

DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH  
(dollars in thousands)

	<u>FY 2012 Estimate</u>	
	<u>FTEs</u>	<u>Amount</u>
Interior – Superfund Activities Request		\$81,085

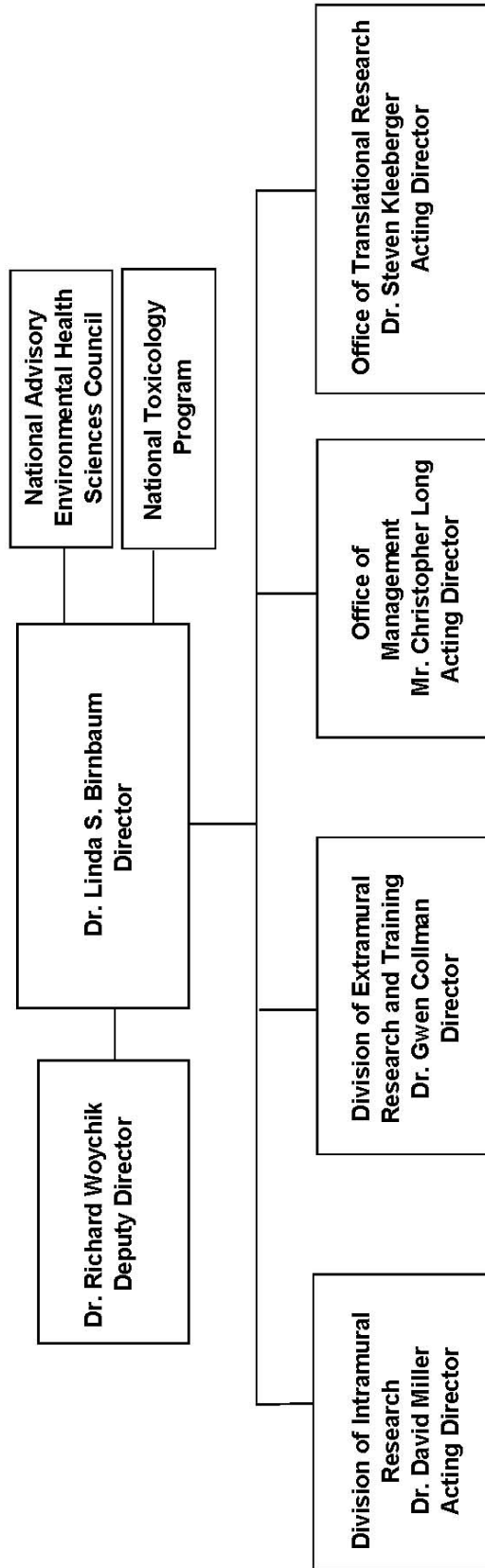
DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

National Institute of Environmental Health Sciences (NIEHS)  
Department of Interior and Related Agencies Appropriations  
Superfund-Related Activities

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NATIONAL INSTITUTES OF HEALTH  
National Institute of Environmental Health Sciences  
Organization Structure



**NATIONAL INSTITUTES OF HEALTH**

National Institute of Environmental Health Sciences  
Department of Interior and Related Agencies Appropriations  
Superfund-Related Activities

*For necessary expenses for the National Institute of Environmental Health Sciences in carrying out activities set forth in section 311(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, and section 126(g) of the Superfund Amendments and Reauthorization Act of 1986, \$81,085,000.*

**NATIONAL INSTITUTES OF HEALTH**  
**National Institute of Environmental Health Sciences Superfund**

**Amounts Available for Obligation <sup>1</sup>**  
(Dollars in Thousands)

<b>Source of Funding</b>	<b>FY 2010 Actual</b>	<b>FY 2011 CR</b>	<b>FY 2012 PB</b>
Appropriation	79,212	79,212	81,085
Rescission	0	0	0
Subtotal, adjusted appropriation	79,212	79,212	81,085
Subtotal, adjusted budget authority	79,212	79,212	81,085
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	0	0	0
Subtotal, adjusted budget authority	79,212	79,212	81,085
Unobligated balance lapsing	(11)	0	0
Total obligations	79,201	79,212	81,085

<sup>1</sup> Excludes the following amounts for reimbursable activities carried out by this account:  
FY 2010 - \$10,520    FY 2011 - \$10,520    FY 2012 - \$10,520

**NATIONAL INSTITUTES OF HEALTH**  
**National Institute of Environmental Health Sciences Superfund**  
**Budget Mechanism - Total <sup>1/</sup>**  
(Dollars in Thousands)

MECHANISM	FY 2010 Actual		FY 2011 CR		FY 2012 PB		Change vs. FY 2010	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Research Grants								
<u>Research Projects</u>								
Noncompeting	15	\$24,650	14	\$27,379	17	\$36,230	2	\$11,580
Administrative Supplements	<i>13</i>	<i>7,367</i>	9	7,537	7	1,500	(6)	(5,867)
Competing:								
Renewal	3	8,123	3	9,215	3	9,056	0	933
New	2	5,243	5	1,504	0	0	(2)	(5,243)
Supplements	0	0	0	0	0	0	0	0
Subtotal, Competing	5	\$13,366	8	\$10,719	3	\$9,056	(2)	(\$4,310)
Subtotal, RPGs	20	\$45,383	22	\$45,635	20	\$46,786	0	\$1,403
SBIR/STTR	9	\$2,120	9	\$2,108	9	\$2,108	0	(\$12)
Research Project Grants	29	\$47,503	31	\$47,743	29	\$48,894	0	\$1,391
<u>Research Centers</u>								
Specialized/Comprehensive	0	\$0	0	\$0	0	\$0	0	\$0
Clinical Research	0	0	0	0	0	0	0	0
Biotechnology	0	0	0	0	0	0	0	0
Comparative Medicine	0	0	0	0	0	0	0	0
Research Centers in Minority Institutions	0	0	0	0	0	0	0	0
Research Centers	0	\$0	0	\$0	0	\$0	0	\$0
<u>Other Research</u>								
Research Careers	0	\$0	0	\$0	0	\$0	0	\$0
Cancer Education	0	0	0	0	0	0	0	0
Cooperative Clinical Research	0	0	0	0	0	0	0	0
Biomedical Research Support	0	0	0	0	0	0	0	0
Minority Biomedical Research Support	0	0	0	0	0	0	0	0
Other	20	26,353	20	26,393	20	27,075	0	722
Other Research	20	\$26,353	20	\$26,393	20	\$27,075	0	\$722
Total Research Grants	49	\$73,856	51	\$74,136	49	\$75,969	0	\$2,113
<u>Research Training</u>								
Individual Awards	<u>FTIPs</u> 0	\$0	<u>FTIPs</u> 0	\$0	<u>FTIPs</u> 0	\$0	0	\$0
Institutional Awards	0	0	0	0	0	0	0	0
Total Research Training	0	\$0	0	\$0	0	\$0	0	\$0
Research & Development Contracts ( <i>SBIR/STTR</i> )	1 <i>0</i>	\$1,456 <i>\$0</i>	1 <i>0</i>	\$1,056 <i>\$0</i>	1 <i>0</i>	\$1,056 <i>\$0</i>	0 <i>0</i>	(\$400) <i>\$0</i>
<u>Intramural Research</u>	<u>FTEs</u> 0	\$0	<u>FTEs</u> 0	\$0	<u>FTEs</u> 0	\$0	<u>FTEs</u> 0	\$0
Research Management and Support	0	3,900	0	4,020	0	4,060	0	160
Construction		0		0		0		0
Buildings and Facilities		0		0		0		0
Total, NIEHS Superfund	0	\$79,212	0	\$79,212	0	\$81,085	0	\$1,873

