

Program Direction

Overview

The Office of Science (SC) Program Direction (PD) budget supports a highly skilled federal workforce to develop and oversee SC investments and Administration priorities in basic research on climate change and clean energy, advanced computing, cybersecurity, fundamental science to transform manufacturing, quantum information sciences, artificial intelligence and machine learning (AI/ML), biopreparedness, critical materials, fusion energy, isotope research and production, 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 continues to increase investments in 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 nearly 32,000 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 nearly 37,000 users per year. SC oversees ten of the U.S. Department of Energy's (DOE) 17 national laboratories. SC also continues to update its business processes for awards management and research related activities to advance diversity, equity, and inclusion in its extramural research programs.

Headquarters

The SC Headquarters (HQ) includes the eight SC program offices (Advanced Scientific Computing Research, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, High Energy Physics, Nuclear Physics, Isotope R&D and Production, and Accelerator R&D and Production), Workforce Development for Teachers and Scientists, Project Assessment, and Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs Offices, as well as several resource management functions, and HQ-based field management functions.

The FY 2024 Request includes the transfer of the Artificial Intelligence and Technology Office (AITO) to SC. AITO will continue to be the principal organizer of cross-cutting AI/ML activities including research, development, demonstration, strategy, and AI activities for the DOE. AITO will continue to identify and work in collaboration with the program offices and national laboratories to address gaps in research, development, implementation, and deployment of AI investments.

The SC HQ federal staff:

- Conducts 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.
- Establishes and maintains competitive research portfolios, which include high-risk, high-reward research, to achieve mission goals and objectives.
- Conducts rigorous external peer review of research proposals and ongoing programs. Each year, SC manages over 5,000 ongoing laboratory, university, non-profit, and private industry research awards and conducts over 36,000 peer reviews of new and renewal proposals.
- Organizes, participates in, or lead committees composed of agency and/or interagency personnel.
- Provides safety, security, and infrastructure oversight and management of all SC user facilities and other current research investments.
- Provides oversight and management of all line item construction projects and other capital asset projects.
- Provides oversight and management of the maintenance and operational integrity of the ten SC-stewarded national laboratories.
- Provides policy, strategy, and resource management in the areas of laboratory oversight, information management, grants and contracts, budget, and human capital.
- Provides communications to the public to inform and ensure DOE and SC are represented in national conversation around basic energy research, including how and where it is conducted and its benefits to society. Provides ongoing collaboration across DOE programs on AI/ML investments.

Consolidated Service Center

The Consolidated Service Center (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 management. As part of this, the CSC:

- Provides necessary information technology equipment and systems to ensure connectivity between Headquarters and field sites to successfully support the mission of the Office of Science.
- 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.

Office of Scientific and Technical Information

Office of Scientific and Technical Information (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.

Highlights of the FY 2024 Request

The FY 2024 Request is \$226.2 million and will support a total level of approximately 820 full-time equivalents (FTEs). The Request supports a pay raise of 5.2 percent. 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 2024 Request supports:

- Three-hundred and seventy-one (371) SC HQ federal staff, spread among the eight 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 to support the Office of the Under Secretary for Science and Innovation.
- Twenty-four (24) FTEs in the Office of the Chief Human Capital Officer operating the Shared Service Center (SSC) and supporting HR Advisory Offices.
- Thirty-three (33) FTEs in the DOE Office of the Chief Counsel.
- Six (6) FTEs in the AITO which is transferred to SC in FY 2024.

^a OMB Memo M-17-22

- One (1) FTEs in the DOE Congressional and Intergovernmental Affairs to support Regional Offices.
- One (1) FTEs supporting the President’s Council of Advisors on Science and Technology (PCAST).^b
- Three hundred-forty (340) CSC and site office federal staff.
- Forty-two (42) OSTI federal staff to manage SC’s public access program.

In addition, SC announced a realignment in January 2023 which establishes a new streamlined SC organizational structure. With the recent legislation and appropriations, expectations are growing for SC’s contributions to important national priorities, which build on SC’s well-recognized historical achievements. The new structure will establish one pillar for Science Programs and one pillar for Operations. In most cases, SC will be moving entire offices under one of two Deputy Directors. This realignment is intended to optimize efficiency in the execution of SC work and to enable SC to deliver more results more quickly to the scientific community and the American people. This new structure, which is endorsed by DOE leadership, will further bolster and solidify organizational efficiency and partnership between the Science Programs and the Operations teams to enable and advance SC’s critical scientific mission. With this structure, SC is poised to become an even more significant foundation for the U.S. R&D enterprise.

