

SALARIES AND EXPENSES

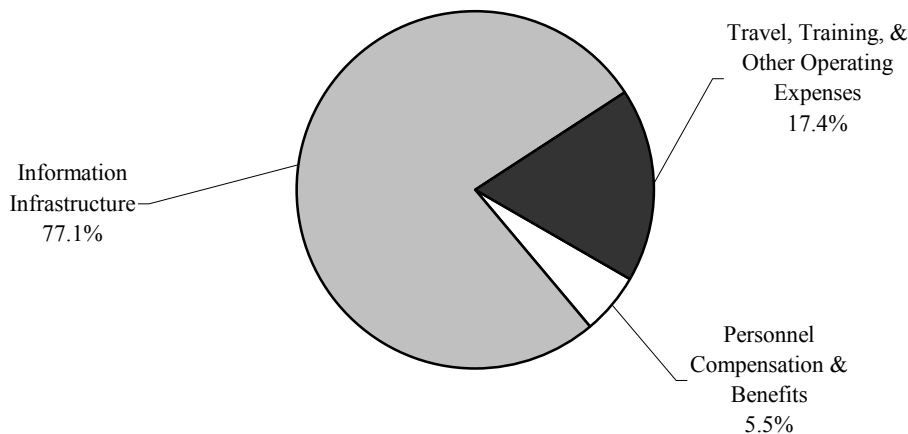
SALARIES AND EXPENSES

\$225,700,000

The FY 2004 Request for Salaries and Expenses (S&E) is \$225.70 million, an increase of \$22.75 million, or 11.2 percent, over the FY 2003 Request of \$202.95 million. Adequate funding for Salaries and Expenses, particularly for Information Technology, is critical to the efficient operations of the agency. While NSF's overall budget has grown, and significant advances have been made through the use of innovative information technology, funding for infrastructure operating expenses has, until the FY 2003 Request, remained essentially flat. From FY 2000 to FY 2002, additional functional capability and applications were deployed, including the Financial Accounting System, the Integrated Payroll System, the Award System, and FastLane enhancements, with no commensurate investment in supporting infrastructure.

For information technology, the NSF FY 2004 Request includes funds to continue implementation of critical investments needed in government-wide initiatives, innovative next-generation electronic capabilities and tools, and supporting hardware, software, and tools necessary to manage and operate an infrastructure that can support NSF electronic business processes. The strategic framework for this investment is discussed in greater detail in the chapter on NSF's Administration and Management (A&M) portfolio. *Note that the Office of Inspector General is described in a separate section of the justification.*

Percent Distribution of S&E Increase Totaling \$22.75 Million



This increase will support a focused set of overdue investments that foster NSF's continuing commitment to outstanding customer service:

- \$17.54 million will support investments in the development, implementation, operation, and upgrade of NSF's information infrastructure, enable next generation eGovernment capabilities and improvements to information security and physical security through the use of "smart" technologies. IT investments account for 77.1 percent of the S&E increase.
- \$3.96 million will support investments in staff development and training, as well as planning activities related to the President's Management Agenda, increasing rental costs for NSF's workspace, increases for travel and general operating expenses associated with NSF's programmatic responsibilities, and contractual costs for the Business Analysis and the

National Academy of Public Administration review. *Note that this is discussed in greater detail in the Administration and Management which is described in a separate section of the justification.* Travel, training and other general operating expenses account for 17.4 percent of the total S&E increase.

- \$1.25 million will provide for 1,200 full-time equivalent (FTE). These salary-related items account for the remaining 5.5 percent of the total increase in S&E funding. This increase is for comparability and locality pay and costs related to employee benefits.

Salaries and Expenses Funding
(Dollars in Millions)

| | FY 2002 Actual | FY 2003 Request | FY 2004 Request | Change | |
|-----------------------------------|-------------------|--------------------|--------------------|----------------|--------------|
| | | | | Amount | Percent |
| Personnel Compensation & Benefits | 121.28 | 132.43 | 133.68 | 1.25 | 0.9% |
| General Operating Expenses: | | | | | |
| Information Infrastructure | 16.39 | 25.19 | 42.73 | 17.54 | 69.6% |
| Travel, Training and Other | 32.26 | 45.33 | 49.29 | 3.96 | 8.7% |
| Total, S&E | \$169.93 | \$202.95 | \$225.70 | \$22.75 | 11.2% |

Totals may not add due to rounding.