1/ All items in italics are "non-adds"; items in parenthesis are subtractions  
FTEs are included in the regular NIEHS appropriation.

## **Major Changes in the Fiscal Year 2012 Budget Request**

Major changes by budget mechanism and/or budget program detail are briefly described below. Note that there may be overlap between budget mechanism and activity detail and these highlights will not sum to the total change for the FY 2012 budget request for NIEHS Superfund, which is \$1.873 million more than the FY 2010 level, for a total of \$81.085 million.

Research Project Grants (RPGs) (\$1.391 million; total \$48.894 million): NIEHS will support a total of 29 RPG awards in FY 2012. Noncompeting RPGs will increase by 2 awards and \$11.580 million from the FY 2010 level. Competing RPGs will decrease by 2 awards and \$4.310 million.

Research and Development Contracts (-\$0.400 million; total \$1.056 million): Superfund Research Program training carried out via an Interagency Agreement with the National Institute for Occupational Safety and Health (NIOSH) will be limited to the most relevant training. Cost effective methods such as distance learning and on-line course offerings are also being explored.

**NATIONAL INSTITUTES OF HEALTH**  
**National Institute of Environmental Health Sciences Superfund**  
**Summary of Changes**  
(Dollars in Thousands)

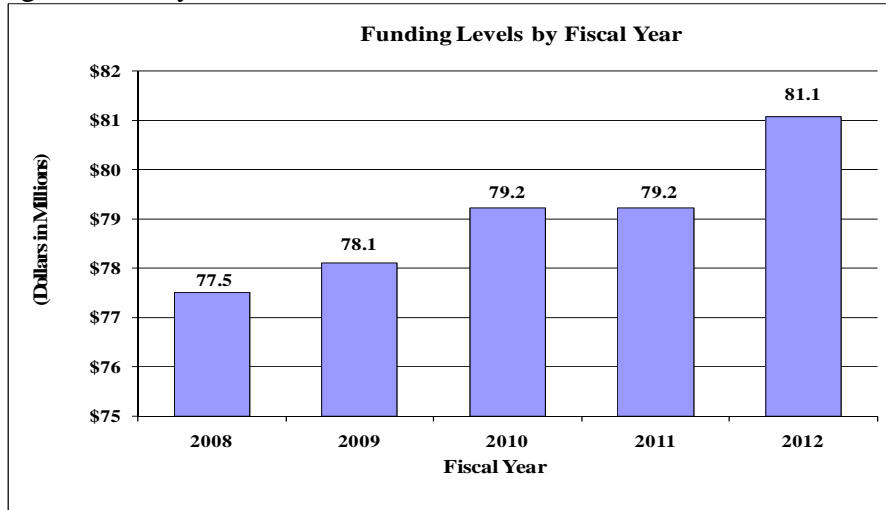
<b>FY 2010 Actual</b>				<b>\$79,212</b>
<b>FY 2012 Estimate</b>				<b>81,085</b>
<b>Net change</b>				<b>\$1,873</b>
CHANGES	2012 Estimate		Change from FY 2010	
	No.	Budget Authority	No.	Budget Authority
A. Built-in:				
1. Research Management and Support:				
a. Annualization of January 2010 pay increase		\$1,478		\$9
b. January FY 2012 pay increase		1,478		0
c. One less day of pay (n/a for 2011)		1,478		(6)
d. Payment for centrally furnished services		35		0
e. Increased cost of laboratory supplies, materials, and other expenses		2,547		25
Subtotal				\$28
Subtotal, Built-in				\$28
B. Program				
1. Research Project Grants:				
a. Noncompeting	17	\$37,730	2	\$5,713
b. Competing	3	9,056	(2)	(4,310)
c. SBIR/STTR	9	2,108	0	(12)
Total	29	\$48,894	0	\$1,391
2. Other Research	20	27,075	0	722
3. Research and development contracts	1	1,056	0	(400)
Subtotal, Extramural		\$77,025		\$1,713
4. Research Management and Support	<u>FTEs</u> 0	4,060	<u>FTEs</u> 0	132
Subtotal, program	0	\$81,085	0	\$1,845
Total changes		\$81,085		\$1,873

FTEs are included in the regular NIEHS appropriation.

