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

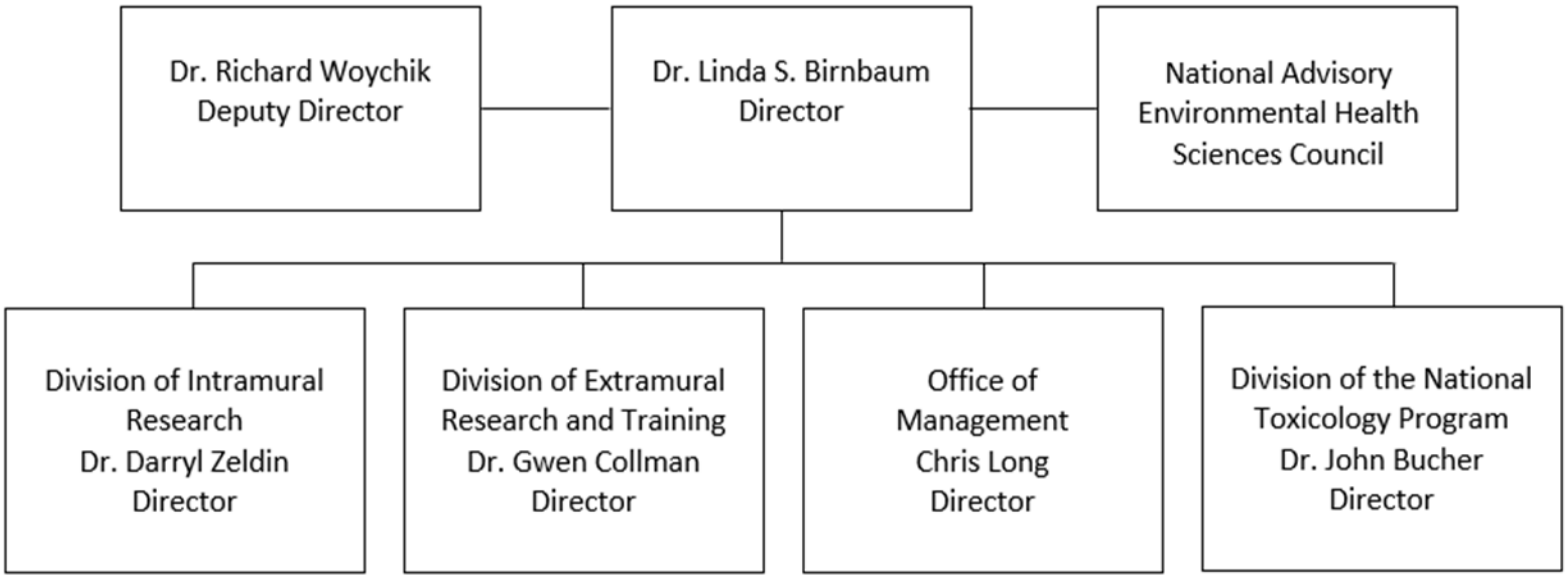
FY 2018 Budget — Page No.

Superfund-2

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, Environment, 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 (42 U.S.C. 9660(a)) and section 126(g) of the Superfund Amendments and Reauthorization Act of 1986, $59,607,000.