The S&E appropriation includes funds for staff salaries, benefits, travel, training, rent, advisory and assistance services, communications and utilities expenses, supplies, equipment, and other operating expenses necessary for management of the agency's research and education activities. The FY 2004 S&E Budget Request provides support for the following activities:

- **Personnel Compensation and Benefits (PC&B):** Resources in this category provide funding for salaries and benefits of federal employees. The FY 2004 PC&B request is \$133.68 million, an increase of \$1.25 million over the FY 2003 Request of \$132.43 million. The FY 2003 Request includes funding for 17 FTE from programs proposed to transfer to NSF in FY 2003 that are not requested in FY 2004.
- **General Operating Expenses (GOE):** Resources in this category constitute the remainder of the S&E appropriation. GOE funds the entire range of operating expenses and travel that are necessary for the agency to administer its programs and safeguard its assets. GOE costs will increase from \$70.52 million in FY 2003 by \$21.50 million, or 30.5 percent, totaling \$92.02 million in FY 2004. Within the total increase are: \$17.54 million for Information Infrastructure, \$1.16 million for Space Rental, \$380,000 for Travel; and \$2.42 million for Training and Other General Operating Expenses.

Within the proposed GOE level, \$42.73 million will provide the resources to improve the agency's information systems technology – enhance the information infrastructure, promote eGovernment, enhance customer service, improve security of information and information technology assets, improve physical security with new smart technology, and provide for increasing IT contractor costs.

Personnel Compensation and Benefits

The PC&B increase is \$1.25 million in FY 2004. This relatively small increase is due to 17 fewer FTE in FY 2004 and to the pay raise assumptions used in FY 2003 and FY 2004. The FY 2004 Request for

PC&B includes a pay raise assumption of 2.0 percent, which is lower than the pay raise estimate included in the FY 2003 Request.

Personnel Compensation and Benefits Funding
(Dollars in Millions)

| | FY 2002 | FY 2003 | FY 2004 | Change | |
|------------------------|----------|----------|----------|--------|---------|
| | Actual | Request | Request | Amount | Percent |
| Personnel Compensation | 99.77 | 109.35 | 110.40 | 1.05 | 1.0% |
| Personnel Benefits | 21.51 | 23.08 | 23.28 | 0.20 | 0.9% |
| Total, PC&B | \$121.28 | \$132.43 | \$133.68 | \$1.25 | 0.9% |
| Full-time Equivalent | 1,188 | 1,217 | 1,200 | -17 | -1.4% |

Totals may not add due to rounding.

Workforce

The NSF FY 2004 total workforce is shown on the following table. The small reduction in the NSF staff from 1,217 in FY 2003 to 1,200 in FY 2004 is due to the employees associated with the programs that were proposed for transfer to NSF in the FY 2003 Request. The base NSF staffing level will remain constant between FY 2003 and FY 2004.

About 41 percent of the NSF workforce consists of scientists and engineers directly involved in the processing and management of awards; business operations support personnel account for about 36 percent of the workforce; and program support personnel account for most of the remaining 23 percent of the base NSF workforce. In the past ten years, the workforce composition has changed to a higher proportion of scientists and engineers and business operations personnel due to efficiencies gained through automation.

Workforce categories are show in the following tables. Intergovernmental Personnel Act (IPAs) are justified in the A&M section and the OIG workforce is justified in the OIG section of this document. They are included in the following tables to provide a complete view of the NSF workforce.

