Science Program Direction

Program Mission

Science Program Direction consists of three subprograms: Program Direction, Science Education, and Field Operations. Program Direction is the funding source for the Office of Science (SC) Federal staff that directs and administers a broad spectrum of scientific disciplines and provides technical and administrative support directly related to Science in Headquarters, the Chicago and Oak Ridge Operations Offices, and the Berkeley and Stanford Site Offices. Science Education sponsors programs that enable college and university students and faculty to take advantage of fellowship and research opportunities at the National Laboratories and user facilities, all designed to promote interest in science, math, engineering, and technology fields. Field Operations, and the core Federal staff responsible for providing these services to the many different Departmental programs at the Chicago and Oak Ridge Operations Offices.

The **Program Direction** subprogram supports the overall direction of technical and scientific activities in the Basic Energy Sciences; Nuclear Physics; High Energy Physics; Biological and Environmental Research; Advanced Scientific Computing Research; and Fusion Energy Sciences programs and for managing laboratory infrastructure; security, environment, safety and health; administrative resources; policy; and planning. It provides funding for salaries and benefits, travel, support services, and other related expenses, including the Working Capital Fund.

The **Science Education** subprogram supports four educational human resource development programs. The Department is committed to math, science, engineering, and technology education programs to help provide a technically trained and diverse workforce for the Nation.

- The Energy Research Undergraduate Laboratory Fellowship Program (ERULF), formerly known as the Laboratory Cooperative Program, is designed to provide educational training and research experiences at DOE laboratories for highly motivated undergraduate students. These opportunities complement academic programs and introduce students to the unique intellectual and physical resources present at the DOE laboratories. Appointments are available during the spring, summer, and fall terms. These research opportunities have also been extended in a pilot pre-service teacher program (PST) with the National Science Foundation, to undergraduate students who are preparing for careers in math, science, engineering or technology teaching.
- The National Science BowlOProgram is a highly publicized academic competition among high school students who answer questions on scientific topics in astronomy, biology, chemistry, mathematics, physics, earth, computer and general science. This program was created to encourage high school students across the Nation to excel in math and science and to pursue careers in those fields. Since its inception, more than 60,000 high school students have participated in regional tournaments leading up to the national finals. This program provides the students, and teachers who have prepared them, a forum to receive national recognition for their talent and hard work.
- The Albert Einstein Distinguished Educator Fellowship Program supports outstanding science and mathematics teachers, who provide insight, extensive knowledge, and practical experience to the Legislative and Executive branches. This program is in compliance with the Albert Einstein Distinguished Educator Act of 1994 (signed into law in November 1994). The law gives DOE

responsibility for administering the program of distinguished educator fellowships for elementary and secondary school mathematics and science teachers.

The DOE Community College Institute (CCI) of Biotechnology, Environmental Science, and Computing provides educational human resource development experiences at several DOE National Laboratories for highly motivated community college students. Each laboratory offers a 10-week summer experience for selected students from a regional consortium of community colleges collaborating with DOE and that laboratory. This experience is a collaboration among DOE National Laboratories and the American Association of Community Colleges.

The **Field Operations** subprogram enables the Chicago and Oak Ridge Operations Offices to manage programs, projects, laboratories, facilities, grants and contracts in support of science and technology, energy research, and environmental management activities under their purview. Field Operations provides the salaries and benefits, travel, and support services for the core administrative staff that perform managerial, business, fiduciary, contractual, and technical support functions and the day-to-day requirements of operating an office, i.e., rent, utilities, communications, information technology, office equipment, etc. The Oakland Operations Office, previously funded in this subprogram, is now funded in the National Nuclear Security Administration (NNSA) consistent with the field restructuring management reform initiated on October 1, 2000.

Program Goals

- Fund Federal staff and related expenses necessary to provide overall management direction of SC's scientific research and technology programs.
- Enable the Director of SC to serve as the Department's science advisor for formulation and implementation of basic and fundamental research policy.
- Sustain U.S. leadership in math, science, technology, and engineering by leveraging DOE resources in partnership with laboratories and facilities, other Federal agencies, academia and industry that contribute to the development of a diverse scientific and technical workforce for the 21st century.
- Provide management and administrative services that enable the Operations Offices to continue environmental cleanups; support the national laboratories and research facilities; institute environment, safety and health initiatives; maintain communications with stakeholders; create public and private partnerships; and take advantage of reindustrialization opportunities.

Program Objectives

Program Direction

- To develop, direct, and administer a complex and broadly diversified program of mission-oriented, basic and applied research and development designed to support new and improved energy, environmental, and health technologies.
- To manage the design, construction, and operation of forefront scientific research facilities for use by the Nation's scientific community, including the Spallation Neutron Source Project.
- To conduct independent technical assessments; peer reviews; and evaluate research proposals, programs, and projects.
- To enhance international collaboration and leverage the U.S. investment in research and development.

To review, analyze, and where appropriate, champion the recommendations of SC's Federallychartered advisory committees: the Fusion Energy Sciences Advisory Committee; High Energy Physics Advisory Panel; Department of Energy/National Science Foundation (DOE/NSF) Nuclear Science Advisory Committee; Basic Energy Sciences Advisory Committee; Biological and Environmental Research Advisory Committee; and the Advanced Scientific Computing Advisory Committee.

Science Education

- To provide opportunities and effective mechanisms for a diverse group of students and faculty to participate in research at the Department's laboratories related to SC's research programs, with a focus on undergraduates.
- To provide opportunities for participants to improve their communications skills through oral and written presentations of their research experience.

Field Operations

- To provide the day-to-day managerial, business, fiduciary, contractual, and technical foundation necessary to support programmatic missions in the areas of science and technology, energy research, and environmental management.
- To improve the operational efficiency through the development and implementation of integrated business management systems.
- To maintain the field infrastructure in an environment that is safe and hazard free.
- To improve communications with customers, stakeholders, and the public.

Significant Accomplishments and Program Shifts

SCIENCE ACCOMPLISHMENTS

Program Direction

- Achieved technical excellence in SC programs despite managing one of the largest, most diversified, and complex basic research portfolios in the Federal Government with a relatively small Federal and contractor support staff.
- Based on results of genomics and structural biology research, redirected resources to the "Genomes to Life" research program and implemented this research as recommended by the Biological and Environmental Research Advisory Committee, incorporating and expanding the Microbial Cell Project.
- Concluded the international agreement for U.S. participation in the Large Hadron Collider project. Signatories include the Secretary of Energy and the Director of the National Science Foundation. Execution of the project is ongoing.
- Transferred management responsibility for newly generated wastes at Ames Laboratory, Argonne National Laboratory/East, Brookhaven National Laboratory, Lawrence Berkeley National Laboratory, Pacific Northwest National Laboratory, and Princeton Plasma Physics Laboratory from the Office of Environmental Management to SC.
- Planned and managed a complex, scientific R&D program to advance the knowledge base needed for an attractive fusion energy source.

