the cyber workforce shortage in the Federal Government.¹¹ OMB noted:

¹ On September 26, 2018, the Committee approved S. 3437, Federal Rotational Cyber Workforce Program Act of 2018. That bill is substantially similar to S. 406. Accordingly, this committee report is in large part a reproduction of Chairman Johnson’s committee report for S. 3437, S. Rep. No. 115–385.

² Gov’t Accountability Off., GAO-03-121, High-Risk Series: Protecting Information Systems Supporting the Federal Government and the Nation’s Critical Infrastructures 14–15 (Jan. 2003).

³ *Id.*

⁴ Gov’t Accountability Off., GAO-12-8, Cybersecurity Human Capital: Initiatives Need Better Planning and Coordination 20–22 (Nov. 2011).

⁵ Gov’t Accountability Off., GAO-17-317, High-Risk Series: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others 342 (Feb. 2017).

⁶ Federal Cybersecurity Workforce Assessment Act of 2015, Pub. L. No. 114–113, § 303, 129 Stat. 2242, 2975, 2975–77 (2015).

⁷ Memorandum from Mark D. Reinhold, Associate Director, Employee Services, Off. of Personnel Mgmt., to Human Resource Directors, U.S. Gov’t (Apr. 2, 2018).

⁸ *Id.*

⁹ *Id.*

¹⁰ Off. of Mgmt. and Budget, Exec. Office of the President, Delivering Government Solutions in the 21st Century: Reform Plan and Reorganization Recommendations 108 (June 21, 2018), available at <https://www.performance.gov/GovReform/Reform-and-Reorg-Plan-Final.pdf>.

¹¹ *Id.*

[E]ach Federal department and agency was responsible for addressing its own cybersecurity workforce gaps independently, which has led to disaggregated and redundant Federal programs. As a result, the Government lacks a comprehensive, risk-derived understanding of which cybersecurity skillsets the Federal enterprise needs to develop and which positions are most critical to fill.

Moreover, the manner in which departments and agencies recruit, hire, retain, and compensate cybersecurity personnel varies by agency. This uneven approach has created internal competition for talent, which in turn creates disparities and discontinuities that degrade agencies' ability to defend networks from malicious actors and respond to cyber incidents. A unified approach to attracting and retaining cybersecurity talent within the Federal Government would better support the Government's cybersecurity enterprise.¹²

The reorganization plan calls for the establishment of a unified cybersecurity Federal workforce across the Government.¹³ In order to unify the cybersecurity workforce, Federal agencies are categorizing and cataloguing their cybersecurity workforces "to better understand our current set of knowledge, skills, abilities, and identify any gaps."¹⁴ This inventory of cybersecurity workforce positions will provide "Government-wide insight into where [the] most pressing needs are, and, for the first time, enable the development of an enterprise-wide approach to the recruitment, placement, and training of cybersecurity talent."¹⁵

This bill would complement the Federal cyber workforce initiatives begun under the Federal Cybersecurity Workforce Assessment Act of 2015 and the OMB reorganization plan by creating a Federal rotational cyber workforce program in which cyber personnel can detail to other agencies to help fill skills gaps for agencies' cyber-related functions. S. 406 requires Federal agencies to determine which cyber positions should be eligible for the rotation and report those positions to OPM. OPM will then distribute a list of positions available for participation in the program to each agency. It also requires OPM, the Chief Human Capital Officers Council, and DHS to develop an operation plan for the Federal rotational cyber workforce program that establishes the procedures and requirements for the program, including the employee application and selection process and agency management of cyber employees participating in the program.

The bill limits a cyber employee's participation in the Federal rotational cyber workforce program to a period of 180 days, with the option for a 60-day extension. Once a cyber employee completes participation in the program, the employee is required to return to the Federal agency from which he or she was detailed to serve for a period of time that is equal in length to the period of the detail.

The Federal rotational cyber workforce program sunsets five years after the date of enactment of this bill. This bill also requires GAO to issue a report on the program and any effect the program

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.* at 109.

¹⁵ *Id.*

has on improving Federal employees' cyber-related skills or on intra-agency and interagency coordination of cyber functions and personnel management.

III. LEGISLATIVE HISTORY

S. 406 was introduced on February 7, 2019, by Senators Gary Peters (D-MI), John Hoeven (R-ND), Margaret Hassan (D-NH), and Ron Johnson (R-WI). The bill was referred to the Committee on Homeland Security and Governmental Affairs on February 7, 2019.

The Committee considered S. 406 at a business meeting on February 13, 2019. The legislation was passed by voice vote *en bloc* with Senators Johnson, Portman, Paul, Lankford, Romney, Scott, Enzi, Hawley, Peters, Carper, Hassan, Harris, Sinema, and Rosen present.

Consistent with Committee rules, the Committee reports the bill with a technical and conforming amendment.

IV. SECTION-BY-SECTION ANALYSIS OF THE BILL, AS REPORTED

Section 1. Short title

This section established the short title of the bill as the "Federal Rotational Cyber Workforce Program Act of 2019."