NSF Workforce Detail by FTE

| | FY 2002 | FY 2003 | FY 2004 | Change |
|--|---------|---------|---------|--------|
| | Actual | Request | Request | Amount |
| Staff -- NSF ¹ | 1,188 | 1,217 | 1,200 | -17 |
| Staff -- OIG | 51 | 53 | 60 | 7 |
| Arctic Research Commission | 4 | 4 | 4 | 0 |
| IPA | 129 | 140 | 170 | 30 |
| Detailees to NSF | 6 | 5 | 5 | 0 |
| Contractors Performing Admn. Functions | 175 | 210 | 210 | 0 |
| Total, Workforce FTE | 1,553 | 1,629 | 1,649 | 20 |

¹ The 17 FTE reduction in NSF staff in FY 2004 is due to employees from programs proposed for transfer to NSF from other agencies in the FY 2003 Request, which are not proposed for transfer in FY 2004.

FTE and IPA Distribution by NSF Organization for FY 2002

| | Federal Employees | Intergovernmental Personnel Act Appointments |
|---|----------------------|--|
| Biological Sciences | 100 | 17 |
| Office of Budget, Finance, & Award Management | 129 | 0 |
| Computer & Information Science & Engineering | 56 | 23 |
| Cooperative Education Program (Student Aides) | 30 | 0 |
| Education & Human Resources | 129 | 28 |
| Engineering | 110 | 20 |
| Geosciences | 92 | 13 |
| Mathematical & Physical Sciences | 110 | 18 |
| Office of Information & Resource Management | 165 | 0 |
| Office of the Director | 88 | 2 |
| Office of Polar Programs | 43 | 2 |
| Social, Behavioral and Economic Sciences | 136 | 6 |
| Subtotal, Actual FTE Usage | 1,188 | 129 |
| Office of Inspector General | 51 | 0 |
| Total, Actual FTE Usage | 1,239 | 129 |

Totals may not add due to rounding

General Operating Expenses

General Operating Expenses (GOE) fund a broad range of operations necessary for the Foundation to administer its programs. The FY 2004 Request for GOE is \$92.02 million, an increase of \$21.50 million from the FY 2003 level of \$70.52 million.

The Request funds Information Technology initiatives to enhance staff productivity, improve proposal and award processing, promote next generation eGovernment capabilities, and enhance physical and cyber security. The Request also provides for the management and maintenance of the operational components of NSF's administrative and programmatic applications, including FastLane.

Space rental will increase to \$18.65 million based on GSA's negotiated leasing cost for FY 2004. In addition, one floor of space in an adjoining building will be leased to relieve crowding in Stafford Place.

The increase in Travel funds will foster a more comprehensive approach to program oversight, monitoring and outreach – especially for large facility projects and other large NSF awards.

The increase in Training and Other General Operating Expenses will promote next-generation video-conferencing, renovate office space, and fund analyses of NSF business processes. Additionally, the funding will maintain the NSF Academy to facilitate employee development and training.

General Operating Expenses Funding
(Dollars in Millions)

| | FY 2002 | FY 2003 | FY 2004 | Change | |
|---|----------------|----------------|----------------|----------------|--------------|
| | Actual | Request | Request | Amount | Percent |
| Information Infrastructure | 16.39 | 25.19 | 42.73 | 17.54 | 69.6% |
| Space Rental | 16.31 | 17.49 | 18.65 | 1.16 | 6.6% |
| Travel | 4.59 | 5.73 | 6.11 | 0.38 | 6.6% |
| Training and Other General Operating Expenses | 11.36 | 22.11 | 24.53 | 2.42 | 10.9% |
| Total, GOE | \$48.65 | \$70.52 | \$92.02 | \$21.50 | 30.5% |

Totals may not add due to rounding.

Information Infrastructure

Information infrastructure costs are budgeted at \$42.73 million in FY 2004, increasing by \$17.54 million from the FY 2003 Request of \$25.19 million. This Request continues the Foundation's major investment in new technology to support improved business operations and to keep pace with an increasingly complex workload. Reengineering activities throughout NSF are focused on changing business practices to streamline operations and improve efficiency. This investment has produced significant results, including successful efforts to automate proposal and award processes and the development of improved financial systems.