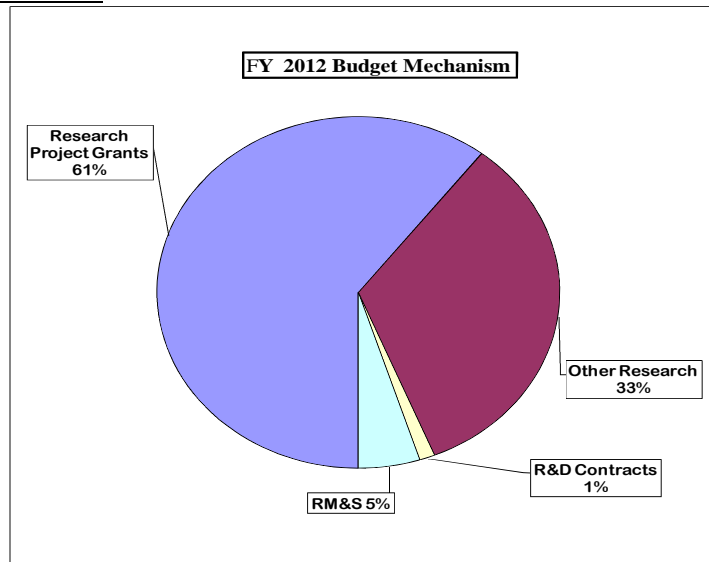


## FY2012 Budget Graphs

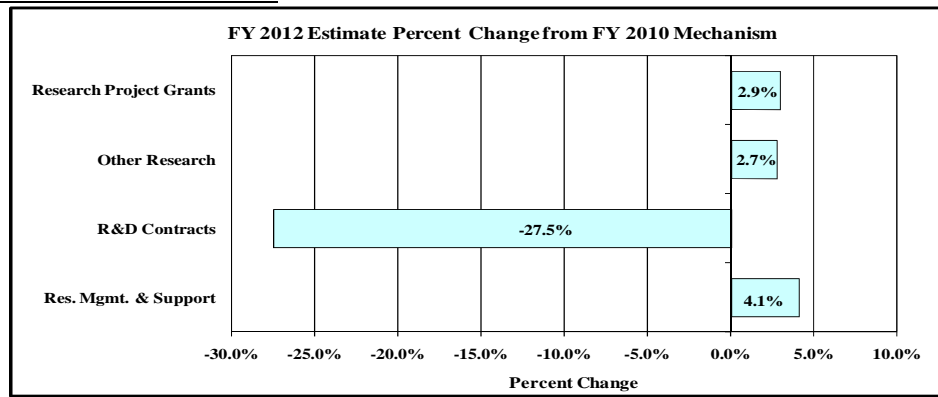
### History of Budget Authority:



### Distribution by Mechanism:



### Change by Selected Mechanism:



**NATIONAL INSTITUTES OF HEALTH**  
**National Institute of Environmental Health Sciences Superfund**  
**Budget Authority by Activity**  
(Dollars in thousands)

	<b>FY 2010 Actual</b>	<b>FY 2011 CR</b>	<b>FY 2012 PB</b>	<b>Change vs. FY 2010</b>
	<u>Amount</u>	<u>Amount</u>	<u>Amount</u>	<u>Amount</u>
<u>Detail:</u>				
<b>Superfund Research</b>	\$50,352	\$50,352	\$51,543	\$1,191
<b>Worker Training</b>	28,860	28,860	29,542	682
<b>TOTAL</b>	\$79,212	\$79,212	\$81,085	\$1,873

FTEs are included in the regular NIEHS appropriation.

**NATIONAL INSTITUTES OF HEALTH  
National Institute of Environmental Health Sciences Superfund**

**Authorizing Legislation**

	<b>PHS Act/ Other Citation</b>	<b>U.S. Code Citation</b>	<b>2011 Amount Authorized</b>	<b>FY 2010 Estimate</b>	<b>2012 Amount Authorized</b>	<b>FY 2012 PB</b>
Environmental Protection Agency's Hazardous Substance Superfund	CERCLA Section 311(a)	42§9660 Section 9660(a)	Indefinite	\$50,352,000	Indefinite	\$51,543,000
	SARA Section 126(a)	42§9660 Section 9660(a)	Indefinite	\$28,860,000	Indefinite	\$29,542,000
<b>Total, Budget Authority</b>						<b>\$81,085,000</b>

**NATIONAL INSTITUTES OF HEALTH**  
**National Institute of Environmental Health Sciences Superfund**

**Appropriations History**

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
2003	\$74,471,000	\$84,074,000	\$76,074,000	\$83,528,000
2004	\$78,744,000	\$80,000,000	\$78,774,000	\$78,774,000
Rescission				(\$465,000)
2005	\$80,486,000	\$80,486,000	\$80,486,000	\$80,486,000
Rescission				(\$644,000)
2006	\$80,289,000	\$80,289,000	\$80,289,000	\$80,289,000
Rescission				(\$1,181,000)
2007	\$79,108,000	\$79,414,000	\$78,414,000	\$79,117,000
2008	\$78,434,000	\$79,117,000	\$78,434,000	\$78,775,000
Rescission				(\$1,229,000)
2009	\$77,546,000	\$78,074,000	\$77,546,000	\$78,074,000
2010	\$79,212,000	\$79,212,000	\$79,212,000	\$79,212,000
2011	\$81,763,000			
Rescission				
2012	\$81,085,000			

## Justification of Budget Request

### *Superfund*

Authorizing Legislation: Section 311(a) of the Comprehensive Environmental, Response, Compensation, and Liability Act of 1980, as amended, and Section 126(g) of the Superfund Amendments and Reauthorization Act of 1986.

Budget Authority (BA):

FY 2010 Appropriation	Annualized FY 2011 CR	FY 2012 Budget Request	FY 2012 + / - FY 2011
\$79,212,000	\$79,212,000	\$81,085,000	+1,873,000

FTEs are included with the regular NIEHS appropriation.

### **Director's Overview**

The goal of NIEHS' Superfund Program, which is tightly integrated with those of the Environmental Protection Agency (EPA) and the Agency for Toxic Substances and Disease Registry (ATSDR), is to improve human health by addressing and preventing diseases and injuries associated with environmental contaminants. The Superfund Research Program (SRP) and the Worker Training Program (WTP) exemplify the link between public health and economic health. For example, scientifically rigorous public health research and intervention play a key role in the redevelopment of environmentally contaminated urban and rural property. SRP provides the scientific research used by WTP and other Federal and state agencies to train hazardous waste workers, to accelerate remediation efforts, and to prevent health consequences related to toxicant exposure. These programs have provided the safety tools and training to transform contaminated sites (such as Superfund and Brownfield sites) into new opportunities for residential, industrial and commercial ventures – which means new jobs for the surrounding community and new sources of revenue for state and local governments.