NATIONAL INSTITUTES OF HEALTH
Superfund

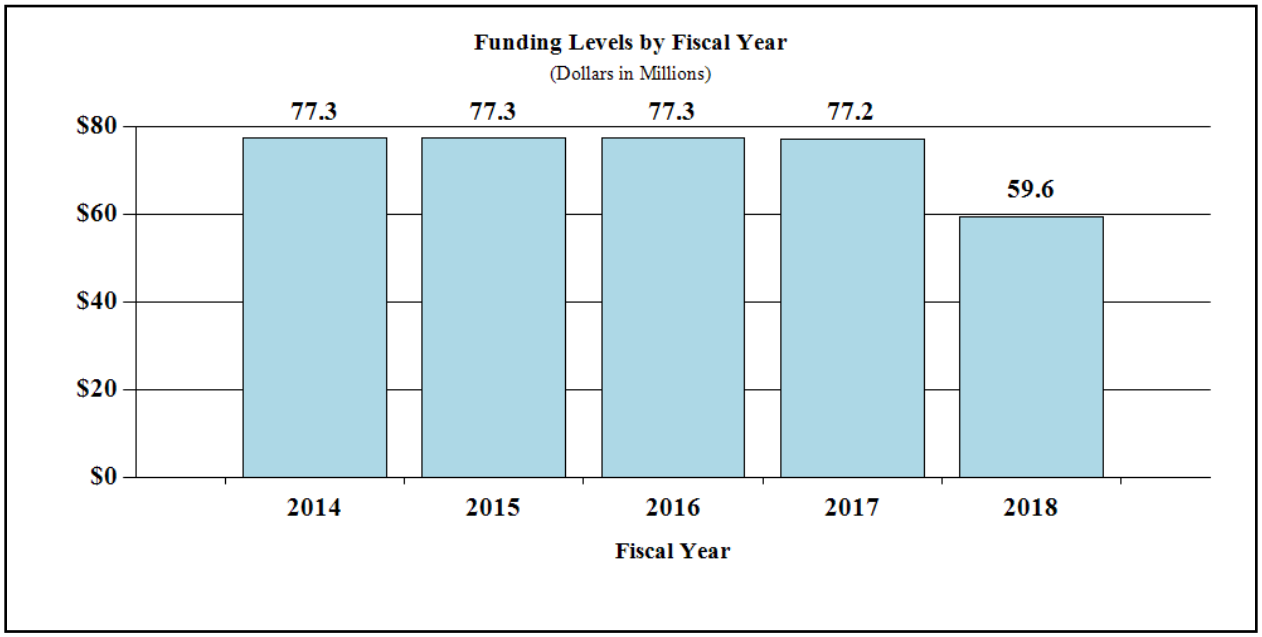
Amounts Available for Obligation[1]
(Dollars in Thousands)

Source of Funding	FY 2016 Final	FY 2017 Annualized CR	FY 2018 President's Budget
Appropriation	$77,349	$77,349	$59,607
Mandatory Appropriation: (non-add)			
Type 1 Diabetes	*(0)*	*(0)*	*(0)*
Other Mandatory financing	*(0)*	*(0)*	*(0)*
Rescission	0	-147	0
Sequestration	0	0	0
Zika Intra-NIH Transfer	0	0	0
Subtotal, adjusted appropriation	$77,349	$77,202	$59,607
OAR HIV/AIDS Transfers	0	0	0
Subtotal, adjusted budget authority	$77,349	$77,202	$59,607
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	0	0	0
Subtotal, adjusted budget authority	$77,349	$77,202	$59,607
Unobligated balance lapsing	-97	0	0
Total obligations	$77,252	$77,202	$59,607

[1] Excludes the following amounts for reimbursable activities carried out by this account:
FY 2016 - $10,100 FY 2017 - $10,104 FY 2018 - $7,719

Fiscal Year 2018 Budget Graphs

History of Budget Authority:



NATIONAL INSTITUTES OF HEALTH
Superfund

Authorizing Legislation

	PHS Act/ Other Citation	U.S. Code Citation	2017 Amount Authorized	FY 2017 Annualized CR	2018 Amount Authorized	FY 2018 President's Budget
Environmental Protection Agency's Hazardous Substance Superfund	CERCLA Section 311(a)	42 §9660 Section 9660(a)	Indefinite	$77,201,960	Indefinite	$59,607,000
	SARA Section 126(a)	42 §9660 Section 9660(a)	Indefinite		Indefinite	
Total, Budget Authority				$77,201,960		$59,607,000

NATIONAL INSTITUTES OF HEALTH
Superfund

Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
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
Rescission				$0
2010	$79,212,000	$79,212,000	$79,212,000	$79,212,000
Rescission				$0
2011	$81,763,000			$79,212,000
Rescission				$158,000
2012	$81,085,000			$79,054,000
Rescission				$126,000
2013	$78,928,000		$78,928,000	$78,927,514
Rescission				$157,855
Sequestration				($3,961,618)
2014	$79,411,000			$77,349,000
Rescission				$0
2015	$77,349,000			$77,349,000
Rescission				$0
2016	$77,349,000	$77,349,000	$77,349,000	$77,349,000
Rescission				$0
2017[1]	$77,349,000	$77,349,000	$77,349,000	$77,349,000
Rescission				$147,040
2018	$59,607,000			

[1] Budget Estimate to Congress includes mandatory financing.