The increase of \$17.54 million consists of the following:

- \$1.0 million for Enabling Human Capital Management. Accurate, timely human capital information is essential for effective planning and management of NSF's workforce. A fully integrated system will provide simple, easy to use, cost effective, standardized, and integrated eHuman resources and payroll services to support NSF's mission and to help plan for future needs. This solution will transform the current human resources and payroll service delivery environment into one that achieves management agenda initiatives and supports government-wide eGov initiatives in human capital. During FY 2004, NSF plans to complete requirements analysis, evaluate alternatives, including government-wide service providers/solution sets, and begin implementation of high-priority capabilities.
- \$4.40 million for the next-generation eGrants and support for other government-wide eGov initiatives. NSF is a partner of four eGovernment initiatives: eGrants (led by the Department of Health and Human Services), ePayroll, the Enterprise Human Resources Integration initiative (both led by the Office of Personnel Management), and eTravel (led by the General Services Administration) and continues to support all other endorsed initiatives to achieve government-wide efficiencies. As part of the government-wide eGrants initiative, NSF will continue to support implementation of a common solution set, and make changes to FastLane and other systems to assure seamless integration. Additional investments in FastLane and the Electronic Jacket systems will respond to high-priority customer requests and complement efforts planned for eGrants and eTravel. As part of our next-generation eGrants focus and resulting from the Business Analysis work planned for the Merit Review and Awards Management and Oversight processes, NSF will re-engineer its business process and define new system requirements. This will better enable the range of grant monitoring activities, improve the processing of large and complex awards and include a pre-award review functionality. The next-generation (internal) eGrants system (referred to as the Proposal, Review, and Awards Management Information

System or PRAMIS) will implement a redesigned business process aimed at transforming the current mix of electronic and paper-based sequential award processing to enable dynamic, simultaneous processing of NSF announcements, proposals, and awards. PRAMIS will also provide capability for electronic solicitation, proposal receipt, award and contract administration functions that interface with other government-wide eGov initiatives such as eGrants and eTravel as well as other internal information systems.

- \$3.0 million for enhancements and initiatives to improve operational efficiency. NSF has developed a multi-year approach to improving the infrastructure and deploying the hardware, software, and tools necessary to manage and operate applications that process approximately \$5.0 billion annually. Our multi-year approach to replace aging hardware, software, and enterprise servers, with priority on equipment three years old and older, allows for incremental improvements in the performance, reliability, and security of the operational infrastructure and is consistent with overall government-wide budget constraints. The Request includes funds to continue implementation of critical investments needed in supporting hardware, software, and tools necessary to manage and operate an infrastructure that can support NSF electronic business processes.
- \$1.64 million for continued improvements to NSF's Security Program. NSF's comprehensive, agency-wide IT security program encompasses all aspects of information security, including policy and procedures, risk assessments and security plans, managed intrusion detection services, vulnerability assessments, and technical and management security controls. The FY 2004 Request includes key investments needed to sustain and improve NSF's information security program and posture. This includes continued investments to implement a balanced, technology-enabled security program that includes physical and IT security requirements. Included in this investment is the continued deployment of "smart technology" to meet physical and cyber security needs, and expanded penetration testing and vulnerability scanning for defensive measures. This also includes establishing a common, "corporate directory service" that will store and manage user profiles, access privileges, and application and network resource information. This service will help ensure appropriate access policies are followed across NSF applications, facilities, and services.
- \$7.50 million for other information infrastructure costs. This includes operation of a central computing facility; maintenance of hardware and software; management of the NSF intranet and local area network; software development services to enhance and maintain current applications; and electronic mail. Adequate funding in these areas is critical to the efficient operation of the agency, as NSF has become increasingly dependent on a wide array of innovative technologies to handle an increasingly complex workload. As more and more business processes have been improved and automated, the Foundation's staff and its customers around the world depend on efficient and reliable electronic systems in order to conduct business, and a robust information technology infrastructure is critical to NSF's success. While NSF's overall budget has grown, funding for infrastructure operating expenses has until recently remained essentially flat. The Request includes increases to meet expenses for improvements in the basic infrastructure and day-to-day services such as:
 - Increased costs for new integrated contracts to improve the management and efficiency of the NSF data center, help desks, and network management;
 - Increased costs for corporate software licenses and maintenance fees which have increased dramatically over FY 2002;

