Program Direction

Overview

The Office of Science (SC) Program Direction (PD) budget supports a highly skilled federal workforce to develop and oversee SC investments in basic research, and construction and operation of scientific user facilities, which are critical to the American scientific enterprise. SC research and facility investments transform our understanding of nature and advance the energy, economic, and national security of the United States. In addition, SC accelerates discovery and innovation by providing broad public access to all DOE research and development findings.

SC requires sophisticated and experienced scientific and technical program and project managers, as well as experts in acquisition; finance; legal; construction management; and environmental, safety, and health oversight. The SC basic research portfolio includes extramural grants and contracts supporting over 23,000 researchers located at over 300 institutions and the 17 DOE national laboratories, spanning all 50 states and the District of Columbia. The portfolio of 28 scientific user facilities serves over 33,000 users per year. SC also oversees ten of DOE's 17 national laboratories.

Headquarters (HQ)

The SC HQ includes the six SC research program offices (Advanced Scientific Computing Research, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, High Energy Physics, and Nuclear Physics), and the Workforce Development for Teachers and Scientists, Project Assessment, and SBIR/STTR Programs Offices, as well as several resource management functions, and HQ-based field management functions. The SC HQ federal staff:

- Conduct scientific program and research infrastructure planning, execution, and management across SC, in part by extensive engagement with the scientific community to identify research opportunities and develop priorities.
- Establish and maintain competitive research portfolios, which include high-risk, high-reward research, to achieve mission goals and objectives.
- Conduct rigorous external peer review of research proposals and ongoing programs. Each year, SC manages nearly 5,000 ongoing laboratory, university, non-profit, and private industry research awards and conducts nearly 20,000 peer reviews of new and renewal proposals.
- Provide safety, security, and infrastructure oversight and management of all SC user facilities and other current research investments.
- Provide oversight and management of all line item construction projects and other capital asset projects.
- Provide oversight and management of the maintenance and operational integrity of the ten SC-stewarded national laboratories.
- Provide policy, strategy, and resource management in the areas of laboratory oversight, information technology, grants and contracts, budget, and human capital.

Office of Scientific and Technical Information (OSTI)

OSTI fulfills the Department's responsibilities for providing public access to the unclassified results of its research investments and limited access to classified research results. DOE researchers produce over 50,000 research publications, datasets, software, and patents annually. OSTI's physical and electronic collections exceed one million research outputs from the 1940s to the present, providing access to the results of DOE's research investments. OSTI implements DOE's public access mandates, including the government-wide requirement that peer-reviewed publications resulting from federal funding is made available to the public within 12 months of publication in a journal.

Consolidated Service Center (CSC)

The CSC provides business management to support SC's federal responsibilities. These functions include legal and technical support; financial management; grant and contract processing; safety, security, and health management; intellectual property and patent management; environmental compliance; facility infrastructure operations and maintenance; and information systems development and support. As part of this, the CSC:

- Monitors the multi-appropriation, multi-program funding allocations for all ten SC national laboratories through administration of laboratory Management and Operating (M&O) contracts and is responsible for over 3,000 financial

assistance awards (grants and cooperative agreements) per year to university, non-profit, and small business-based researchers.
- Provides support to SC and other DOE programs for solicitations and funding opportunity announcements, as well as the negotiation, award, administration, and closeout of contracts and financial assistance awards using certified contracting officers and professional acquisition staff.

Site Offices

SC site offices provide contract management and critical support for the scientific mission execution at the ten SC national laboratories. This includes day to-day business management; approvals to operate hazardous facilities; safety and security oversight; leases; property transfers; sub-contracts; and activity approvals required by laws, regulations, and DOE policy. As part of this, the site offices:

- Maintain a comprehensive contract management program to ensure contractual mechanisms are managed effectively and consistently with guidelines and regulations.
- Evaluate laboratory activities including nuclear, radiological, and other complex hazards.
- Provide federal project directors to oversee construction projects and other major capital asset projects.