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 2016 Actual	FY 2017 Annualized CR	FY 2018 President's Budget	FY 2018+ / - FY 2017
$77,349,000	$77,201,960	$59,607,000	$17,594,960

FTEs are included with the regular NIEHS appropriation.

Program funds are allocated as follows: Competitive Grants/Cooperative Agreements and Other.

Director's Overview

The Nation continues to face challenges associated with toxic waste sites and hazardous materials that have been created in the United States over decades. Through the Superfund Amendments and Reauthorization Act of 1986, the National Institute of Environmental Health Sciences (NIEHS), National Institutes of Health (NIH), supports both the Superfund Research Program (SRP) and the Worker Training Program (WTP).

- During FY 2016, SRP funded the work of 1,498 scientists and research-related activities at 258 institutions and small businesses. Since its inception, SRP has educated more than 5,300 academic trainees, produced over 10,600 peer-reviewed publications, and patented nearly 150 inventions.

- SRP supports fundamental research to develop new cleanup technologies; these capabilities are critical for delisting sites from the Superfund National Priority List (NPL). For example, the development of Dynamic Underground Stripping (DUS), a steam injection process, has been instrumental in remediating sites contaminated with chlorinated solvents. Technologies like this save millions of dollars per site in environmental remediation costs.

- Research by SRP grantees at the University of California, San Diego School of Medicine involving carbon tetrachloride-induced chronic liver injury led to the discovery of cells responsible for regenerating liver tissue. This research could potentially lead to an

effective treatment of non-alcoholic fatty liver disease, which affects more than 40 million Americans.[1]

- WTP continues to train workers to clean up National Priority List (NPL) sites across the country in a safe manner. It also builds our national capacity of first responders and other workers to respond to emergencies, such as fires, floods, and chemical releases. Over the past 30 years, WTP has trained over three million people through Superfund grants. For FY 2016, WTP provided over 1.3 million contact hours across over 90 types of courses to approximately 134,000 people. The total number of courses provided was over 8,200.

- A recent economic analysis of WTP activities, under its Environmental Career Worker Training Program (ECWTP), estimates a cumulative total value added to be $1.8 billion from 1995 through 2013, or roughly $100 million annually with a cumulative reduction of government expenditures by over $717 million during the same time period, or roughly $40 million annually.[2] Benefits are derived from the Program's effects on earnings, reduction in workplace injuries, reduction in hiring costs, reductions in crime-related costs, reductions in transfers, and additional tax revenue gained.

Overall Budget Policy:
The FY 2018 President's Budget request is $59.607 million, a decrease of $17.595 million compared to the FY 2017 Annualized CR level. These reductions are distributed across all programmatic areas.

Program Descriptions and Accomplishments

NIEHS Superfund Research Program (SRP): SRP funds university-based multidisciplinary research on human health and environmental issues related to hazardous substances. This research is improving the understanding of environmental contaminants, which may lead to lower environmental cleanup costs, reduced risk of exposure, and improvements in human health.

SRP also provides funding for Small Business Innovation Research/Small Business Technology Transfer Research (SBIR/STTR) grants that foster the commercialization of relevant technologies, products, and devices, as well as funding individual research grants. The SRP small business and university grantees strengthen the U.S. economy as they develop new tools to solve problems. The University of Arizona Superfund Research Program, for example, is working with large mining companies to test a cost-saving sustainable management strategy using native plants to stabilize mine waste, or tailings. At many older mine sites, the tailings are high in a variety of contaminants such as heavy metals, but this new process immobilizes the metals to prevent wind or water erosion, which could expose nearby communities or ecosystems.