- Implementation and support for tools initially deployed in FY 2002 to improve and manage software lifecycle activities, addressing software engineering standards, program management, quality assurance, testing, and configuration management;
- Increased costs to support redundancy and backup for critical services such as major systems production environments, electronic mail, and Internet access;
- Increased maintenance costs for FastLane, which is a suite of over 40 Web-based applications, used by more than 230,000 scientists, educators, and administrators;
- Increased maintenance costs for legacy information technology applications and the additional costs to maintain new capabilities for the National Science Board, the Office of Equal Opportunity, and other administrative functions;
- Increased costs to maintain a balanced security program for all central computing capabilities, including 24/7 intrusion detection services, internal and external penetration tests, disaster recovery tests, and additional operational security controls; and
- Increased costs to support an average of 8,000 customer services calls per month for FastLane and other IT services requests.

Space Rental

Budgeted at \$17.49 million in FY 2003, physical infrastructure costs increase by \$1.16 million in FY 2004 to a total of \$18.65 million. These costs include charges by GSA for the Foundation's headquarters location in Arlington, Virginia, and additional space in an adjacent building. The total includes funds for one additional floor of space in the adjacent building.

Travel

The Foundation's science and engineering education and research programs continue to emphasize more complex, interrelated sets of activities. These activities require NSF staff to interact and engage a broader and often new range of participants. These communities and constituencies often require assistance from and coordination with NSF staff in order to ensure compliance with the Foundation's administrative and programmatic requirements in proposing and carrying out their awards. This interaction and coordination takes many forms. It includes increasing pre-award outreach to inform new communities of the NSF role in supporting research and education; providing pre-proposal advice; completing complex pre-award negotiations; and participating in relevant society meetings, site visits, and workshops.

Budgeted at \$5.73 million in FY 2003, Travel increases by \$380,000 in FY 2004 to a level of \$6.11 million. This includes funding to continue to support the merit review process and for increased oversight activities, especially for new grantees and large facilities, and for enhanced outreach activities associated with FastLane. Good management is critical to the success of the research and education activities that we support, and proper and sufficient oversight is vital to the process. This requested amount also would assist in assuring both a reliable merit review process and the oversight recommended by the agency's Office of Inspector General.

Training and Other General Operating Expenses

Budgeted at \$22.11 million in FY 2003, training and other GOE increases by \$2.42 million to the FY 2004 level of \$24.53 million.

Funds in this category cover charges for telephone services and postage, employee learning and development activities, equipment repair and maintenance, mail handling, printing and reproduction, office supplies, and other administrative expenses. The increase will cover anticipated contractual

increases and other expenses for administrative equipment, the NSF Business Analysis, and the National Academy of Public Administration review.

The table below shows the planned distribution of general operating expenses by object class and is followed by brief detailed explanations of each category.

General Operating Expenses by Object Class
(Dollars in Thousands)

| | FY 2002 Actual | FY 2003 Request | FY 2004 Request | Change Amount |
|--|-------------------|--------------------|--------------------|------------------|
| Travel and Transportation of persons | 4,591 | 5,727 | 6,110 | 383 |
| Transportation of Things | 205 | 205 | 211 | 6 |
| Rental Payments to GSA | 16,305 | 17,491 | 18,652 | 1,161 |
| Communications, Utilities and Misc. Charges | 2,229 | 3,420 | 2,799 | -621 |
| Printing and Reproduction | 297 | 455 | 310 | -145 |
| Advisory and Assistance Services | 2,585 | 5,510 | 10,271 | 4,761 |
| Other Services | 3,500 | 6,634 | 8,380 | 1,746 |
| Purchases of Goods & Services from Gov't. Accounts | 1,040 | 1,200 | 1,566 | 366 |
| Medical Care | 467 | 467 | 499 | 32 |
| Operations and Maintenance of Equipment | 6,254 | 13,044 | 13,629 | 585 |
| Supplies and Materials | 2,143 | 2,794 | 2,510 | -284 |
| Equipment | 9,024 | 13,564 | 27,074 | 13,510 |
| Reception and Representation | 8 | 9 | 9 | 0 |
| Total | \$48,648 | \$70,520 | \$92,020 | \$21,500 |

Totals may not add due to rounding.