Highlights of the FY 2021 Request

The FY 2021 Request is $190,306,000 and will support a total level of approximately 785 FTEs. SC will utilize available human capital workforce reshaping tools to manage federal staff in a manner consistent with its long-term workforce restructuring plan as part of the DOE Agency Reform Plan[a]. SC will continue to review, analyze, and prioritize mission requirements and identify those organizations and functions aligning with Administration and Department program objectives and SC strategic goals while maximizing efficiency through functional consolidation.

The FY 2021 Request supports:

- Three-hundred (300) SC HQ federal staff, spread among the six research program offices, Workforce Development for Teachers and Scientists, Project Assessment, and SBIR/STTR Programs Offices, as well as several resource management functions, and HQ-based field management functions.
- Two (2) FTEs in the DOE Office of Planning and Management Oversight to support the Office of the Under Secretary for Science.
- Twenty-five (25) FTEs in the Office of the Chief Human Capital Officer operating the Shared Service Center (SSC) and supporting HR Advisory Offices.
- Two (2) FTEs supporting the President's Council of Advisors on Science and Technology (PCAST).[b]
- Forty-two (42) OSTI federal staff to manage SC's public access program.
- Three-hundred and seventy-seven (377) Consolidated Service Center (CSC) and site office federal staff.
- Thirty-seven (37) FTEs in Office of Chief Council within the Field Offices activity.

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[a] OMB Memo M-17-22
[b] PCAST is required by Executive Order 13539, as amended by Executive Order 13596.

Program Direction
Funding

	(dollars in thousands)			
	FY 2019 Enacted	**FY 2020 Enacted**	**FY 2021 Request**	**FY 2021 Request vs FY 2020 Enacted**
Program Direction				
Salaries and Benefits	134,139	135,611	138,597	+2,986
Travel	4,200	4,300	4,470	+170
Support Services	23,437	24,626	25,640	+1,014
Other Related Expenses	13,074	13,188	13,024	-164
Working Capital Fund	8,150	8,575	8,575	—
Total, Program Direction	**183,000**	**186,300**	**190,306**	**+4,006**
Federal FTE	810	785	785	—

Program Direction

Activities and Explanation of Changes

(dollars in thousands)

FY 2020 Enacted		FY 2021 Request		Explanation of Changes FY 2021 Request vs FY 2020 Enacted	
Program Direction	**$186,300**		**$190,306**		**+$4,006**
Salaries and Benefits	$135,611		$138,597		+$2,986
Funding supports 785 FTEs to perform scientific oversight, program and project management, essential operations support associated with science program portfolio management, and support for the Office of the Chief Human Capital Officer operating the SSC and supporting HR Advisory Offices.		The Request will support 785 FTEs to perform scientific oversight, program and project management, essential operations support associated with science program portfolio management, and support for the Office of the Chief Human Capital Officer operating the SSC and supporting HR Advisory Offices.		The increase will support the projected salary and benefit requirements for the requested FTE levels. Also, the increase reflects a one percent pay raise for federal staff in 2021, a FERS contribution increase, and increased awards pool funding.	
Funding supports Federal employees salary and benefits, including health insurance costs and retirement allocations in the Federal Employees Retirement System (FERS).		The Request will support costs associated with Federal employee benefits, including health insurance costs and retirement allocations in FERS.			
Travel	$4,300		$4,470		+$170
Funding supports facility visits where the use of electronic telecommunications is not practical for mandated on-site inspections and facility operations reviews. Ensuring scientific management, compliance, safety oversight, and external review of research funding across all SC programs requires staff to travel, since SC senior program managers are not co-located with grantees or at national laboratories.		The Request will support facility visits where the use of electronic telecommunications is not practical for mandated on-site inspections and facility operations reviews. Ensuring scientific management, compliance, safety oversight, and external review of research funding across all SC programs requires staff to travel, since SC senior program managers are not co-located with grantees or at national laboratories.		The increase will support the projected travel requirements for FY 2021.	