^b PCAST is required by Executive Order 13539, as amended by Executive Order 13596.

**Program Direction
Funding**

(dollars in thousands)

	FY 2022 Enacted	FY 2023 Enacted	FY 2024 Request	FY 2024 Request vs FY 2023 Enacted
Program Direction				
Salaries and Benefits	148,799	159,319	168,485	+9,166
Travel	2,000	3,076	3,500	+424
Support Services	28,838	28,517	31,005	+2,488
Other Related Expenses	14,136	14,344	16,000	+1,656
Working Capital Fund	8,227	5,955	7,210	+1,255
Total, Program Direction	202,000	211,211	226,200	+14,989
Federal FTE	775	800	820	+20

Program Direction

Activities and Explanation of Changes

(dollars in thousands)

FY 2023 Enacted	FY 2024 Request	Explanation of Changes FY 2024 Request vs FY 2023 Enacted
Program Direction	\$211,211	\$226,200
		+\$14,989
Salaries and Benefits	\$159,319	\$168,485
		+\$9,166
The funding supports 800 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 820 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 a 5.2 percent pay raise and the projected salary and benefit requirements for the requested FTE levels. The increase will also support the transfer of six FTEs for the AITO.
The funding supports costs associated with Federal employee benefits, including health insurance costs and retirement allocations in Federal Employees Retirement System.	The Request will support costs associated with Federal employee benefits, including health insurance costs and retirement allocations in Federal Employees Retirement System.	
Travel	\$3,076	\$3,500
		+\$424
The 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 in travel reflects the return to work with travel to conferences and site visits while continuing videoconferencing instead of travel, where possible.

(dollars in thousands)

FY 2023 Enacted	FY 2024 Request	Explanation of Changes FY 2024 Request vs FY 2023 Enacted
<p>The 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.</p> <p>The funding continues to support the PCAST advisory committee travel.</p>	<p>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.</p> <p>The Request will continue to support the PCAST advisory committee travel.</p>	
<p>Support Services</p>	<p>\$28,517</p>	<p>\$31,005</p>
<p>The 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.</p> <p>The funding supports essential information technology infrastructure; necessary upgrades to SC’s financial management system; ongoing operations and maintenance of information technology systems; and safety management support.</p>	<p>The Request will support 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.</p> <p>The Request will support essential information technology infrastructure; necessary upgrades to SC’s financial management system; ongoing operations, maintenance, and enhancement of information technology systems; and safety management support.</p>	<p>The increase will support the projected support service contract requirements and a new communication strategy in FY 2024. The increase will also support a new content management system.</p>

(dollars in thousands)

FY 2023 Enacted	FY 2024 Request	Explanation of Changes FY 2024 Request vs FY 2023 Enacted	
The 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 certifications and update skills. The Request will initiate a new communication strategy to focus on outreach and enhance communication on SC activities and science discoveries, development of a new content management system for SC staff.		
Other Related Expenses	\$14,344	\$16,000	+\$1,656
The 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. The funding also supports 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; the purchasing, leasing and maintenance of IT equipment and systems to support customers' evolving needs; and site-wide health care units. It will also include miscellaneous purchases for supplies, materials, and subscriptions.	The increase will support the projected fixed requirements for FY 2024.	
Working Capital Fund	\$5,955	\$7,210	\$1,255
The funding supports a portion of the SC contribution to the Working Capital Fund for business lines: building occupancy, supplies, printing and graphics, health services, corporate training services, and corporate business systems. SC research programs also contribute to Working Capital Fund.	The Request will support a portion of the SC contribution to the Working Capital Fund for business lines: building occupancy, supplies, printing and graphics, health services, corporate training services, and corporate business systems. SC research programs also will contribute to Working Capital Fund.	The increase will support the projected Working Capital Fund requirements for FY 2024.	