[1] Non-Alcoholic Fatty Liver Disease: Epidemiology, Clinical Course, Investigation, and Treatment. Wei J., Rau M., Geier A. Dtsch Arztebl Int. 2014 Jun; 111(26): 447–452. Published online 2014 Jun 27. doi: 10.3238/arztebl.2014.0447 PMCID: PMC4101528
[2] The Economic Impact of the Environmental Career Worker Training Program, November 2015.

Technology transfer is an essential step for moving innovation into the market place, which in turn helps to stimulate the U.S. economy. SRP has had numerous technology transfer successes, such as nanotechnology research that led to the formation of a small business called Picoyune, which is developing mercury sensors for soil, sediment, and water. SRP also helped to fund Morphix Technologies, a small business which is developing easy-to-use, low-cost, field-ready kits that detect lead. Lead is a stable, heavy metal that is an accumulative neurotoxin in mammals and other animals. It is particularly toxic to children and is one of the most common contaminants found at Superfund sites. The Morphix detection kit will significantly enhance assessment and remediation efforts by facilitating instant readings at a fine-scale, enabling more efficient detection of contaminated areas, while substantially reducing the time and monetary costs associated with sampling.

Recently, national attention has focused on drinking water. Lead-attributable economic costs in the U.S. alone have been estimated at $50.9 billion in lost economic productivity due to reduced IQ from childhood lead exposure and $5.9 million in medical care costs for childhood lead poisoning.[3] Research funded by the SRP is providing important information to better understand the impacts of lead in drinking water, such as studies conducted by Harvard researchers identifying IQ reduction in children linked to lead exposure. They have also found that arsenic and manganese combined with even lower lead levels adversely impact neurodevelopment.[4] Specifically, arsenic is primarily associated with reduced intellectual functioning, while manganese is mainly associated with decreased fine motor function. This research is important since it is essential to investigate the effect of multiple exposures that may exist simultaneously, as the effects may differ from when only one contaminant is present.

In other water-related studies, SRP researchers are producing sustainable technologies that will remove or remediate harmful contaminants in drinking water and groundwater. Chemicals such as trichloroethylene (TCE) found in water have the potential to cause adverse health effects, yet SRP researchers are finding ways to guard against those risks. Scientists at the University of Tennessee, Knoxville have discovered nutrients that are needed to aid bacteria in breaking down TCE into safe by-products; and at Northeastern University, researchers are developing a solar-powered system to destroy TCE in groundwater.

SRP Centers promote interdisciplinary research to foster solutions, as demonstrated by Columbia University. Biomedical research in Maine school-aged children found arsenic exposure is linked to low IQ; meanwhile, Columbia researchers have engaged with communities in Maine and New Jersey to identify factors that influence households to reduce naturally occurring arsenic

[3] Reducing the staggering costs of environmental disease in children, estimated at $76.6 billion in 2008. Trasande L and Liu Y. Health Affairs 2011; 30(5): 863-870. http://content.healthaffairs.org/content/30/5/863.full.html

[4] Neurodevelopmental outcomes among 2- to 3-year-old children in Bangladesh with elevated blood lead and exposure to arsenic and manganese in drinking water. Rodrigues EG, Bellinger DC, Valeri L, Hasan MO, Quamruzzaman Q, Golam M, Kile ML, Christiani DC, Wright RO, Mazumdar M. Environ Health. 2016 Mar 12;15:44.

exposure through well-water testing and treatment.[5] Through these efforts, SRP researchers help families find cost-effective solutions to prevent the negative impacts of arsenic exposure.

At Northeastern University, technology is being developed that may revolutionize environmental and biological monitoring. Researchers there have developed a "porous extraction paddle" that can extract hundreds of potential contaminants from both urine and water samples, creating a snapshot of exposures for later analysis. Using this tool with epidemiological data, the researchers can look back in time and see what environmental exposures may be linked to negative health outcomes, such as pre-term birth.

