

**OFFICE OF INTERNATIONAL SCIENCE  
AND ENGINEERING (OISE)**

**\$53,260,000  
+\$5,430,000 / 11.4%**

**OISE Funding**  
(Dollars in Millions)

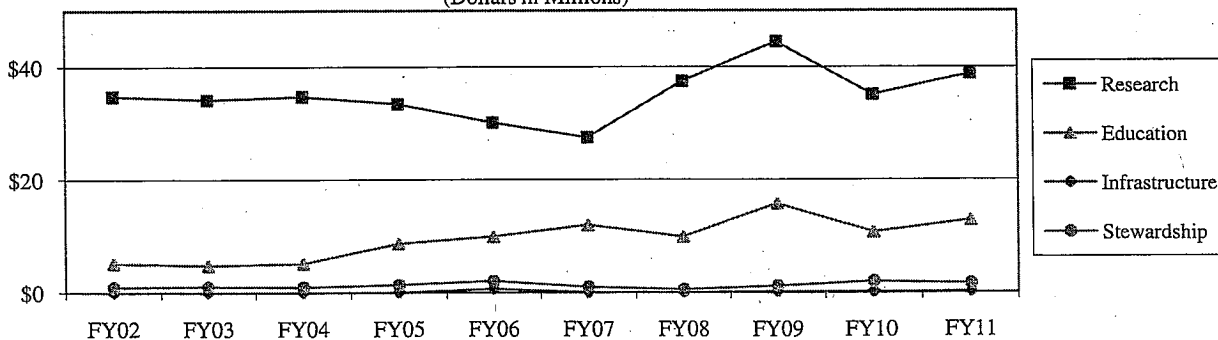
	FY 2009	FY 2009	FY 2010	FY 2011	Change Over	
	Omnibus	ARRA			FY 2010	FY 2010 Estimate
	Actual <sup>1</sup>	Actual	Estimate	Request	Amount	
<b>Total, OISE</b>	<b>\$47.45</b>	<b>\$13.98</b>	<b>\$47.83</b>	<b>\$53.26</b>	<b>\$5.43</b>	<b>11.4%</b>
Research	42.73	1.76	35.07	38.77	3.70	10.6%
Education	3.53	12.22	10.70	12.83	2.13	19.9%
Infrastructure	0.10	-	0.10	0.10	-	-
Stewardship	1.10	-	1.96	1.56	-0.40	-20.4%

Totals may not add due to rounding.

<sup>1</sup> FY 2009 Actual includes \$3.07 million in funds provided by the U.S. Department of State for an award to the U.S. Civilian Research and Development Foundation that was carried over from FY 2008 and obligated in FY 2009.

OISE serves as the focal point, both inside and outside of NSF, for international science and engineering activities. OISE promotes the development of an integrated, Foundation-wide international strategy and manages international programs that are innovative, catalytic, and responsive to a broad range of NSF and national interests. Recognizing that scientific discovery is a global enterprise, OISE supports U.S. scientists and engineers engaged in international research and education activities in all NSF supported disciplines involving any region of the world.

**OISE Funding**  
(Dollars in Millions)



**OISE in Context**

Science and engineering are international enterprises critical to addressing societal challenges, competitiveness, and security. Bold exploration at the frontiers of science and engineering increasingly requires international partnerships. NSF — as the Nation’s principal source of support to U.S. universities for fundamental science and engineering research and education — plays a unique role in leading the worldwide efforts of the U.S. science, engineering, and education communities.

OISE programs and activities are designed to complement and enhance the Foundation’s broad research and education portfolio and to overcome barriers involved in international collaboration. America’s next generation of scientists and engineers must be able to work effectively in the global arena and marketplace. OISE supports programs that enable students and researchers to experience and engage in international research and educational activities across such areas as cyberinfrastructure, complex biological systems, natural hazards prediction and mitigation, nanotechnology, water resources, climate

change, and energy sustainability. OISE carries out its functions by working closely with the other NSF directorates and offices as well as through its own programs. In addition, OISE manages NSF's offices in Beijing, Paris, and Tokyo that report on and analyze in-country and regional science and technology developments and policies, promote greater collaboration between U.S. and foreign researchers, liaise with foreign counterpart agencies and research institutes, and facilitate coordination and implementation of NSF research and education programs.

OISE will apply a portion of the FY 2011 increase towards two new areas of emphasis: Muslim-Majority Countries and Developing Countries. These are discussed separately below.

**Muslim-Majority Countries** - The President has called for U.S. engagement with the Muslim world on the basis of mutual respect and mutual benefit. In his June 4, 2009 speech in Cairo, the President called for the establishment of "centers of scientific excellence in Africa, the Middle East and Southeast Asia," and appointment of "science envoys to collaborate on programs that develop new sources of energy, create green jobs, digitize records, clean water, and grow new crops." OISE can play a critical role, in partnership with other agencies, to advance research and education engagements with Muslim-majority countries. OISE program mechanisms will include international supplements for current NSF center grantees, Partnerships for International Research and Education (PIRE), Advanced Studies Institutes (ASI), International Research Experiences for Students (IRES), International Research Fellowship Program (IRFP), planning visits, workshops, pilot projects, and co-funding with other NSF units. OISE will apply \$2.50 million of the FY 2011 increase towards activities that focus on Muslim-majority countries.

**Developing Countries** - Increasing collaboration with developing countries addresses several themes emphasized by the Obama Administration, especially with respect to expanded university-based research, information technology, climate change, science diplomacy, and capacity building. OISE's existing funding mechanisms, together with the potential for involving new funding partners, provides the vehicle for enabling more and stronger research and education collaborations with developing countries. The NSF-USAID Memorandum of Understanding provides a framework for OISE to support U.S. participants and USAID to support developing country partners in PIRE projects. Other OISE program mechanisms that will be used to catalyze new research and education collaborations with developing countries include ASI, IRES, IRFP, planning visits, workshops, pilot projects, and co-funding with other NSF units. OISE will apply approximately \$2.50 million of the FY 2011 increase towards activities that focus on developing countries.