- Refined the framework of appropriate international arrangements needed to carry out SC programs in a most cost-effective manner.
- Responded to recommendations from the Secretary of Energy Advisory Board and chartered a working group to prepare an Integrated Program Plan for fusion energy sciences. The Plan will be available early in 2001 and will describe the technical activities necessary for fusion program success and the relationships among these activities.
- Delivered the procurement module of the Information Management for Science (IMSC) system, a major business management corporate system within SC.
- Provided multiple information technology (IT) improvements as requested by the SC Headquarters business customers to assist them in carrying out the SC mission, e.g., refreshed 33 percent of laptops and customer workstations, made Internet Explorer 5.01 available, etc.
- Developed and initiated the implementation of SC's Cyber Security Plan.
- Implemented an "Information Architecture" process at the Chicago Operations Office, in accordance with the Information Technology Management Reform Act of 1996, that is compatible with the Information Architecture already implemented in SC Headquarters.
- Integrated direct safeguards and security responsibilities with line operations.
- Made organizational changes consistent with the principles established by Secretarial direction and subsequent management restructuring reforms unfolding as part of implementing the National Nuclear Security Administration (NNSA), including aligning the Berkeley and Stanford Site Offices under SC and relinquishing the Oakland Operations Office and the Y-12 Area Office to NNSA.

Science Education

- The Energy Research Undergraduate Laboratory Fellowship Program has implemented an innovative, interactive Internet system to receive and process hundreds of student applications for summer, fall, and spring semester research appointments at participating DOE laboratories. The automated system is virtually paperless and provides an excellent example of how the Internet can be used to streamline the operation of the Department's research participation programs. The on-line application system now has pre- and post-surveys that quantify student knowledge, performance and improvement, and allows SC to measure program effectiveness and track students in their career path.
- Through special recruitment efforts, the Energy Research Undergraduate Laboratory Fellowship Program has attracted a diverse group of students using the electronic application. Nearly 20 percent of those submitting applications were from under-represented ethnic groups. Approximately 40 percent of the applications were females, and more than 25 percent were from low-income families. In the summer of 1999, more than 400 appointments were made through the new application process and in the summer of 2000 more than 500 appointments were made through the new application process.
- Five additional regional competitions were held in conjunction with DOE's National Science Bowl
 O More than 9,000 high school students participated in the 53 regional science bowl tournaments.
- The Albert Einstein Distinguished Educator Fellowship Program placed 4 outstanding K-12 science, math, and technology teachers in Congressional offices and 1 at DOE, as directed by legislation. The

National Aeronautics and Space Administration and the National Science Foundation contributed funds to place 7 additional Einstein Fellows in those agencies.

- In FY 2000, SC piloted for the second year, its DOE Community College Institute of Biotechnology, Environmental Science, and Computing. In the summer of 2000, 118 community college students attended a 10-week scientific research experience at 6 DOE multipurpose laboratories. Almost 60 percent of the participating students came from under-represented groups in math, science, engineering, and technology; many were "non-traditional" students.
- The Community College Institute of Biotechnology, Environmental Science, and Computing received recognition as a semifinalist in the Harvard "Innovations in American Government Awards Program 2000." It was one of 96 semifinalists out of an original applicant pool of 1,300.

Field Operations

- Implemented the reorganization, resulting from the establishment of the NNSA required by the FY 2000 Defense Authorization and subsequent management reforms.
- In support of the Energy and Water Development Appropriations Act requirement under Section 310(A) and Section 311 of Public Law 106-60, Laboratory Funding Plans were prepared and overhead reviews of prime contractors were accomplished.
- Closed 400 contracts and grants.
- Improved contracting practices to become more competitive in the award process by holding contractors more accountable in the execution of Government contracts and moved to a performance-based contracting strategy.
- Successfully awarded the new contract to UT-Battelle, LLC, for the management of Oak Ridge National Laboratory (ORNL) at Oak Ridge.
- Awarded the new protective services contract to Wackenhut Services, Inc., which provides uniformed guards for the safeguards and security functions at the Y-12 Plant, Oak Ridge National Laboratory, East Tennessee Technology Park (ETTP), Federal Building, and Office of Scientific and Technical Information.

FACILITY ACCOMPLISHMENTS

Program Direction

- Completed the B-factory and its detector at the Stanford Linear Accelerator Center within scope and budget, and on schedule.
- Strengthened integrated safety and security management and infrastructure management at the national laboratories.
- Enhanced neutron science capability at the Los Alamos Neutron Science Center.
- Designed and continued construction of the Neutrinos at the Main Injector project at the Fermi National Accelerator Laboratory.
- Began construction of the Spallation Neutron Source at the Oak Ridge National Laboratory in FY 2000.

Field Operations

 Successfully tested, validated, and completed all critical computer systems at the Operations Offices and major laboratories for Y2K with no glitches.

PROGRAM SHIFTS

- In FY 1999, SC became the Lead Program Secretarial Office (LPSO) for Chicago, Oak Ridge, and Oakland Operations Offices. Then in October 2000, DOE changed the field structure and realigned work performed on behalf of NNSA under NNSA organizations.
- The FY 2001 Energy and Water Development Appropriations Act (H.R. 4733-23, Public Law 106-907), prohibited the Department from using appropriated funds to pay personnel engaged in concurrent service or duties in DOE and NNSA. As a result, the Oakland Operations Office is now part of NNSA and reports directly to the Deputy Administrator for Defense Programs (DP) instead of SC. The Oakland Operations Office Manager and staff, other than those who work on behalf of SC programs, are designated as NNSA employees.
- The Berkeley and Stanford Site Offices have oversight responsibilities for the Lawrence Berkeley National Laboratory and the Stanford Linear Accelerator Center, respectively, and report directly to the SC Director instead of the Oakland Operations Office Manager. The Y-12 Area Office reports to DP instead of to the Oak Ridge Operations Office Manager.
- A portion of SC's Program Direction budget, in the "Field Operations" subprogram, funded the administrative and management functions at Oakland. With the October 2000 realignment, this subprogram will not fund Oakland activities beginning in FY 2002.
- The FY 2001 Energy and Water Development Appropriations Act (H.R. 4733-23, Public Law 106-907) directed the Department to integrate safeguards and security responsibilities with line operations. Beginning in FY 2002, SC will support the safeguards and security federal staffing functions at the Oak Ridge Operations Office within the Program Direction subprogram.