Description of categories:

- **Travel and Transportation of Persons** is discussed at the beginning of the GOE section.
- **Transportation of Things** consists of household moves associated with bringing new scientists and engineers to NSF.
- **Rental Payments to GSA** includes the rent charged by GSA for NSF's facility in Arlington, Virginia, and two floors in an adjacent building. The FY 2004 increase is required to fund GSA's estimate for currently occupied space, plus one additional floor in the adjacent building.
- **Communications, Utilities, and Miscellaneous Charges** include all costs for telephone lines and services, both local and long distance, postage, and rental charges for leased copiers. Operational efficiencies account for the proposed decrease; through the increased use of information technologies to conduct core business practices and a commensurate reduction in paper-based transactions, NSF reduced postage costs by 44 percent in 2002.
- **Printing and Reproduction** include contract costs of composition and printing of NSF's publications, announcements and forms; and printing of stationary and specialty items. The proposed decrease is made possible by the use of information technologies to conduct business and the

elimination of paper-based transactions, resulting in a drop in paper and supply costs of 26 percent in FY 2002.

- **Advisory and Assistance Services** include development, learning and career enhancement opportunities for all Foundation staff offered through the Academy, contracts for position classifications, security investigations, worklife initiatives, outreach and contractual costs for the Business Analysis and the National Academy of Public Administration review and related services. The FY 2004 increase is needed to fund the aforementioned two studies, and implement Human Capital recommendations stemming from the Business Analysis. The costs increase by \$4.76 million to \$10.27 million from a level of \$5.51 in the FY 2003 Request.
- **Other Services** include warehousing and supply services, mail handling, equipment repair and maintenance, renovation costs, furniture repair, contract support for conference room services, and miscellaneous administrative contracts. These costs increase by \$1.75 million in FY 2004 to fund renovation of office space, enhancements to physical and mailroom security, and the development of a robust intranet site.
- **Purchases of Goods and Services from Government Accounts** include reimbursable services purchased from GSA. These costs primarily include guard services and off-hours heating and air conditioning support. The increase of \$366,000 will be used to increase the level of security.
- **Medical Care** includes costs associated with the health services contract, providing limited on-site medical services to the agency's staff. This includes performing physical examinations for the NSF staff on assignment at the South Pole. The increase reflects the cost to continue the current medical contract.
- **Operations and Maintenance of Equipment** includes management and operation of the central computer facility 24 hours/day, 365 days/year; operation of the customer service center and FastLane help desk; maintenance of database server hardware and related peripherals; software licensing fees; data communications infrastructure and network systems support; electronic mail support; and remote access (e.g., Internet and World Wide Web). The increase of \$585,000 is needed for an increase in software licensing fees, and for enhancement of computer security.
- **Supplies and Materials** include office supplies, library supplies, paper and supplies for the NSF central computer facility, and miscellaneous supplies. Supply and paper costs were reduced 26 percent in FY 2002 due to the increased use of information technology to improve operations.
- **Equipment** costs include new and replacement computing equipment, desktop computers, data communications equipment, video-teleconferencing equipment, office furniture, file cabinets, and support equipment such as copiers and audio-visual equipment. Also included are software development costs associated with developing and maintaining central application systems that support proposal, award, financial, and administrative activities. These costs increase in FY 2004 by approximately \$13.51 million to support the following activities: investments for the next generation eGrants, support for government-wide eGrants, increased maintenance costs for FastLane, increased maintenance costs for legacy information technology applications, acquiring hardware and software to improve operational efficiency, costs for a robust enterprise architecture to support next generation capability, increased costs to maintain a balanced security program, increased costs for new integrated contracts, and increased costs to support a large increase in customer service calls for FastLane and other IT services requests.

- **Reception and Representation** expenses are funds that may be used for official consultation, representation, or other extraordinary expenses at the discretion of the NSF Director or his/her designee. These expenses do not increase over the FY 2003 Request.