FY 2020 Enacted	FY 2021 Request	Explanation of Changes FY 2021 Request vs FY 2020 Enacted
Funding also supports travel for the SC Federal Advisory Committees, which will include over 170 representatives from universities, national laboratories, and industry, representing a diverse balance of disciplines, professional experience, and geography. Each of the six advisory committees provides valuable, independent advice to the Department regarding the complex scientific and technical issues that arise in the planning, management, and implementation of SC programs.	The Request will also support travel for the SC Federal Advisory Committees, which will include over 170 representatives from universities, national laboratories, and industry, representing a diverse balance of disciplines, professional experience, and geography. Each of the six advisory committees provides valuable, independent advice to the Department regarding the complex scientific and technical issues that arise in the planning, management, and implementation of SC programs.	
Funding supports the PCAST advisory committee travel.	The Request will support the PCAST advisory committee travel.	

Support Services	$24,626		$25,640		+$1,014

Funding supports select administrative and professional services including: support for the SBIR/STTR program; grants and contract processing and close-out activities; accessibility to DOE's corporate multi-billion dollar R&D program through information systems managed and administered by OSTI; travel processing; correspondence control; select reports or analyses directed toward improving the effectiveness, efficiency, and economy of services and processes; and safeguards and security oversight functions.	The Request will support select administrative and professional services including: support for the Small Business Innovation Research/Small Business Technology Transfer program; grants and contract processing and close-out activities; accessibility to DOE's corporate multi-billion dollar R&D program through information systems managed and administered by OSTI; travel processing; correspondence control; select reports or analyses directed toward improving the effectiveness, efficiency, and economy of services and processes; and safeguards and security oversight functions.	The increase will support annual escalation in contract labor rates.
Funding supports essential information technology infrastructure; necessary upgrades to SC's financial management system; ongoing operations and maintenance of IT systems; and safety management support.	The Request will support essential information technology infrastructure; necessary upgrades to SC's financial management system; ongoing operations and maintenance of IT systems; and safety management support.	The increase will support the projected costs associated with the use of the Department's Office of the Chief Information Officer Business Operations Support Services (CBOSS) contract.

FY 2020 Enacted	FY 2021 Request	Explanation of Changes FY 2021 Request vs FY 2020 Enacted
Funding supports federal staff training and education to maintain appropriate certification and update skills.	The Request will fund federal staff training and education to maintain appropriate certification and update skills.	
Other Related Expenses $13,188	$13,024	-$164
Funding supports fixed requirements associated with rent, utilities, and telecommunications; building and grounds maintenance; computer/video maintenance and support; IT equipment leases, purchases, and maintenance; and site-wide health care units. It also includes miscellaneous purchases for supplies, materials, and subscriptions.	The Request will support fixed requirements associated with rent, utilities, and telecommunications; building and grounds maintenance; computer/video maintenance and support; IT equipment leases, purchases, and maintenance; and site-wide health care units. It will also include miscellaneous purchases for supplies, materials, and subscriptions.	The decrease will account for projected fixed requirements for FY 2021.
Working Capital Fund $8,575	$8,575	$—
Funding supports the SC contribution to the WCF for business lines: building occupancy, supplies, printing and graphics, health services, corporate training services, and corporate business systems. SC research programs also contribute to WCF.	The Request will support the SC contribution to the WCF for business lines: building occupancy, supplies, printing and graphics, health services, corporate training services, and corporate business systems. SC research programs also contribute to WCF.	Projections for Working Capital Fund costs are unchanged.

Program Direction
Funding

	(dollars in thousands)			
	FY 2019 Enacted	**FY 2020 Enacted**	**FY 2021 Request**	**FY 2021 Request vs FY 2020 Enacted**
Headquarters				
Salaries and Benefits	58,995	63,672	65,604	+1,932
Travel	2,383	2,432	2,553	+121
Support Services	17,171	17,884	19,437	+1,553
Other Related Expenses	5,407	5,339	5,357	+18
Working Capital Fund	8,150	8,575	8,575	—
Total, Headquarters	**92,066**	**97,902**	**101,526**	**+3,624**
Office of Scientific and Technical Information				
Salaries and Benefits	6,109	6,216	6,384	+168
Travel	100	73	100	+27
Support Services	1,931	2,081	2,010	-71
Other Related Expenses	980	1,027	980	-47
Total, Office of Scientific and Technical Information	**9,120**	**9,397**	**9,474**	**+77**
Field Offices				
Salaries and Benefits	69,075	65,723	66,609	+886
Travel	1,717	1,795	1,817	+22
Support Services	4,335	4,661	4,193	-468
Other Related Expenses	6,687	6,822	6,687	-135
Total, Field Offices	**81,814**	**79,001**	**79,306**	**+305**
Total Program Direction				
Salaries and Benefits	134,139	135,611	138,597	+2,986
Travel	4,200	4,300	4,470	+170
Support Services	23,437	24,626	25,640	+1,014
Other Related Expenses	13,074	13,188	13,024	-164
Working Capital Fund	8,150	8,575	8,575	—
Total, Program Direction	**183,000**	**186,300**	**190,306**	**+4,006**
Federal FTE	810	785	785	—