Funding Profile

	(dollars in thousands)				
	FY 2000 Comparable Appropriation	FY 2001 Original Appropriation	FY 2001 Adjustments	FY 2001 Comparable Appropriation	FY 2002 Request
Science Program Direction					
Program Direction	57,505 ^a	51,438	+9,642 ^a	61,080	72,525
Science Education	4,472 ^b	4,500	-40 ^b	4,460	5,460
Field Operations	58,514 ^{cd}	83,307	-21,941 ^d	61,366	64,400
Subtotal, Science Program Direction	120,491	139,245	-12,339	126,906	142,385
General Reduction for Safeguards and Security	0	-408	408	0	0
Omnibus Rescission	0	-305	305	0	0
Subtotal, Science Program Direction	120,491	138,532	-11,626	126,906	142,385
Pending Budget Amendment	0	0	0	0	2,000 ^e
Total, Science Program Direction	120,491	138,532	-11,626	126,906	144,385
Staffing (FTEs)					
Headquarters (FTEs)	259	284	0	284	284
Field (FTEs)	94	62	+43	105	107
Field Operations (FTEs)	555	732	-176	556	551
Total, FTEs	908	1,078	-133	945	942

Public Law Authorization:

Public Law 95-91, "Department of Energy Organization Act" Public Law 103-62, "Government Performance and Results Act of 1993"

^b Excludes \$28,000 in FY 2000 and \$30,000 in FY 2001 for S&S activities transferred to consolidated S&S program in FY 2001.

^c Excludes \$362,000 in FY 2000 for S&S activities transferred to consolidated S&S program in FY 2001.

^d Excludes \$19,872,000 in FY 2000 and \$21,381,000 in FY 2001 for transfer of Oakland Operations Office to NNSA in FY 2002. Excludes \$378,000 in FY 2001 for S&S activities transferred to consolidated S&S program in FY 2001.

^e A Budget Amendment transferring \$2,000,000 from this program will be submitted shortly. The narrative description for this program has already been adjusted to reflect the revised levels.

^a Includes \$603,000 in FY 2000 for Waste Management activities transferred from the Office of Environmental Management in FY 2001. Includes \$1,901,000 in FY 2000 and \$2,661,000 in FY 2001 transferred from Field Operations to Program Direction for SC site offices. Includes \$7,141,000 in FY 2000 and \$7,094,000 in FY 2001 for Program Direction related Safeguards and Security (S&S) activities transferred from consolidated S&S program in FY 2002.

(dollars in thousands) FY 2000 FY 2001 FY 2002 \$ Change % Change Albuquerque Operations Office 0 National Renewable Energy Laboratory 120 100 -20 -16.7% **Chicago Operations Office** 0 Ames National Laboratory 0 50 +50 +100.0% Argonne National Laboratory 602 430 750 +320 +74.4% 420 Brookhaven National Laboratory 558 650 +230+54.8% Fermi National Laboratory Laboratory 0 50 100 +50+100.0% Princeton Plasma Physics Laboratory 0 110 100 -10 -9.1% Chicago Operations Office..... 29.488 31,774 33,046 +1,272+4.0% Total, Chicago Operations Office..... 30,648 32,784 34,696 +1,912+5.8% Idaho Operations Office Idaho National Engineering and 0 40 100 Environmental Laboratory +60+150.0% Idaho Operations Office..... 0 35 -35 -100.0% 0 Total, Idaho Operations Office..... 0 75 100 +25 +33.3% **Oakland Operations Office** Lawrence Berkeley National Laboratory 613 445 750 +305 +68.5% Stanford Linear Accelerator Center..... 0 125 150 +25+20.0% Berkeley and Stanford Site Offices 2,985 3,130 3.262 +132 +4.2% Oakland Operations Office 0 0 548 0 0.0% Total, Oakland Operations Office 4,146 3,700 4,162 +462 +12.5% Oak Ridge Operations Office Oak Ridge Institute for Science and 704 Education 1,120 950 +246 +34.9% Oak Ridge National Laboratory 642 0 0 0 0.0% **Thomas Jefferson National Accelerator** 45 100 0 +55 +122.2%Facility..... Oak Ridge Operations Office 41,304 43,960 47,265 +3,305+7.5% Total, Oak Ridge Operations Office 43,066 44,709 48,315 +3,606+8.1% **Richland Operations Office** Pacific Northwest National Laboratory 293 0 100 +100 +100.0% Richland Operations Office 308 650 800 +150 +23.1% Total, Richland Operations Office..... 601 650 900 +250+38.5%

Funding by Site

	(dollars in thousands)					
	FY 2000 FY 2001 FY 2002 \$ Change %					
Washington Headquarters	42,030	44,868	54,112	+9,244	+20.6%	
Subtotal, Science Program Direction	120,491 ^{a b}	126,906	142,385	+15,479	+12.2%	
Pending Budget Amendment	0	0	2,000 ^c	+2,000		
Total, Science Program Direction	120,491	126,906	144,385	+17,479	+1.4%	

^a Includes \$603,000 in FY 2000 for Waste Management activities transferred from the Office of Environmental Management in FY 2001. Also includes \$7,141,000 in FY 2000 and \$7,094,000 in FY 2001 for Program Direction related S&S activities transferred from consolidated S&S program in FY 2002. Excludes \$362,000 in FY 2000 for S&S activities transferred to consolidated S&S program in FY 2001. Also excludes \$17,971,000 in FY 2000 and \$18,720,000 in FY 2001 for transfer of Oakland Operations Office to NNSA in FY 2002.

^b Excludes \$28,000 in FY 2000 for S&S activities transferred to consolidated S&S program in FY 2001.

^c A Budget Amendment transferring \$2,000,000 from this program will be submitted shortly. The narrative description for this program has already been adjusted to reflect the revised levels.

Site Description

Ames National Laboratory

Ames Laboratory (Ames), located in Ames, Iowa, is an integrated part of Iowa State University. Ames was formally established in 1947, by the Atomic Energy Commission, because of its successful development and efficient process in producing high-purity uranium metal in large quantities for atomic energy. Today, Ames pursues a broad range of priorities in the chemical, materials, engineering, environmental, mathematical and physical sciences. Educational activities supported at the laboratory are directed towards providing hands-on research experiences for undergraduate students and faculty participants on state-of-the-art equipment while engaging them in important issues at the forefront of scientific inquiry.

Argonne National Laboratory

Argonne National Laboratory (ANL) in Argonne, Illinois, is a multi-program laboratory located on a 1,700-acre site in suburban Chicago. Argonne research falls into 4 broad categories: basic science, scientific facilities, energy resources, and environmental management. ANL has a satellite site located in Idaho Falls, Idaho. This site occupies approximately 900 acres and is the home of most of Argonne's major nuclear reactor research facilities. Educational activities supported at the laboratory are directed towards providing hands-on research experiences for undergraduate students and faculty participants on state-of-the-art equipment while engaging them in important issues at the forefront of scientific inquiry.

Berkeley Site Office

The Berkeley Site Office provides institutional program management oversight in the execution of science programs contracted through Lawrence Berkeley National Laboratory and with US industries and universities.

Brookhaven National Laboratory

Brookhaven National Laboratory is a multi-program laboratory located on a 5,200-acre site in Upton, New York. Brookhaven creates and operates major facilities available to university, industrial, and government personnel for basic and applied research in the physical, biomedical, and environmental sciences, and in selected energy technologies. Educational activities supported at the laboratory are directed towards providing hands-on research experiences for undergraduate students and faculty participants on state-of-the-art equipment while engaging them in important issues at the forefront of scientific inquiry.