SRP and WTP complement each other in realizing the economic benefits of focused, strong science. SRP's remediation technology research leads to the development of clean-up technology that surpasses the more expensive "dig and haul" or "pump and treat" approaches of the last century. The Southern California Edison Superfund site in Visalia, California was removed from the National Priorities List thanks to remediation technology developed with SRP funding. The Steam Enhanced Extraction (SEE) technique uses steam to remove chlorinated organic contaminants. SEE achieved cleanup standards faster than existing "pump and treat" technologies and saved nearly \$80 million. The result: the drinking water supply for Visalia's 62,000 citizens is now protected. In addition, SRP scientists have developed other cost-saving remediation alternatives. For example, SRP funds research on a photocatalysis device that remediates dioxin and volatile organic compounds 40 times more cost effectively than existing techniques.

SRP and WTP programs maximize partnerships between grantees and other federal agencies as an efficient and effective means to utilize resources to prevent harmful environmental exposures. This past year, WTP partnered with the Occupational Safety and Health Administration (OSHA) to hold the first national Hispanic safety and health conference aimed at reducing the epidemic of deaths and injuries among Spanish-speaking workers. Similarly, WTP joined EPA in holding a national conference on environmental justice, with a strong focus on hazardous waste cleanup job training. On the Gulf Coast, WTP staff and awardees provided oil spill response training, curricula, and training resources as part of a coordinated effort with the United States Coast Guard, EPA, the National Institute of Occupational Safety and Health, and OSHA.

SRP, in its 2010 Strategic Plan, emphasized the key role of stakeholder involvement for attaining relevant science. Building on basic research that identified a human gene variant related to Parkinson's Disease, an SRP grantee has partnered with the Centers for Disease Control and Prevention (CDC) in a community-based activity to assess the efficacy of this new biomarker in identifying disease risk among individuals exposed to pesticides.<sup>i</sup> Having successfully partnered with EPA to test a new monitoring device in the Portland Harbor Superfund Megasite, an Oregon State University researcher teamed with numerous State and Federal Agencies along the Gulf Coast to deploy her passive sampling device to monitor movement of the Gulf Oil Spill.<sup>ii</sup> An SRP small business innovative research grantee developed partnerships with EPA at the Summitville Superfund Site (Rio Grande County, Colorado) to pilot-test an innovative process that uses an electrical current to remove metal from mine waste and then convert it into useful copper ore.<sup>iii</sup>

Through its high quality, science-based safety and health training, WTP has provided a model for the prevention of workplace injuries, deaths, and illness in all fifty states, Puerto Rico, and the Pacific Territories. The WTP program ensures that this model is continuously updated based on on-going evaluation of the impact of its courses and its programs and incorporation of lessons-learned. The model is also helping to lay a foundation for a national safety culture during disasters, for example, through a series of feedback sessions for workers involved in cleaning up the Gulf oil spill. Focused on their actual work experiences and their relation to the training, this lessons-learned activity will have an impact throughout the federal response community. Finally, this program continues to be forward-looking. Environmental cleanup and response is an evolving field - training needs and audiences continually change, requiring flexibility and innovation. In September, WTP funded the University of Texas at Houston to provide an innovative program for training injured military veterans for appropriate employment in the field of environmental remediation. This is truly meeting the needs of our returning heroes.

SRP continues to make headway in understanding the linkages between environmental exposures and our health – information that can drive both exposure prevention and therapeutic approaches to disease prevention. For example, building on SRP-funded basic research on pesticides, University of California – Davis researchers are working to develop a therapeutic agent to prevent heart attacks that are associated with environmental contamination. In pre-clinical studies with a mouse model, the drug showed promising results.<sup>iv</sup> Another SRP study revealed the linkage between lung cancer and low to moderate levels of arsenic in drinking water among a

New England population.<sup>v</sup> These findings have the direct potential to benefit our health through therapeutics and are also critical to agencies responsible for setting exposure level standards.

These are but a few highlights of NIEHS' vital Superfund activities aimed at preventing exposures and protecting the health of our nation's citizens.

Overall Budget Policy: The FY 2012 request for NIEHS Superfund is \$81.085 million, an increase of \$1.873 million, or 2.4 percent over the FY 2010 level.

### **Program Descriptions and Accomplishments**

**Superfund Research Program (SRP):** SRP's goal is to gain a better understanding of how toxicants affect human health in order to help environmental managers and risk assessors protect the public from exposures to hazardous substances. SRP works to accomplish its goal through research conducted at universities across the country, including research to develop cost effective approaches to detect, remove, and/or reduce the amount of toxic substances found in the environment. In a recent cross-sectional study supported by SRP, researchers at the Boston University School of Public Health reported a link between blood serum levels of polyfluoroalkyl chemicals (PFCs) and attention deficit hyperactivity disorder (ADHD) in children. Given the prevalence of exposure to PFCs among children in the U.S. and the slow rate at which this compound is eliminated from the body, these results highlight the importance of further research in this area.<sup>vi</sup>

Budget Policy: The FY 2012 budget estimate for SRP is \$51.543 million, an increase of \$1.191 million, or 2.4 percent over the FY 2010 level. Resources will be used to support high priority and scientifically rigorous single and multi-project research grants, covering the diverse areas of science needed to solve complex health and environmental issues associated with the nation's hazardous waste sites. Support of SBIR grants for the development of innovative technologies for monitoring and remediation of hazardous substances in the environment will continue in FY 2012.