Program Direction
Funding Detail

	(dollars in thousands)			
	FY 2019 Enacted	**FY 2020 Enacted**	**FY 2021 Request**	**FY 2021 Request vs FY 2020 Enacted**
Technical Support				
System review and reliability analyses	973	2,051	1,000	-1,051
Management Support				
Automated data processing	9,080	10,500	12,500	+2,000
Training and education	740	954	797	-157
Reports and analyses, management, and general administrative services	12,644	11,121	11,343	+222
Total, Management Support	**22,464**	**22,575**	**24,640**	**+2,065**
Total, Support Services	**23,437**	**24,626**	**25,640**	**+1,014**
Other Related Expenses				
Rent to GSA	637	637	637	—
Rent to others	1,424	1,412	1,424	+12
Communications, utilities, and miscellaneous	2,653	3,234	2,653	-581
Other services	2,181	1,978	2,131	+153
Operation and maintenance of equipment	2	—	2	+2
Operation and maintenance of facilities	1,512	1,515	1,512	-3
Supplies and materials	690	426	690	+264
Equipment	3,975	3,986	3,975	-11
Total, Other Related Expenses	**13,074**	**13,188**	**13,024**	**-164**
Working Capital Fund	**8,150**	**8,575**	**8,575**	**—**

Program Direction
Funding Summary

<div align="center">(dollars in thousands)</div>

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request	FY 2021 Request vs FY 2020 Enacted
Other	183,000	186,300	190,306	+4,006
Total, Program Direction	**183,000**	**186,300**	**190,306**	**+4,006**

Public Access[a]

The Department of Energy's Public Access Plan, issued in July 2014 in response to policy memorandum issued by the White House Office of Science and Technology Policy (OSTP), outlines DOE's model and policy for increasing public access to scholarly publications and digital data resulting from DOE research funding. DOE's enabling authorization and subsequent legislation require DOE to provide publicly available collections of unclassified R&D results; the DOE Public Access Plan added peer-reviewed, final accepted manuscripts to the types of unclassified scientific and technical information already made publicly accessible as required by these longstanding statutes. For digital data resulting from sponsored research (as defined by OMB Circular A-110), the Plan requires the submission of data management plans with funding proposals to DOE and provides guidelines for preserving and provide access to digital research data as appropriate.

Implementation of the Plan has been carried out through DOE internal agency policy directive, with requirements specified in national labs management & operating contracts and annual performance plans, and in the terms and conditions of DOE financial assistance awards (grants and cooperative agreements). Under the DOE policy, DOE-funded researchers are required to submit metadata and final accepted manuscripts to DOE or to their institutional repositories, and DOE makes these research papers freely accessible to the public within 12 months of publication through the portal DOE PAGES (Public Access Gateway for Energy and Science). DOE's public access model also includes cooperation with the publishing community and with other federal agencies. Since implementation of the DOE policy, DOE is among the top agencies in implementing public access, with DOE PAGES providing free access to over 86,400 scholarly publications resulting from DOE research funding. To promote discovery, DOE enables broad indexing of this content by commercial search engines, provides an application programming interface (API) to DOE PAGES, and includes this collection in the cross-agency search portal Science.gov.

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[a] Responds to the reporting requirement specified by the FY 2018 House Energy and Water Development Appropriations Committee Report 115-230 to provide an update on the DOE Public Access Plan; https://www.energy.gov/downloads/doe-public-access-plan; https://www.osti.gov/public-access-policy; https://www.energy.gov/datamanagement/doe-policy-digital-research-data-management.