Chicago Operations Office

Chicago is responsible for the integrated management of its five performance-based contractor laboratory sites--Argonne National Laboratory, Brookhaven National Laboratory, Fermi National Accelerator Laboratory, Princeton Plasma Physics Laboratory, and Ames Laboratory; and two government-owned and government-operated federal laboratories--Environmental Measurements Laboratory and New Brunswick Laboratory. Chicago has oversight responsibility for more than 10,000 contractor employees located at various site offices across the Nation. This responsibility includes ensuring the security and environmental safety of the taxpayer's investment--approximately 16,000 acres of land with a physical plant worth approximately \$5.8 billion. Chicago is often noted as a leader in both intellectual property matters and management of more than 2,000 active procurement instruments. Several Departmental programs rely on these patent services and the expertise within this Center of Excellence for Acquisitions and Assistance.

Idaho National Engineering and Environmental Laboratory

The Idaho National Engineering and Environmental Laboratory (INEEL) is located on 890 square miles in the southeastern Idaho desert. Other INEEL research and support facilities are located in nearby Idaho Falls. Within the laboratory complex are nine major applied engineering, interim storage and research and development facilities, operated by Bechtel, B&W Idaho for the U.S. Department of Energy. Today, INEEL is solving critical problems related to the environment, energy production and use, U.S. economic competitiveness, and national security. Educational activities supported at the laboratory are directed towards providing hands-on research experiences for undergraduate students and faculty participants on state-of-the-art equipment while engaging them in important issues at the forefront of scientific inquiry.

Lawrence Berkeley National Laboratory

Lawrence Berkeley National Laboratory is a multi-program laboratory located in Berkeley, California, on a 200-acre site adjacent to the Berkeley campus of the University of California. The Laboratory is dedicated to performing leading-edge research in the biological, physical, materials, chemical, energy, and computer sciences. The Laboratory also operates unique user facilities available to qualified investigators. Educational activities supported at the laboratory are directed towards providing hands-on research experiences for undergraduate students and faculty partic ipants on state-of-the-art equipment while engaging them in important issues at the forefront of scientific inquiry.

National Renewable Energy Laboratory

The National Renewable Energy Laboratory (NREL) is located on a 300-acre campus at the foot of South Table Mountain in Golden, Colorado. It is the world leader in renewable energy technology development. Since its inception in 1977, NREL's sole mission has been to develop renewable energy and energy efficiency technologies and transfer these technologies to the private sector. Educational activities supported at the laboratory are directed towards providing hands-on research experiences for undergraduate students and faculty participants on state-of-the-art equipment while engaging them in important issues at the forefront of scientific inquiry.

Oak Ridge National Laboratory

Oak Ridge National Laboratory (ORNL) is a multi-program laboratory located on a 24,000-acre site in Oak Ridge, Tennessee. Scientists and engineers at ORNL conduct basic and applied research and development to create scientific knowledge and technological solutions that strengthen the nation's leadership in key areas of science; increase the availability of clear, abundant energy; restore and protect the environment; and contribute to national security. Educational activities supported at the laboratory are directed towards providing hands-on research experiences for undergraduate students and faculty participants on state-of-the-art equipment while engaging them in important issues at the forefront of scientific inquiry.

Oak Ridge Operations Office

Oak Ridge has oversight responsibility for ORNL, East Tennessee Technology Park (ETTP), Paducah Gaseous Diffusion Plant, Portsmouth Gaseous Diffusion Plant, Y-12 Plant, and the government owned and operated Oak Ridge Institute for Science and Education (ORISE). Oak Ridge has oversight responsibility for more than 15,000 contractor employees located at these sites, as well as responsibility for over 43,000 acres of land and approximately 46,000,000 square feet of facility space, valued at over \$12 billion. ORNL has responsibility for the Spallation Neutron Source project (construction began in FY 2000). The Y-12 Plant has recently resumed weapons production operations, and the ETTP is responsible for utilizing DOE assets by recycling metals, the sale of precious metals, and the disposition of uranium. Other major initiatives at Oak Ridge include reducing environmental risk; reducing the Y-12 weapons footprint; re-industrializing the ETTP and some parts of the Y-12 Plant for commercial use; the revitalization of the scientific infrastructure; and creating public and private partnerships for regional economic development. Oak Ridge is also recognized as one of the Department's three Financial Centers of Excellence.

Oak Ridge Institute for Science and Education

Oak Ridge Institute for Science and Education (ORISE) is located on a 150-acre site in Oak Ridge, Tennessee. ORISE conducts research into modeling radiation dosages for novel clinical, diagnostic, and therapeutic procedures. In addition, ORISE coordinates several research fellowship programs and the peer review of all Basic Energy Sciences funded research. ORISE will now manage and administer ORNL undergraduate research opportunities for students and faculty.

Pacific Northwest National Laboratory

Pacific Northwest National Laboratory (PNNL) is a multi-program laboratory located on 640 acres at the Department's Hanford site in Richland, Washington. The Laboratory conducts research in the area of environmental science and technology and carries out related national security, energy, and human health programs. Educational activities supported at the laboratory are directed towards providing hands-on research experiences for undergraduate students and faculty participants on state-of-the-art equipment while engaging them in important issues at the forefront of scientific inquiry.

Princeton Plasma Physics Laboratory

Princeton Plasma Physics Laboratory (PPPL) is a program-dedicated laboratory (Fusion Energy Sciences) located on 72 acres in Princeton, New Jersey. The primary mission of PNNL is to develop the scientific understanding and the innovations, which will lead to an attractive fusion energy source. Associated missions include conducting world-class research along the broad frontier of plasma science and providing the highest quality of scientific education. Educational activities supported at the laboratory are directed towards providing hands-on research experiences for undergraduate students and faculty participants on state-of-the-art equipment while engaging them in important issues at the forefront of scientific inquiry.

Richland Operations Office

Richland is responsible for and manages all environmental cleanup and science and technology development at the 560 square mile Hanford Site, coordinating closely with contractor companies hired to manage and complete the work of the world's largest cleanup project. The primary contractors are Fluor Daniel Hanford and its subcontractors, the Bechtel Hanford, Inc, the Hanford Environmental

Health Foundation, and the Battelle Memorial Institute, which serves as the contractor for Laboratory operations of the Pacific Northwest National Laboratory. Richland also manages the cooperative agreement with Associated Western Universities to administer research appointments at National Laboratories and universities, for undergraduate students and faculty, as part of the Office of Science funded Education Programs.

Stanford Linear Accelerator Center

Stanford Linear Accelerator Center (SLAC) is a program-dedicated laboratory (High Energy Physics) located on 426 acres in Menlo Park, California. SLAC is a national basic research laboratory, probing the structure of matter at the atomic scale with x-rays and at much smaller scales with electron and positron beams. SLAC scientists perform experimental and theoretical research in elementary particle physics using electron beams, plus a broad program of research in atomic and solid state physics, chemistry, biology, and medicine using synchrotron radiation. There are also active programs in the development of accelerators and detectors for high-energy physics research and of new sources and instrumentation for synchrotron radiation research. Educational activities supported at the laboratory are directed towards providing hands-on research experiences for undergraduate students and faculty participants on state-of-the-art equipment while engaging them in important issues at the forefront of scientific inquiry.