#### **Program Portrait: Endocrine Disrupting Chemicals – Reducing Risk through SRP Research**

FY 2010 Level: \$10.8 million

FY 2012 Level: \$10.8 million

SRP has advanced our understanding of health effects, disease risk, and remediation techniques for endocrine disrupting compounds (EDCs). SRP-funded research led to the weighted potency or "Toxic Equivalency" (TEQ) approach, the first accepted method for quantifying the overall risk of mixtures of dioxin-like compounds.<sup>vii</sup> SRP has investigated numerous health effects directly or indirectly attributed to EDCs, including reproductive problems, brain and behavior problems, impaired immune functions, and various cancers. Dartmouth University researchers were the first to show arsenic interferes with hormone signaling pathways, offering an explanation for arsenic's exposure leading to various cancers, diseases, and developmental problems.<sup>viii</sup> University of Kentucky researchers discovered that PCBs are linked to obesity and cause vascular changes leading to atherosclerosis, findings that may explain cardiovascular disease incidence.<sup>ix</sup> Brown University studies report PCBs potentiate pre-term births in mice by suppressing placental blood vessel growth resulting in a number of issues including preterm delivery and reduced cognitive function in offspring.<sup>x</sup> SRP aims to prevent EDC exposures by developing strategies to clean sites contaminated with PCBs, dioxins, and other EDCs. For

example, researchers are using electric currents to stimulate PCB bioremediation in contaminated sediments from Wisconsin's Fox River (Neenah, WI).<sup>xi</sup> Other researchers have developed specialized non-toxic pellets capable of cleaning PBDEs, PAHs, and PCB-impacted sediments in sensitive wetland areas.<sup>xii xiii</sup> In addition, SRP has funded cost-effective technologies, such as the dioxin-detector known as "CALUX," which reduces the cost of site assessment up to 40%.<sup>xiv</sup> SRP's plant-based remediation approaches have brought a cheaper and "greener" alternative to EDC cleanups. New SRP research is under way to understand the implications of EDC exposure and identify possible solutions. Investments in EDC research by SRP will continue to improve our understanding of this complex issue, and the multi-disciplinary approach promises effective solutions to these problems.

**Worker Training Program (WTP):** WTP is an assistance program for training workers engaged in activities related to hazardous waste removal, containment, and emergency response. Grant recipients are non-profit organizations with demonstrated access to appropriate worker populations and experience in implementing and operating worker health and safety education training programs. Through competitively awarded cooperative agreements, WTP has supported the development of training programs throughout the country to help employers meet OSHA requirements under 29 CFR 1910.120, Hazardous Waste Operations & Emergency Response. This model program also encourages innovation for training difficult-to-reach populations by addressing issues such as literacy, appropriate adult education techniques, training quality improvement, and other areas not currently addressed by the private sector. The program enhances and complements private sector training responsibility by demonstrating new and cost-effective training techniques and materials.

The sharing of resources continues to be central to the success of the WTP mission. Among WTP awardees the sharing of curricula, subject matter experts, and best practices avoids duplication of effort and expense. Within NIEHS, WTP has shared its resources in developing metrics for the new Partnerships for Environmental Public Health and in providing community and labor contacts for the NIH Gulf Oil Study.

During the past training year (August 1, 2009 – July 31, 2010), WTP awardees trained a significantly higher number of workers, an increase to 172,000 from 149,000, which represents over 1.5 million contact hours of training. The funding to support the increase in training is attributable to ARRA supplemental funding. The fact that so many more workers sought training may be due in part to the economic downturn that resulted in widespread layoffs and business closings which forced many workers to seek new skills and training.

The WTP Minority Worker Training Program focuses on the needs of communities with low-income neighborhoods where past industrial practices have left a legacy of environmental contamination, often called "Brownfields Communities." The program trains local at-risk students for well-paying careers as environmental technicians; 65% of the 531 students trained in these communities during the past year are now employed. This model training intervention combines environmental cleanup training with construction skill training and life skills mentoring. The placement rate is one of the highest achieved among comparable programs. **Budget Policy:** The FY 2012 budget estimate for WTP is \$29.542 million, an increase of \$682 thousand, or 2.4 percent over the FY 2010 level. During FY 2012, WTP will continue to support occupational safety and health training for workers who are or may be engaged in activities related to hazardous waste removal, containment or chemical emergency response. WTP will



also fund comprehensive training to disadvantaged urban youth in order to prepare them for employment in the construction and environmental cleanup fields. WTP plans to continue its support of small businesses through its innovative SBIR e-learning for worker safety and health training program. WTP will also continue to pursue pre-deployment strategies and development of training materials on a number of issues of key national response concern.

#### **Program Portrait: A Network Responds**

FY 2010 Level: \$0.1 million  
FY 2012 Level: \$0.0 million

On the evening of April 20, 2010, 11 workers died in a tragic explosion on the Deepwater Horizon oil drilling rig in the Gulf of Mexico. Within days, it was clear that thousands of barrels of oil were spewing from the damaged wellhead one mile below the surface. Immediately the NIEHS Worker Training Program (WTP) went to work. Through the use of its Emergency Support Activation Plan, WTP and its awardees began mobilizing their experienced national network of worker safety and health experts, trainers, and support staff to assist in the recovery of the Gulf coast. The WTP network gained much of its experience in day-to-day work remediating hazardous waste sites and from previous responses to Hurricane Katrina, and the World Trade Center, Oklahoma City, and anthrax terrorist attacks. Through the evaluation of the lessons learned in those disasters, the WTP network developed mechanisms for getting needed safety and health resources into the field: teams of trainers and subject matter experts, printed training materials, on-line electronic learning tools, personal protective equipment and other training supplies, tailored training for reaching underserved minority workers, and even useful 'extras' such as safety awareness "podcasts," audio training tips available through easy download to trainers in the field. Over time, a consensus developed that such training does not impede rapid response and recovery, but rather saves lives, prevents injuries, and enhances the overall response. This past summer saw a remarkable first, as an attempt was made to provide safety training to every single worker involved in the response to the Gulf Oil spill. WTP is proud to have assisted in this effort and will continue to build upon the new lessons from this oil spill.

The recent successful re-competition of the WTP program has expanded significantly the expertise and training capacity within the WTP awardee community in all its program areas, including hazmat disaster, hazardous waste, and minority worker training.