**Program Direction
Funding**

(dollars in thousands)

	FY 2022 Enacted	FY 2023 Enacted	FY 2024 Request	FY 2024 Request vs FY 2023 Enacted
Program Direction				
HQ Salaries and Benefits	77,899	90,812	96,037	+5,225
HQ Travel	1,514	2,301	2,450	+149
HQ Support Services	21,710	19,787	22,005	+2,218
HQ Other Related Expenses	6,736	6,340	7,585	+1,245
HQ Working Capital Fund	8,227	5,955	7,210	+1,255
Total, Headquarters	116,086	125,195	135,287	+10,092
Field Offices Salaries and Benefits	64,092	60,541	64,024	+3,483
Field Offices Travel	436	725	1,000	+275
Field Offices Support Services	4,145	5,017	5,192	+175
Field Offices Other Related Expenses	6,333	6,904	7,148	+244
Total, Field Offices	75,006	73,187	77,364	+4,177
OSTI Salaries and Benefits	6,808	7,966	8,424	+458
OSTI Travel	50	50	50	–
OSTI Support Services	2,983	3,713	3,808	+95
OSTI Other Related Expenses	1,067	1,100	1,267	+167
Total, Office of Scientific and Technical Information	10,908	12,829	13,549	+720
Total, Program Direction	202,000	211,211	226,200	+14,989
Program Direction Summary				
Salaries and Benefits	148,799	159,319	168,485	+9,166
Travel	2,000	3,076	3,500	+424
Support Services	28,838	28,517	31,005	+2,488
Other Related Expenses	14,136	14,344	16,000	+1,656
Working Capital Fund	8,227	5,955	7,210	+1,255
Total, Program Direction	202,000	211,211	226,200	+14,989
Federal FTE	775	800	820	+20

**Program Direction
Funding Detail**

(dollars in thousands)

	FY 2022 Enacted	FY 2023 Enacted	FY 2024 Request	FY 2024 Request vs FY 2023 Enacted
Technical Support				
System review and reliability analyses	1,373	1,421	1,450	+29
Management Support				
Automated data processing	10,850	11,638	13,060	+1,422
Training and education	577	705	710	+5
Reports and analyses, management, and general administrative services	16,038	14,753	15,785	+1,032
Total, Management Support	27,465	27,096	29,555	+2,459
Total, Support Services	28,838	28,517	31,005	+2,488
Other Related Expenses				
Rent to GSA	775	847	909	+62
Rent to others	2,162	2,220	2,370	+150
Communications, utilities, and miscellaneous	2,622	3,537	3,709	+172
Other services	2,000	927	1,689	+762
Operation and maintenance of facilities	1,340	1,389	1,496	+107
Supplies and materials	491	651	691	+40
Equipment	4,746	4,773	5,136	+363
Total, Other Related Expenses	14,136	14,344	16,000	+1,656
Working Capital Fund	8,227	5,955	7,210	+1,255

Public Access

The Department of Energy fulfills Legislative and Executive requirements to provide increased 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 through the OSTI. The DOE Public Access Plan, originally required by a 2013 Office of Science and Technology Policy (OSTP) memorandum, added peer-reviewed, final accepted manuscripts to the types of unclassified scientific and technical information already made publicly accessible as required by 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 ensuring access to digital research data as appropriate. In 2022, OSTP updated its public access guidance to agencies, requiring new agency public access plans for providing immediate access to accepted manuscripts, rather than the 12-month embargo in the 2013 memorandum; immediate access to data underlying publications; and wide adoption of persistent identifiers (PIDs). PIDs are an essential element in promoting research integrity, reproducibility, and discoverability.

Following OSTP review, DOE will implement its new Plan through 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). As under the previous policy, DOE-funded researchers are required to submit metadata and final accepted manuscripts to DOE, and DOE will make these research papers freely and immediately accessible to the public through the portal DOE PAGES (Public Access Gateway for Energy and Science), developed and hosted by OSTI. Since implementation of the DOE policy, DOE is among the top agencies in implementing public access, with DOE PAGES providing free access to over 180,000 scholarly publications resulting from DOE research funding. For scientific data, DOE will implement new data management plan requirements, enabling immediate access to data underlying publications and expanded access to other data. For PIDs, DOE has taken a leadership role in the federal government in assigning persistent identifiers to research outputs and will build on these efforts to expand PIDs in DOE's searchable metadata to include PIDs for DOE-funded researchers, their outputs, and organizations.