Stanford Site Office

The Stanford Site Office provides institutional program management oversight in the execution of basic research at the Stanford Linear Accelerator Center, a national laboratory operated under a contract with Stanford University.

Thomas Jefferson National Accelerator Facility

Thomas Jefferson National Accelerator Facility (Jefferson Lab) is a program-dedicated laboratory (Nuclear Physics) located on 273 acres in Newport News, Virginia. Jefferson Lab is a basic research laboratory built to probe the nucleus of the atom to learn more about the quark structure of matter. The Laboratory gives scientists a unique and unprecedented probe to study quarks, the particles that make up protons and neutrons in an atom's nucleus. Educational activities supported at the laboratory are directed towards providing hands-on research experiences for undergraduate student and faculty participants on state-of-the-art equipment while engaging them in important issues at the forefront of scientific inquiry.

Program Direction

Mission Supporting Goals and Objectives

Program Direction provides the Federal staffing resources and associated costs required for overall direction and execution of SC program and advisory responsibilities. Program Direction supports staff in the High Energy Physics, Nuclear Physics, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, Advanced Scientific Computing Research, Multiprogram Energy Laboratories-Facilities Support, and Energy Research Analyses programs, including management, resource, policy, and technical support staff. The staff includes scientific and technical personnel as well as program support personnel in the areas of budget and finance; general administration; grants and contracts; information technology management; policy review and coordination; infrastructure management; construction management; safeguards and security; and environment, safety and health. This program also provides staffing resources at the Chicago and Oak Ridge Operations Offices directly involved in executing SC programs.

Program Direction also includes resources to cover the costs of centrally provided goods and services procured through the Working Capital Fund at Headquarters, such as supplies, rent, telecommunications, desktop infrastructure, etc.

	(dollars in thousands, whole FTEs)				
	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Chicago Operations Office		<u> </u>			
Salaries and Benefits	3,790	3,826	4,036	+210	+5.5%
Travel	214	227	227	0	0.0%
Support Services	160	240	240	0	0.0%
Other Related Expenses	195	309	309	0	0.0%
Total, Chicago Operations Office	4,359	4,602	4,812	+210	+4.6%
Full Time Equivalents	31	37	37	0	0.0%
Berkeley and Stanford Site Offices					
Salaries and Benefits	2,310	2,400	2,532	+132	+5.5%
Travel	121	130	130	0	0.0%
Support Services	0	0	0	0	0.0%
Other Related Expenses	554	600	600	0	0.0%
Total, Berkeley and Stanford Site Offices	2,985	3,130	3,262	+132	+4.2%
Full Time Equivalents	26	26	26	0	0.0%

Funding Schedule

Science/Science Program Direction/ Program Direction

	(dollars in thousands, whole FTEs)				
	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Oak Ridge Operations Office			•	•	
Salaries and Benefits	2,820	3,633	4,050	+417	+11.5%
Travel	151	163	163	0	0.0%
Support Services	3,446	4,134	5,340	+1,206	+29.2%
Other Related Expenses	1,796	976	976	0	0.0%
Total, Oak Ridge Operations Office	8,213	8,906	10,529	+1,623	+18.2%
Full Time Equivalents	37	42	44	+2	+4.8%
Headquarters					
Salaries and Benefits	30,334	32,878	35,953	+3,075	+9.4%
Travel	1,449	1,514	1,514	0	0.0%
Support Services	5,992	5,350	7,250	+1,900	+35.5%
Other Related Expenses	4,173	4,700	9,205	+4,505	+95.9%
Total, Headquarters	41,948	44,442	53,922	+9,480	+21.3%
Full Time Equivalents	259	284	284	0	0.0%
Total Science					
Salaries and Benefits	39,254	42,737	46,571	+3,834	+9.0%
Travel	1,935	2,034	2,034	0	0.0%
Support Services	9,598	9,724	12,830	+3,106	+31.9%
Other Related Expenses	6,718	6,585	11,090	+4,505	+68.4%
Total, Science Program Direction	57,505	61,080	72,525	+11,445	+18.7%
Total, Full Time Equivalents	353	389	391	+2	+0.5%

Detailed Program Justification

Salaries and Benefits	39,254	42,737	46,571	
	FY 2000	FY 2001	FY 2002	
	(dollars in thousands)			

Supports 391 Full Time Equivalents (FTEs). Enables the Federal staff to provide program guidance and administrative and technical support for a broad spectrum of scientific disciplines and support the Berkeley and Stanford Site Offices and safeguards and security functions at the Oak Ridge Operations Office. In FY 2002, SC will continue to focus on human capital management and planning with the goal of building and sustaining a talented and diverse workforce, offsetting existing and projected shortfalls in the scientific and technical areas, and manage programs and grants in a safe, efficient, and effective manner. **Performance will be measured** based on SC receiving, processing, and coordinating merit peer reviews on 2,000 research proposals; issuing 2,500 procurement actions; and managing 3,500 existing research grants. The funding increase provides for the salary pay raise, increases in personnel benefits, recruitment incentives to attract and encourage scientific and technical experts to accept positions in SC, and 2 FTEs aligned with security responsibilities at the Oak Ridge Operations Office (+\$3,834,000).

Fravel	1,935	2,034	2,034
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Travel includes all costs of transportation of persons, subsistence of travelers, and incidental travel expenses in accordance with Federal travel regulations.

Support Services	9,598	9,724	12,830
11	/		

Provides funding for general administrative and technical expertise (16 percent), information technology (IT) (40 percent), and safeguards and security support (37 percent) within SC and corporate project management efforts in the Department (7 percent). The \$3,106,000 increase supports maintaining the current IT infrastructure in Headquarters (+\$1,000,000), providing adequate safeguards and security resources at the Oak Ridge Operations Office (+\$1,206,000), and SC's contribution to the development of metrics and processes that will improve project management within DOE (+\$900,000).

- Continue day-to-day operations within SC, e.g., mailroom operations; travel management; environment, safety and health support; and administering the Small Business Innovation Research program.
- Standardize, integrate, and invest in IT that will best support improved mission accomplishment and promote IT efficiencies consistent with the provisions of the Information Technology Management Reform Act of 1996. SC provides a real-time computer Helpdesk, incorporates new technologies and maintains corporate systems that support grants management, other major business functions, and research setting applications. SC was able to accommodate IT enhancements within existing funding without having to seek new budget authority for improving the electronic operating environment until FY 2002. To continue current operations, an increase of \$1,000,000 is requested in FY 2002, for a total of \$4,334,000 IT support in Headquarters. The increase enables SC to improve Internet tools and make information and corporate systems accessible from any location around the world; enhance cyber security capabilities; continue planned enhancements; and retire legacy systems all as outlined in SC's 5-Year Information Management Strategic Plan.