<sup>ii</sup> [http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief\\_ID=190](http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=190)

<sup>ii</sup> [http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief\\_ID=184](http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=184)

<sup>iii</sup> [http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief\\_ID=186](http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=186)

<sup>iv</sup> <http://www.ncbi.nlm.nih.gov/pubmed/19716829?dopt=Abstract>

<sup>v</sup> <http://www.ncbi.nlm.nih.gov/pubmed/20049123?dopt=Abstract>

<sup>vi</sup> <http://ehp03.niehs.nih.gov/article/info%3Adoi%2F10.1289%2Fehp.1001898>

<sup>vii</sup> [http://devtools.niehs.nih.gov/srp/programs/Program\\_detail.cfm?Project\\_ID=P42ES49170002&FY=1999](http://devtools.niehs.nih.gov/srp/programs/Program_detail.cfm?Project_ID=P42ES49170002&FY=1999)

<sup>viii</sup> [http://tools.niehs.nih.gov/srp/programs/Program\\_detail.cfm?Project\\_ID=P42ES73730002&FY=2010](http://tools.niehs.nih.gov/srp/programs/Program_detail.cfm?Project_ID=P42ES73730002&FY=2010)

[http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief\\_ID=145&searchTerm=arsenic and Dartmouth](http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=145&searchTerm=arsenic and Dartmouth)

<sup>ix</sup> [http://tools.niehs.nih.gov/srp/programs/Program\\_detail.cfm?Project\\_ID=P42ES73800101&FY=2010](http://tools.niehs.nih.gov/srp/programs/Program_detail.cfm?Project_ID=P42ES73800101&FY=2010)

[http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief\\_ID=161](http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=161)

<sup>x</sup> [http://tools.niehs.nih.gov/srp/programs/Program\\_detail.cfm?Project\\_ID=P42ES136600003&FY=2010](http://tools.niehs.nih.gov/srp/programs/Program_detail.cfm?Project_ID=P42ES136600003&FY=2010)

[http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief\\_ID=174](http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=174)

<sup>xi</sup> [http://devtools.niehs.nih.gov/srp/programs/Program\\_detail.cfm?Project\\_ID=R01ES16197](http://devtools.niehs.nih.gov/srp/programs/Program_detail.cfm?Project_ID=R01ES16197)

<sup>xii</sup> [http://tools.niehs.nih.gov/srp/programs/view.cfm?Project\\_ID=R01ES16143](http://tools.niehs.nih.gov/srp/programs/view.cfm?Project_ID=R01ES16143)

<sup>xiii</sup> [http://tools.niehs.nih.gov/srp/programs/Program\\_detail.cfm?Project\\_ID=R01ES16182](http://tools.niehs.nih.gov/srp/programs/Program_detail.cfm?Project_ID=R01ES16182)

<sup>xiv</sup> [http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief\\_ID=150&searchTerm=calux](http://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=150&searchTerm=calux)

**NATIONAL INSTITUTES OF HEALTH**  
**National Institute of Environmental Health Sciences Superfund**

**Budget Authority by Object**  
(Dollars in Thousands)

OBJECT CLASSES	FY 2010 Actual	FY 2012 Estimate	Increase or Decrease
Personnel Compensation:			
11.1 Full-time permanent	\$985	\$987	\$2
11.3 Other than full-time permanent	152	152	0
11.5 Other personnel compensation	37	37	0
11.7 Military personnel	0	0	0
11.8 Special personnel services payments	0	0	0
<b>Total, Personnel Compensation</b>	<b>\$1,174</b>	<b>\$1,176</b>	<b>\$2</b>
12.0 Personnel benefits	\$300	\$301	\$1
12.2 Military personnel benefits	0	0	0
13.0 Benefits for former personnel	0	0	0
<b>Subtotal, Pay Costs</b>	<b>\$1,474</b>	<b>\$1,477</b>	<b>\$3</b>
21.0 Travel and transportation of persons	\$167	\$174	\$7
22.0 Transportation of things	0	0	0
23.1 Rental payments to GSA	0	0	0
23.2 Rental payments to others	0	0	0
23.3 Communications, utilities and miscellaneous charges	0	0	0
24.0 Printing and reproduction	0	0	0
25.1 Consulting services	47	49	2
25.2 Other services	265	334	69
25.3 Purchase of goods and services from government accounts	3,383	3,061	(322)
25.4 Operation and maintenance of facilities	0	0	0
25.5 Research and development contracts	0	0	0
25.6 Medical care	0	0	0
25.7 Operation and maintenance of equipment	0	0	0
25.8 Subsistence and support of persons	0	0	0
<b>25.0 Subtotal, Other Contractual Services</b>	<b>\$3,695</b>	<b>\$3,444</b>	<b>(\$251)</b>
26.0 Supplies and materials	\$11	\$12	\$1
31.0 Equipment	9	9	0
32.0 Land and structures	0	0	0
33.0 Investments and loans	0	0	0
41.0 Grants, subsidies and contributions	73,856	75,969	2,113
42.0 Insurance claims and indemnities	0	0	0
43.0 Interest and dividends	0	0	0
44.0 Refunds	0	0	0
<b>Subtotal, Non-Pay Costs</b>	<b>\$77,738</b>	<b>\$79,608</b>	<b>\$1,870</b>
<b>Total Budget Authority by Object</b>	<b>\$79,212</b>	<b>\$81,085</b>	<b>\$1,873</b>

FTEs are included in the regular NIEHS appropriation.