Section 2. Definitions

This section defines the terms "agency," "Council," "cyber workforce position," "Director," "employee," "employing agency," "rotational cyber workforce position," and "rotational cyber workforce program."

Section 3. Rotational cyber workforce positions

This section determines how agencies will select positions that are eligible for participation in the Federal rotational cyber workforce program.

Under subsection (a), the head of an agency determines whether a cyber workforce position is eligible for participation in the program and submits to the OPM Director a notice of such determination.

Subsection (b) requires the OPM Director, with assistance from the Chief Human Capital Officers Council and the Department of Homeland Security, to develop a list of rotational cyber workforce positions in the program and information about each position.

Subsection (c) requires the OPM Director to distribute the list developed under subsection (b) on an annual basis to each agency.

Section 4. Rotational cyber workforce program

This section prescribes the development and operation of the Federal rotational cyber workforce program.

Subsection (a) requires the OPM Director to consult with the Chief Human Capital Officers Council and the Chief Information Officer for the Department of Homeland Security and develop and issue an operation plan for the Federal rotational cyber workforce program.

Subsection (b) lists requirements for the operation plan developed in subsection (a). The operation plan must identify agencies

and establish procedures for participation in the program, such as requirements for training, education, and career development for participation and any other prerequisites or other requirements to participate. The operation plan for the program must also include performance measures and other accountability measures in order to evaluate the program. The plan must ensure voluntary participation in the program and agency approval of any participating employee. The operation plan must also establish the logistics of detailing employees between agencies or at other agencies on a non-reimbursable basis, of managing employees detailed in the program, and of returning program participants to their positions in their employing agencies after participating in the program.

Subsection (c) establishes the process by which employees are selected to participate in the program. An employee in a cyber workforce position must seek approval from their agency to apply for a rotational cyber workforce position included in the list of eligible program positions developed under subsection 3(b). When selecting participants for a rotational cyber workforce position, the agency in which that position is located must adhere to the merit system principles. The duration of a detail to a rotational cyber workforce position under this program is for a period of 180 days to up to 1 year, with an option to extend this period for up to an additional 60 days. Under this subsection, an employee participating in the program must enter into a written service agreement with the employing agency to complete a period of employment after participating in the program.

Section 5. Reporting by GAO

This section requires GAO to assess and report on the operation of the Federal rotational cyber workforce program and any effect the program has on improving employees' cyber-related skills or on intra-agency and interagency coordination of cyber functions and personnel management.

Section 6. Sunset

Under this section, the Federal rotational cyber workforce program terminates five years after the date of enactment of this bill.

V. EVALUATION OF REGULATORY IMPACT

Pursuant to the requirements of paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee has considered the regulatory impact of this bill and determined that the bill will have no regulatory impact within the meaning of the rules. The Committee agrees with the Congressional Budget Office's statement that the bill 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.

VI. CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

FEBRUARY 28, 2019.

Hon. RON JOHNSON, *Chairman,*
Committee on Homeland Security and Governmental Affairs,
U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for S. 406, the Federal Rotational Cyber Workforce Program Act of 2019.

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

Sincerely,

KEITH HALL,
Director.

Enclosure.

S. 406, Federal Rotational Cyber Workforce Program Act of 2019				
As ordered reported by the Senate Committee on Homeland Security and Governmental Affairs on February 13, 2019.				
Millions of Dollars	Direct Spending	Revenues	Net Deficit Effect	Spending Subject to Appropriation
2019	0	0	0	0
2019-2024	*	0	*	*
2019-2029	*	0	*	n.a.
Pay-as-you-go procedures apply?	Yes	Mandate Effects		
Increases on-budget deficits in any of the four consecutive 10-year periods beginning in 2030?	No	Contains intergovernmental mandate?	Contains private-sector mandate?	No

n.a. = not applicable; * = between zero and \$500,000.

S. 406 would direct the Office of Personnel Management to create policies and procedures to allow federal cybersecurity professionals to temporarily move from one agency to another for up to one year. That authority would expire five years following enactment.

CBO estimates that implementing S. 406 would cost less than \$500,000 annually over the 2019–2024 period for new regulations, staff training, and administrative expenses. Any spending would be subject to the availability of appropriated funds.

Enacting S. 406 could affect direct spending by some agencies (such as the Tennessee Valley Authority) because they are authorized to use receipts from the sale of goods, fees, and other collections to cover their operating costs. Because most of those agencies can adjust the amounts collected, CBO estimates that any net changes in direct spending by those agencies would be negligible.

The CBO staff contact for this estimate is David Hughes. The estimate was reviewed by H. Samuel Papenfuss, Deputy Assistant Director for Budget Analysis.

VII. CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

Because S. 406 would not repeal or amend any provision of current law, it would make no changes in existing law within the meaning of clauses (a) and (b) of paragraph 12 of rule XXVI of the Standing Rules of the Senate.