(dollars in thousands)

FY 2000	FY 2001	FY 2002
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Performance will be measured monthly through joint review by the business customer(s), Information Management Board, and the Information Management staff responsible for delivering the clearly defined and prioritized products and services. Specifically,

- At least 50 percent of the information management services available through the desktop will be available through remote access.
- Email capability and network systems will be operational and available 99 percent, 24 hours a day.
- Through customer assessments, attain a 75 percent or more rating on productivity improvements directly related to information management enhancements.
- Support security functions at the Oak Ridge Operations Office, e.g., classifying/declassifying records, processing personnel clearances, securing and handling classified and unclassified information, and providing protective forces to safeguard assets, property, and human resources. The \$1,206,000 increase will enable the Oak Ridge Operations Office to acquire the services necessary to maintain a secured environment within the Federal Building and across the Oak Ridge Reservation.
- Provide funding for the corporate Facility Information Management System (FIMS). FIMS is a web-based application that manages the inventory of the DOE infrastructure management analysis effort. It is one of the many tools used to support the Department's efforts in re-engineering processes and metrics to ensure that facilities and infrastructure are being managed adequately. In FY 2002, funding will support the maintenance and operation of the web-based application, hardware, software, and programmer services. The increase of \$200,000 is SC's contribution to maintaining this system.
- Provide contract support to develop processes, tools, and metrics to ensure that projects are managed adequately. In FY 2002, emphasis will be placed on reforming processes for project management and the acquisition of large facilities throughout the Department to better adhere to project schedules and budgets. The Office of Engineering and Construction Management, within the Office of Chief Financial Officer, will manage a Departmental Project Management Tracking and Control System to monitor the status of projects in terms of cost, schedule, and technical performance. The \$700,000 increase is SC's contribution to this corporate effort.

Other Related Expenses

6,718 6,585 11,090

Provides funds for a variety of tools, goods, and services that support the Federal workforce, including acquisitions made through the Working Capital Fund (WCF), computer and office equipment, publications, training, etc. The \$4,505,000 increase will support WCF consumption (+\$505,000), and Corporate Research & Development (R&D) Portfolio Management Environment (PME) efforts (+\$4,000,000).

SC will incur new assessments under the WCF. The \$505,000 increase will support the increase in cost for rental space, projected increments in usage, and new services, e.g., DOEnet infrastructure, email/video conference capabilities, and more users taking advantage of remote access capabilities.

(dollars in thousands)				
FY 2000	FY 2001	FY 2002		

In FY 2002, \$4,000,000 is requested to support PME. SC will modernize and streamline the Department's R&D management processes by supporting the design, development and testing of the R&D tracking and reporting module and start defining the specifications for the program execution module. The full PME implementation is to occur in stages over a three-year period. DOE funds a vast amount of energy-related research in several areas and currently lacks a central reliable source to extract the research data. The R&D facilities performing the work follow their own research management processes tailored to their expertise and methods of operation. The information collected and stored to support their management process is often in different formats and at different levels of resolution. This makes the overall management of DOE-funded research a difficult challenge. The PME will become the technology infrastructure, providing information integration methodologies, and process enhancement that will enable electronic cradle-to-grave tracking of research projects, information sharing across programs, and snapshots of the department's R&D. In the end, DOE will improve its management of R&D data, provide a corporate view across the complex, align with applicable laws and report information to Congress.

Total, Program Direction	57,505	61,080	73,525

Explanation of Funding Changes from FY 2001 to FY 2002

	FY 2001 vs. FY 2002 (\$000)
Salaries and Benefits	
 Supports the increase in cost-of-living, locality pay, within grades, promotions, and awards for 391 FTEs. 	+3,834
Support Services	
 Maintain the current information technology infrastructure in Headquarters, e.g., Internet tools, cyber security; data recovery, password protection, major business and research setting functions, remote access, etc. 	+1,000
Provides adequate protection within the Federal Building and across the Reservation in Oak Ridge, Tennessee in line with the work scope and services to be rendered through protective forces, processing personnel clearances, and	
classifying documents.	+1,206
 Support the Department's Facility Information Management System. 	+200
 Support the Department's efforts in developing processes, tools, and metrics to insure that projects are being managed adequately. 	+700

Other Related Expenses

 Supports incremental cost and projected usage of goods and services provided the Working Capital Fund, e.g., office space, supplies, printing/graphics, DOEr email/televideo conferencing, remote access, etc. 	by net, +505
 Support Corporate Research & Development (R&D) Portfolio Management Environment (PME) 	+4,000
Total Funding Change, Program Direction	+11,445

Support Services

	(dollars in thousands)					
	FY 2000	FY 2001	FY 2002	\$ Change	% Change	
Technical Support Services						
Test and Evaluation Studies	800	526	1,426	+900	+171.1%	
Total, Technical Support Services	800	526	1,426	+900	+171.1%	
Management Support Services						
ADP Support	3,798	4,074	5,074	+1,000	+24.5%	
Administrative Support	5,000	5,124	6,330	+1,206	+23.5%	
Total, Management Support Services	8,798	9,198	11,404	+2,206	+24.0%	
Total, Support Services	9,598	9,724	12,830	+3,106	+31.9%	

Other Related Expenses

	(dollars in thousands)						
	FY 2000	FY 2001	FY 2002	\$ Change	% Change		
Training	105	115	115	0	0.0%		
Working Capital Fund	3,545	3,700	4,205	+505	+13.6%		
Information Technology Hardware and Software/Maintenance Acquisitions	1,649	1,220	1,220	0	0.0%		
Other	1,419	1,550	5,550	+4,000	+258.1%		
Total, Other Related Expenses	6,718	6,585	11,090	+4,505	+68.4%		

Science Education

Mission Supporting Goals and Objectives

For over 50 years, the Department of Energy and its predecessor agencies have supported science and engineering education programs involving university faculty as well as pre-college teachers and students. In the past, the Department has provided support for university students, pre-college teachers, and college faculty through hands-on research experiences at the Department's National Laboratories and research facilities.

The involvement of DOE's National Laboratories in faculty/student research is perhaps the most distinguishing feature of the agency's participation over the years in math, science, and engineering education. No other Federal agency has an extensive network of research laboratories and facilities as DOE does with its unique physical and human resources. These laboratories and facilities have been the key to the Department's contribution over time to the Nation's math, science, and engineering education goals.

As we enter the new century, the Nation continues to face important challenges related to recruiting and retaining students who have historically been underrepresented (e.g., women, disabled persons, African Americans, Hispanic Americans, and Native Americans) in science and engineering fields. Guided by recent reports such as the National Research Council on Undergraduate Education Achievement Trends in Science and Engineering, the Office of Science will continue to design an undergraduate research fellowship program that couples academic study with extensive hands-on research experiences in a variety of DOE national laboratory settings. This program is intended to enhance the likelihood that underrepresented students will successfully complete their undergraduate studies and progress to graduate school. Historically, over two-thirds of undergraduates who have participated in DOE programs such as this have gone on to graduate school in disciplines directly relevant to the DOE science and technology missions.