**NATIONAL INSTITUTES OF HEALTH**  
**National Institute of Environmental Health Sciences Superfund**

**Salaries and Expenses**  
(Dollars in Thousands)

OBJECT CLASSES	FY 2010 Actual	FY 2012 PB	Increase or Decrease
<b>Personnel Compensation:</b>			
Full-time permanent (11.1)	\$985	\$987	\$2
Other than full-time permanent (11.3)	152	152	0
Other personnel compensation (11.5)	37	37	0
Military personnel (11.7)	0	0	0
Special personnel services payments (11.8)	0	0	0
<b>Total Personnel Compensation (11.9)</b>	<b>\$1,174</b>	<b>\$1,176</b>	<b>\$2</b>
Civilian personnel benefits (12.1)	\$300	\$301	\$1
Military personnel benefits (12.2)	0	0	0
Benefits to former personnel (13.0)	0	0	0
<b>Subtotal, Pay Costs</b>	<b>\$1,474</b>	<b>\$1,477</b>	<b>\$3</b>
Travel (21.0)	\$167	\$174	\$7
Transportation of things (22.0)	0	0	0
Rental payments to others (23.2)	0	0	0
Communications, utilities and miscellaneous charges (23.3)	0	0	0
Printing and reproduction (24.0)	0	0	0
<b>Other Contractual Services:</b>			
Advisory and assistance services (25.1)	47	49	2
Other services (25.2)	265	334	69
Purchases from government accounts (25.3)	1,927	2,005	78
Operation and maintenance of facilities (25.4)	0	0	0
Operation and maintenance of equipment (25.7)	0	0	0
Subsistence and support of persons (25.8)	0	0	0
<b>Subtotal Other Contractual Services</b>	<b>\$2,239</b>	<b>\$2,388</b>	<b>\$149</b>
Supplies and materials (26.0)	\$11	\$12	\$1
<b>Subtotal, Non-Pay Costs</b>	<b>\$2,417</b>	<b>\$2,574</b>	<b>\$157</b>
<b>Total, Administrative Costs</b>	<b>\$3,891</b>	<b>\$4,051</b>	<b>\$160</b>

NATIONAL INSTITUTES OF HEALTH

Summary Table by IC

FY 2012 Estimate

(dollars in thousands)

Institute/ Center	FY 2010 Actual	FY 2011 CR	FY 2012 Estimate	2012 PB. +/- 2010 Actual
NCI <sup>1</sup>	\$5,100,826 <sup>2</sup>	\$5,099,047	\$5,196,136	\$95,310
NHLBI	3,095,271	3,094,282	3,147,992	52,721
NIDCR	413,009	412,885	420,369	7,360
NIDDK <sup>2</sup>	1,957,071	1,956,562	1,987,957	30,886
NINDS	1,635,448	1,634,979	1,664,253	28,805
NIAID <sup>3</sup>	4,816,055	4,510,177	4,915,970	99,915
NIGMS	2,050,581	2,050,053	2,102,300	51,719
NICHD	1,328,804	1,328,397	1,352,189	23,385
NEI	706,642	706,435	719,059	12,417
NIEHS	689,446	689,194	700,537	11,091
NIA	1,109,636	1,109,285	1,129,987	20,351
NIAMS	538,759	538,623	547,891	9,132
NIDCD	418,585	418,477	426,043	7,458
NIMH	1,489,540	1,489,105	1,517,006	27,466
NIDA	1,059,266	1,058,947	1,080,018	20,752
NIAAA	462,086	461,953	469,197	7,111
NINR	145,575	145,536	148,114	2,539
NHGRI	515,799	515,589	524,807	9,008
NIBIB	316,398	316,313	322,106	5,708
NCRR	1,268,323	1,267,817	1,297,900	29,577
NCCAM	128,767	128,734	131,002	2,235
NIMHD	211,469	211,392	214,608	3,139
FIC	69,993	69,991	71,328	1,335
NLM	351,023	365,716	387,153	36,130
OD	1,176,844	1,176,299	1,298,412	121,568
B&F	99,985	100,000	125,581	25,596
Type 1 Diabetes <sup>2</sup>	(150,000)	(150,000)	(150,000)	0
<b>Subtotal, Labor/HHS</b>	<b>\$31,005,201</b>	<b>\$30,705,788</b>	<b>\$31,747,915</b>	<b>\$742,714</b>
Interior/Superfund Research Program	\$79,212	\$79,212	\$81,085	\$1,873
<b>Total, NIH Discretionary B.A.</b>	<b>\$31,084,413</b>	<b>\$30,785,000</b>	<b>\$31,829,000</b>	<b>\$744,587</b>
Type 1 Diabetes	\$150,000	\$150,000	\$150,000	\$0
<b>Total, NIH Budget Authority</b>	<b>\$31,234,413</b>	<b>\$30,935,000</b>	<b>\$31,979,000</b>	<b>\$744,587</b>
NLM Program Evaluation	\$8,200	\$8,200	\$8,200	\$0
<b>Total, Prog. Level</b>	<b>\$31,242,613</b>	<b>\$30,943,200</b>	<b>\$31,987,200</b>	<b>\$744,587</b>

<sup>1</sup> Includes \$7,920,000 in each year for facilities repairs and improvements at the NCI Frederick Federally Funded Research and Development Center in Frederick, MD.

<sup>2</sup> Type 1 Diabetes Initiative mandatory funds are included in NIDDK and subtracted in Type 1 Diabetes to ensure non-duplicative counting.

<sup>3</sup> Includes funds for transfer to the Global Fund for HIV/AIDS, Malaria, and Tuberculosis (\$300 million in each year).