OISE will continue to provide approximately \$8.0 million per year in support of U.S. participation in international organizations such as the Civilian Research and Development Foundation, the Global Science Forum, the Human Frontier Science Program, the International Institute of Applied Systems Analysis, the International Neuroinformatics Coordinating Facility, and the International Council for Science.

**OISE Funding for Facilities**

<b>OISE Funding for Facilities</b>						
(Dollars in Millions)						
	FY 2009	FY 2009	FY 2010	FY 2011	Change Over	
	Omnibus	ARRA			FY 2010 Estimate	FY 2011 Request
	Actual	Actual	Estimate	Request	Amount	Percent
<b>Facilities</b>	\$0.10	-	\$0.10	\$0.10	-	-
National Nanotechnology Infrastructure Network	0.10	-	0.10	0.10	-	-

OISE will continue to provide \$100,000 in support of the National Nanotechnology Infrastructure Network (NNIN). For further detail about individual Facilities, please see the Facilities chapter.

**OISE Administration Priority Programs and NSF Investments**

<b>OISE Administration Priority Programs and NSF Investments</b>						
(Dollars in Millions)						
	FY 2009	FY 2009	FY 2010	FY 2011	Change Over	
	Omnibus	ARRA			FY 2010 Estimate	FY 2011 Request
	Actual	Actual	Estimate	Request	Amount	Percent
Science, Engineering, and Education for Sustainability (SEES)	N/A	N/A	\$2.50	\$8.20	\$5.70	228.0%

In FY 2011, OISE will invest \$8.20 million in the NSF-wide Science, Engineering, and Education for Sustainability (SEES) portfolio to integrate efforts in climate and energy science and engineering.

For more information on Administration priority programs and NSF investments, please refer to the Overview and NSF-wide Investments sections.

**Factors Influencing the Allocation Across Major Programs**

- The OISE portfolio of programs and activities is designed to complement and enhance the Foundation's broad research and education portfolio and to strengthen international collaboration. In order to emphasize the development of a globally engaged U.S. science and engineering workforce, OISE will selectively utilize FY 2011 funding to augment support of two programs. The International Research Fellowship Program (IRFP) will increase from \$4.50 million to \$5.50 million, which will begin to improve the funding rate towards the goal of 30 percent from the current rate of 24 percent. Funding for the International Research Experience for Students (IRES) program will increase from \$3.15 million to \$4.25 million and will allow for funding IRES awards at a higher level than the current \$150,000 cap, which was set more than five years ago.
- Existing OISE programs will be used to catalyze new research and education collaborations with Muslim-majority nations and developing countries, including PIRE, IRFP, IRES, ASI, planning visits, workshops, pilot projects, and co-funding with other NSF units.

- When non-discretionary items, such as continuing grant increments and international organization dues, are removed from the budget, OISE's allotments for research and education activities are approximately equal. OISE believes the equal weighting of research and education is the proper proportion for effective international engagement and to help ensure that the U.S. STEM workforce can compete and operate successfully within the global arena.
- Longitudinal studies of the IRFP and the East Asia and Pacific Summer Institutes Program (EAPSI) have begun and will be completed in 2012. These longitudinal studies will provide valuable input to future programmatic decisions and investments.

### **Program Evaluation and Performance Improvement**

The Performance Information chapter provides details regarding the periodic reviews of programs and portfolios of programs by external Committees of Visitors and directorate Advisory Committees. Please see this chapter for additional information.

OISE has a contract with Abt Associates to evaluate the International Research Fellowship Program (IRFP) and the East Asia Pacific Summer Institutes (EAPSI) Program. These evaluations will focus on four tasks: 1) a study of the IRFP and EAPSI fellows' experiences in applying for and participating in the programs; 2) a comparative data analysis of professional outcomes (educational and occupational) for EAPSI and IRFP awardees and other applicants; 3) an analysis of the impact IRFP and EAPSI have on U.S. academic institutions and on the foreign institutions that host IRFP and EAPSI fellows; and 4) the bringing together of an advisory group to ensure the quality of the evaluation process.

**Number of People Involved in OISE Activities**

	FY 2009			
	FY 2009	ARRA	FY 2010	FY 2011
	Estimate	Estimate	Estimate	Estimate
Senior Researchers	1,153	67	1,250	1,385
Other Professionals	47	8	50	55
Postdoctorates	555	85	600	670
Graduate Students	2,088	221	2,260	2,510
Undergraduate Students	1,247	281	1,350	1,500
<b>Total Number of People</b>	<b>5,090</b>	<b>662</b>	<b>5,510</b>	<b>6,120</b>

**OISE Funding Profile**

	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
<b>Statistics for Competitive Awards:</b>			
Number of Proposals	782	820	820
Number of New Awards	429	365	410
Regular Appropriation	340	365	410
ARRA	89	-	-
Funding Rate	55%	45%	50%
<b>Statistics for Research Grants:</b>			
Number of Research Grant Proposals	354	375	375
Number of Research Grants	83	70	80
Regular Appropriation	47	70	80
ARRA	36	-	-
Funding Rate	23%	19%	21%
Median Annualized Award Size	\$24,826	\$50,000	\$25,000
Average Annualized Award Size <sup>1</sup>	\$32,618	\$180,000	\$50,000
Average Award Duration, in years	2.0	2.0	2.0

<sup>1</sup> The significant increase in the FY 2010 average annualized award size is due to the awards for the PIRE competition, which are larger than other OISE awards, being made in FY 2010.