	(dollars in thousands)					
	FY 2000	FY 2001	FY 2002	\$ Change	% Change	
Energy Research Undergraduate Laboratory Fellowships	3,002	2,500	2,910	+410	+16.4%	
National Science Bowl $\hat{oldsymbol{O}}$ Program	550	550	550	0	0.0%	
Albert Einstein Distinguished Educator Fellowship Program	204	810	500	-310	-38.3%	
Community College Institute of Biotechnology, Environmental Science, and Computing	716	600	1,500	+900	+150.0%	
- Total, Science Education	4,472	4,460	5,460	+1,000	+22.4%	

Funding Schedule

Detailed Program Justification

	(dollars in thousands)				
	FY 2000	FY 2001	FY 2002		
Energy Research Undergraduate Laboratory					
Fellowships	3,002	2,500	2,910		

The Energy Research Undergraduate Laboratory Fellowship Program (ERULF) is the oldest of the Science Education programs. The ERULF program supports a diverse group of students at our National Laboratories in individually mentored research experiences. Through these unique and highly focused experiences these students will comprise a repository of talent to help the DOE meet its science mission goals. The paradigms of the program are: 1) students apply on a competitive basis and are matched with mentors working in the students' fields of interest; 2) students spend an intensive 10-16 weeks working under the individual mentorship of resident scientists; 3) students must each produce an abstract and formal research report; 4) students attend seminars that broaden their view of career options and help them understand how to become members of the scientific community; 5) program goals and outcomes are measured based on students' research papers, students' abstracts, surveys and outside evaluation. An undergraduate student journal was recently created which publishes selected full research papers and all abstracts of students in the program. The National Science Foundation (NSF) has begun a collaboration with this program as of FY 2001.

The program will ensure a steady flow of students with technical expertise into the Nation's pipeline of workers in both academia and industry. A system is being created to track students in their academic career paths.

A sub-component of the ERULF Program is the Pre-Service Teacher Pilot Program, performed in partnership with the National Science Foundation (NSF). This program brings undergraduate students, who are preparing to become K-12 math, science or technology teachers to the National Laboratories to learn about the world of scientific research through hands-on experiences. Students' performance is measured in the same ways as ERULF students, with the additional component of developing an educational module, under the guidance of a master teacher, which connects their research experiences to the classroom setting.

SC will manage and support the National Science Bowl \hat{O} for high school students from across the country for DOE. Since its inception, more than 60,000 high school students have participated in this event. The National Science Bowl \hat{O} is a highly publicized academic competition among teams of high school students who answer questions on scientific topics in astronomy, biology, chemistry, mathematics, physics, earth, computer, and general science. In 1991, DOE developed the National Science Bowl \hat{O} to encourage high school students from across the Nation to excel in math and science and to pursue careers in those fields. The National Science Bowl \hat{O} provides the students and teachers a forum to receive national recognition for their talent and hard work. Saturday seminars in the latest scientific topics have been added to the National Science Bowl \hat{O} weekend. Students participating in the National Science Bowl \hat{O} will be tracked to see the long term impact on their academic and career choices.

	(dollars in thousands)				
	FY 2000	FY 2001	FY 2002		
Albert Einstein Distinguished Educator Fellowship					
Program	204	810	500		

The Albert Einstein Fellowship Awards for outstanding K-12 science, math, and technology teachers continues to be a strong pillar of the program for bringing real classroom and education expertise to our education programs and outreach activities. This Congressional initiative, established by the Albert Einstein Distinguished Educator Fellowship Act of 1994, has enabled the Department to maintain an enriching relationship with the Triangle Coalition for Science and Technology Education. The Triangle Coalition administers the program for the Department of Energy through the recruitment, application, selection and placement of the Einstein Fellows and evaluation of the program.

The DOE Community College Institute (CCI) of Biotechnology, Environmental Science, and Computing was originally a collaborative effort between DOE and its National Laboratories with the American Association of Community Colleges and specified member institutions. Through a recent Memorandum of Understanding with the NSF, students in NSF programs are participating in this program. This program is designed to address shortages, particularly at the technician and paraprofessional levels, in the rapidly expanding areas of biotechnology, environmental science, and computing, that will help develop the human resources needed to continue building the Nation's capacity in these critical areas for the next century. The Institute provides a ten-week research fellowship for highly qualified community college students at a DOE National Laboratory. The paradigms of the program are: 1) students apply on a competitive basis and are matched with mentors working in the students' field of interest; 2) students spend an intensive 10 weeks working under the individual mentorship of resident scientists; 3) students must each produce an abstract and formal research report; 4) students attend professional enrichment activities, workshops and seminars that broaden their view of career options, help them understand how to become members of the scientific community, and enhance their communication and other professional skills; and 5) program goals and outcomes are measured based on students' research papers, students' abstracts, surveys and outside evaluation. An undergraduate student journal was recently created which publishes selected full research papers and all abstracts of students in the program. The National Science Foundation has begun a collaboration with this program as of FY 2001. This will allow NSF's undergraduate programs to include a DOE community college internship in their opportunities provided to students.

Fotal, Science Education	4,472	4,460	5,460
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Explanation of Funding Changes from FY 2001 to FY 2002

	FY 2002 vs. FY 2001 (\$000)
 Under the ERULF, additional students and faculty, including undergraduate students who are preparing to teach math, science or technology, can be supported. The participants will perform research at a DOE National Laboratory or with an industry/business partner. The DOE, through a new Memorandum of Understanding, is partnering with the NSF to provide human resource development through opportunities in DOE National Laboratories. 	+410
This decrease brings the funding for Einstein Fellowships to the level required to support the on-going level of effort. One-time needs in FY 2001 resulted in an increase in funding not needed in FY 2002 for Einstein Fellowships	-310
 Expands the Community College Institute program to more students, including faculty student teams. The DOE is partnering with the NSF in a new Memorandum of Understanding, to provide human resource development through opportunities in DOE National Laboratories for students and faculty participating in NSF programs. These programs will help increase the diversity in the science, math, engineering, and technology fields and serve as a model to other Federal agencies wishing to expand the scientific/technical workforce of the Nation. 	+900
Total Funding Changes, Science Education	+1,000

Field Operations

Mission Supporting Goals and Objectives

The Field Operations subprogram pays the salaries and benefits of the Federal personnel located at the Chicago and Oak Ridge Operations Offices. Consistent with the field restructuring effective October 1, 2000, as part of implementing NNSA, the Oakland Operations Office that was funded in this subprogram in FY 2001, is funded by NNSA in FY2002. The Chicago and Oak Ridge staff are responsible for managing the daily business, administrative and technical services that support Science and other DOE program-specific work performed within the field and laboratory structure. The following administrative and technical services are provided by this core matrix staff: financial stewardship, personnel management, contract and procurement acquisition, labor relations, legal counsel, public and congressional liaison, intellectual property and patent management, environmental compliance, safety and health management, infrastructure operations maintenance, information systems development and support, and reindustrialization.