**NATIONAL INSTITUTES OF HEALTH**

**Budget Mechanism - Total <sup>1</sup>**  
(dollars in thousands)

MECHANISM	FY 2010		FY 2011		FY 2012		Change	
	Actual <sup>7</sup>		CR <sup>7</sup>		PB			
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Research Grants:								
Research Projects:								
Noncompeting	25,738	\$11,732,029	25,936	\$11,871,057	26,019	\$12,135,448	281	\$403,419
Administrative Supplements	1,517	174,393	1,378	164,699	1,282	154,923	(235)	(19,470)
Competing:								
Renewal	2,537	1,249,215	2,429	1,207,457	2,429	1,233,106	(108)	(16,109)
New	6,792	2,650,274	6,258	2,495,690	6,681	2,721,759	(111)	71,485
Supplements	57	15,347	47	14,168	48	14,197	(9)	(1,150)
Subtotal, Competing	9,386	\$3,914,836	8,734	\$3,717,315	9,158	\$3,969,062	(228)	\$54,226
Subtotal, RPGs	35,124	\$15,821,258	34,670	\$15,753,071	35,177	\$16,259,433	53	\$438,175
SBIR/STTR	1,685	\$651,519	1,658	\$637,161	1,675	\$649,370	(10)	(\$2,149)
Research Project Grants	36,809	\$16,472,777	36,328	\$16,390,232	36,852	\$16,908,803	43	\$436,026
Research Centers:								
Specialized/Comprehensive	1,197	\$2,294,986	1,201	\$2,227,367	1,198	\$2,242,880	1	(\$52,106)
Clinical Research	79	435,787	74	434,148	71	443,844	(8)	8,057
Biotechnology	109	153,412	100	147,078	100	148,574	(9)	(4,838)
Comparative Medicine	50	133,062	49	139,631	49	141,018	(1)	7,956
Research Centers in Minority Institutions	23	60,452	22	59,455	22	60,024	(1)	(428)
Research Centers	1,458	\$3,077,699	1,446	\$3,007,679	1,440	\$3,036,340	(18)	(\$41,359)
Other Research:								
Research Careers	4,049	\$649,044	4,025	\$651,467	4,007	\$651,917	(42)	\$2,873
Cancer Education	91	35,444	89	34,944	89	34,944	(2)	(500)
Cooperative Clinical Research	332	430,727	386	458,598	412	464,209	80	33,482
Biomedical Research Support	134	67,626	133	66,305	123	61,958	(11)	(5,668)
Minority Biomedical Research Support	371	107,035	372	106,009	378	107,232	7	197
Other	1,706	504,286	1,718	495,543	1,678	499,241	(28)	(5,045)
Other Research	6,683	\$1,794,162	6,723	\$1,812,866	6,687	\$1,819,501	4	\$25,339
Flexible Research Authority <sup>2</sup>								
<i>Flexible Research Authority</i>	0	\$0	0	\$0	0	\$20,000	0	\$20,000
Total Research Grants	44,950	\$21,344,638	44,497	\$21,210,777	44,979	\$21,764,644	29	\$420,006
Research Training:								
Individual Awards	3,071	\$125,301	3,084	\$129,510	3,104	\$134,661	33	\$9,360
Institutional Awards	14,090	649,916	13,947	652,527	13,727	659,743	(363)	9,827
Total Research Training	17,161	\$775,217	17,031	\$782,037	16,831	\$794,404	(330)	\$19,187
Research & Development Contracts (SBIR/STTR)	2,508 129	\$3,455,571 \$39,438	2,518 135	\$3,257,522 \$45,039	2,519 127	\$3,544,551 \$44,749	11 (2)	\$88,980 \$5,311
Intramural Research		\$3,331,414		\$3,342,540		\$3,381,705		\$50,291
Research Management and Support		1,507,640		1,522,721		1,537,588		29,948
Extramural Construction		0		0		0		0
Office of the Director - Appropriation <sup>3</sup>		\$1,176,844		\$1,176,299		\$1,298,412		\$121,568
Office of the Director - Other		632,816		632,271		741,522		109,251
Bridge Awards <sup>3</sup>		0		0		0		0
Common Fund <sup>3</sup>		544,028		544,028		556,890		12,862
Buildings and Facilities <sup>4</sup>		107,905		107,920		133,501		25,596
Appropriation		125,581		100,000		125,581		0
Type 1 Diabetes <sup>5</sup>		(150,000)		(150,000)		(150,000)		(0)
<b>Subtotal, Labor/HHS Budget Authority</b>		<b>\$31,005,201</b>		<b>\$30,705,788</b>		<b>\$31,747,915</b>		<b>\$742,714</b>
Interior Appropriation for Superfund Res.		79,212		79,212		81,085		1,873
<b>Total, NIH Discretionary B.A.</b>		<b>\$31,084,413</b>		<b>\$30,785,000</b>		<b>\$31,829,000</b>		<b>\$744,587</b>
Type 1 Diabetes <sup>6</sup>		150,000		150,000		150,000		0
<b>Total, NIH Budget Authority</b>		<b>\$31,234,413</b>		<b>\$30,935,000</b>		<b>\$31,979,000</b>		<b>\$744,587</b>
NLM Program Evaluation		8,200		8,200		8,200		0
<b>Total, Program Level</b>		<b>\$31,242,613</b>		<b>\$30,943,200</b>		<b>\$31,987,200</b>		<b>\$744,587</b>
<b>Grand Total, BA</b>		<b>\$31,242,613</b>		<b>\$30,943,200</b>		<b>\$31,987,200</b>		<b>\$744,587</b>

<sup>1</sup> All items in italics are "non-adds"; items in parenthesis are subtractions.

<sup>2</sup> Flexible Research Authority is noted as a non-add since the funding is accounted for within the Office of the Director (OD) - Other line.

<sup>3</sup> Number of grants and dollars for The Common Fund are distributed by mechanism and are noted here as a non-add. The Office of the Director - Appropriations also is noted as a non-add since these funds are accounted for under OD - Other and Common Fund within the above mechanism distribution.

<sup>4</sup> Includes B&F appropriation plus construction dollars appropriated to NCI.

<sup>5</sup> Number of grants and dollars for Type I Diabetes are distributed by mechanism above; therefore, Type I Diabetes amount is deducted to provide subtotals only for the Labor/ HHS Budget Authority.

<sup>6</sup> Reflects HHS ASFR specified treatment of mandatory Type I Diabetes funding from the U.S. Treasury.

<sup>7</sup> FY 2010 reflects Secretary's 1% Transfer (\$4.587 million), as well as \$1 million transfer from HHS for the Interagency Autism Coordinating Committee. FY 2011 also reflects the \$1 million transfer.

## NATIONAL INSTITUTES OF HEALTH

### Full-Time Equivalent

Institutes and Centers (ICs)	FY 2010 Actual	FY 2011 CR	FY 2012 PB
NCI	3,056	3,061	3,061
NHLBI	876	878	878
NIDCR	240	241	241
NIDDK	625	627	627
NINDS	497	499	499
NIAID	1,802	1,803	1,803
NIGMS	142	142	142
NICHD	612	614	614
NEI	250	251	251
NIEHS	666	667	667
NIA	415	416	416
NIAMS	245	245	245
NIDCD	144	145	145
NIMH	620	623	623
NIDA	396	397	397
NIAAA	224	224	224
NINR	70	71	71
NHGRI	338	340	340
NIBIB	97	98	98
NIMHD	30	30	30
NCRR	137	138	138
NCCAM	67	67	67
FIC	61	61	61
Subtotal, ICs	11,610	11,638	11,638
NLM	800	804	804
OD	667	672	672
Central Services	5,272	5,284	5,284
Subtotal, NIH	18,349	18,398	18,398
CRADA	10	10	10
Trust Fund	4	4	4
Total NIH	18,363	18,412	18,412