In addition, this subprogram provides funding for the fixed requirements associated with rent, utilities, and telecommunications. Other requirements such as information systems support, administrative support, mail services, printing and reproduction, travel, certification training, vehicle acquisition and maintenance, equipment, classified/unclassified data handling, records management, health care services, guard services, and facility and ground maintenance are also included. These infrastructure requirements are relatively fixed. The offices are also responsible for supplying office space and materials for the Office of Inspector General located at each site.

Other operational requirements funded include occasional contractor support to perform ecological surveys, cost validations, and environmental assessments; ensure compliance with Defense Nuclear Facilities Safety Board safety initiatives; abide by site preservation laws and regulations; and perform procurement contract closeout activities. Departmental and programmatic initiatives, as well as regional and congressional constituents, influence these requirements.

Funding Schedule

	(dollars in thousands, whole FTEs)					
	FY 2000	FY 2001	FY 2002	\$ Change	% Change	
Chicago Operations Office						
Salaries and Benefits	20,121	20,917	22,067	+1,150	+5.5%	
Travel	350	400	400	0	0.0%	
Support Services	1,500	1,589	1,650	+61	+3.8%	
Other Related Expenses	2,954	3,456	3,617	+161	+4.7%	
Total, Chicago Operations Office	24,925	26,362	27,734	+1,372	+5.2%	
Full Time Equivalents	233	236	236	0	0.0%	
Oakland Operations Office						
Salaries and Benefits	548	0	0	0	0.0%	
Travel	0	0	0	0	0.0%	
Support Services	0	0	0	0	0.0%	
Other Related Expenses	0	0	0	0	0.0%	
Total, Oakland Operations Office	548	0	0	0	0.0%	
Full Time Equivalents	7	0	0	0	0.0%	
Oak Ridge Operations Office						
Salaries and Benefits	26,173	27,704	28,777	+1,073	+3.9%	
Travel	200	321	321	0	0.0%	
Support Services	2,866	3,004	3,125	+121	+4.0%	
Other Related Expenses	3,802	3,975	4,443	+468	+11.8%	
Total, Oak Ridge Operations Office	33,041	35,004	36,666	+1,662	+4.7%	
Full Time Equivalents	315	320	315	-5	-1.6%	
Total Field Operations						
Salaries and Benefits	46,842	48,621	50,844	+2,223	+4.6%	
Travel	550	721	721	0	0.0%	
Support Services	4,366	4,593	4,775	+182	+4.0%	
Other Related Expenses	6,756	7,431	8,060	+629	+8.5%	
Total, Field Operations	58,514	61,366	64,400	+3,034	+4.9%	
Full Time Equivalents	555	556	551	-5	-0.9%	

Science/Science Program Direction/ Field Operations

Detailed Program Justification

	(dollars in thousands)				
	FY 2000	FY 2001	FY 2002		
Salaries and Benefits	46,842	48,621	50,844		

Supports 551 FTEs at the Chicago and Oak Ridge Operations Offices. Provides the Federal staff that is responsible for management and administrative functions and services in support of the many different programs, projects, laboratories, facilities, contracts, and grants under their purview. The funding increase supports the Federal pay raise (+\$2,223,000). The FTE level is 5 less than appropriated in FY 2001. The FTE reduction is directly related to aligning safeguards and security functions with line management organizations (NNSA and Science) at the Oak Ridge Operations Office.

Enables field staff to participate on task teams, work various issues, conduct compliance reviews, and perform contractor oversight to ensure implementation of DOE orders and regulatory requirements at the facilities under their purview. Also provides for attendance at conferences and training classes, and permanent change of station relocation, etc.

Chicago and Oak Ridge use a variety of administrative and technical assistance services that are critical to their success in meeting the local customer needs. These services include information technology (IT) and routine computer maintenance support, operating communications centers,

processing/distributing mail, travel management centers, contract close-out activities, copy centers, trash removal, facility and grounds maintenance, filing and retrieving records, etc. Cost of living for these general administrative services represents an increase of \$182,000.

Funds day-to-day requirements associated with operating a viable office, including fixed costs associated with occupying office space, utilities, telecommunications and other costs of doing business, e.g., postage, printing and reproduction, copier leases, site-wide health care units, assessments including records storage, etc. Employee training and development and the supplies and furnishings used by the Federal staff are also included. The \$629,000 increase supports several items.

- Fund incremental cost for utility bills and renting the Federal Building in Oak Ridge and the space occupied by the Chicago Operations Office (+\$209,000).
- Acquire compatible computer hardware and software at both Chicago and Oak Ridge to support cyclical desktop replacement, standardize and synchronize equipment with SC's operating systems, and IT investment and remote access capability solutions (+\$45,000).
- Fund goods and services provided through Working Capital Fund (WCF) (+\$46,000).
- Reimbursement for records stored at the National Archives Records storage facility (+\$329,000).

Total, Field Operations	58,514	61,366	64,400	

Explanation of Funding Changes from FY 2001 to FY 2002

	FY 2001 vs. FY 2002 (\$000)
Salaries and Benefits	
 Supports the increase in cost-of-living, locality pay, within grades, promotions, and awards, etc., for 551 FTEs. The FTE level is 5 less than FY 2001. The FTE reduction is directly related to aligning safeguards and security functions with line management organizations (NNSA and Science) at the Oak Ridge Operations Office. 	+2,223
Support Services	
 Provides cost of living for general administrative and technical support services 	+182
Other Related Expenses	
The increase reflects the cost of living associated with essential day-to-day operations, i.e., rent and utility bills, telecommunications bills, computer and office equipment, goods and services under Working Capital Fund, and reimbursement for records stored at the National Archives, etc.	+629
Total Funding Change, Field Operations	+3,034

Support Services

	(dollars in thousands)					
	FY 2000	FY 2001	FY 2002	\$ Change	% Change	
Technical Support Services						
Economic and Environmental Analysis	0	0	0	0	0.0%	
Total, Technical Support Services	0	0	0	0	0.0%	
Management Support Services						
ADP Support	1,825	1,915	1,988	+73	+3.8%	
Administrative Support	2,541	2,678	2,787	+109	+4.1%	
Total, Management Support Services	4,366	4,593	4,775	+182	+4.0%	
Total, Support Services	4,366	4,593	4,775	+182	+4.0%	

Other Related Expenses

	(dollars in thousands)				
	FY 2000	FY 2001	FY 2002	\$ Change	% Change
Training	475	695	695	0	0.0%
Printing and Reproduction	225	436	436	0	0.0%
Rent & Utilities & Telecommunication	4,350	4,625	4,834	+209	+4.5%
Information Technology Hardware, Software, and Maintenance	620	525	570	+45	+8.6%
Working Capital Fund	154	154	200	+46	+29.9%
Other	932	996	1,325	+329	+33.0%
Total, Support Services	6,756	7,431	8,060	+629	+8.5%