SRP continues to fund cutting-edge science that crosses disciplines and protects our health. For example, SRP-funded researchers have identified evidence of associations between childhood leukemia, the most common type of cancer in children, and parental benzene exposure.[6] This research could help guide future prevention and intervention strategies that may eventually reduce the burden of disease. The same researchers have also used a cell-based approach to map protein targets within target cells that may be sensitive to specific chemicals, thereby creating the potential development of a rapid screening tool that could prevent exposure to hazardous chemicals.

Program Portrait: Prevention and Intervention - Cardiovascular Disease

FY 2017 Level: $10.4 million
FY 2018 Level: $ 8.0 million
Change: -$ 2.4 million

SRP-funded researchers are conducting solution-oriented research that reduces exposures, mitigates health effects, and paves the way for therapies for diseases such as cardiovascular disease (CVD). CVD is the leading cause of death in the United States[7] and costs about $207 billion each year.[8] Extensive evidence indicates that environmental factors contribute to CVD risk, incidence, and severity.

Fortunately, SRP grantees are part of our nation's defenses against this terrible disease. A number of chemical exposures have been implicated as exacerbating or causing CVD, such as trichloroethylene (TCE). The development of remediation tools to reduce hazardous substances associated with CVD is a key method to help ensure that people and communities avoid exposure. Researchers at Airlift Environmental, an SRP-funded small business, are improving the treatment of contaminated aquifers by developing an innovative remedial technology that reduces TCE concentrations in water. Similarly, growing evidence indicates that naturally occurring arsenic may increase the risk of CVD. An SRP-funded researcher at Dartmouth College is performing research on arsenic uptake into rice to discover if certain strains of rice restrict arsenic accumulation. The choice of low-arsenic rice may reduce the risk of CVD.

[5] Flanagan SV, Spayd SE, Procopio NA, Marvinney RG, Smith AE, Chillrud SN, Braman S, Zheng Y. Arsenic in private well water part 3 of 3: Socioeconomic vulnerability to exposure in Maine and New Jersey. Sci Total Environ. 2016 Aug 15;562:1019-30.
[6] Carlos-Wallace FM, Zhang L, Smith MT, Rader G, Steinmaus C (2016) Parental, In Utero, and Early-Life Exposure to Benzene and the Risk of Childhood Leukemia: A Meta-Analysis. *Am J Epidemiol*. Jan 1;183(1):1-14. PMCID: PMC4751231.
[7] http://www.cdc.gov/heartdisease/facts.htm
[8] Mozzafarian D, Benjamin EJ, Go AS, et al. on behalf of the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics—2016 update: a report from the American Heart Association. Circulation. 2016;133:e38-e360

SRP-funded science is also exploring nutrition strategies to reduce harmful health effects of contaminants that cause or exacerbate CVD. For example, exposure to polychlorinated biphenyls (PCBs) can induce atherosclerosis, but SRP researchers at the University of Kentucky have found that good nutrition may significantly decrease the harmful effects of PCBs. The scientists found that an olive oil-enriched diet reduced cell damage in mice that were exposed to PCBs. Efforts to understand how our diet can reduce disease risk from environmental pollutants is a path forward for prevention strategies. Likewise, determining if nutrients can be used as interventions is another avenue that SRP researchers are exploring. SRP grantees at Columbia University have reported evidence that folic acid supplementation may be an effective intervention for arsenic-exposed populations.[9] More research is needed, but SRP studies are paving the way to understand how specific nutritional components may minimize the negative cardiovascular health effects related to harmful chemical exposures.

Researchers at UC Davis discovered an enzyme in people with links to cardiac fibrosis; they subsequently created potent inhibitors to control its activity. This treatment reduced the type of inflammation that occurs after heart attacks, thereby opening the doors for a new therapy to stop cardiac fibrosis. Investigators also discovered this enzyme plays a role in inflammation associated with depression. Up to 15 percent of patients with CVD, and up to 20 percent of patients who have undergone coronary graft surgery experience major depression.[10] This SRP-funded research has promising implications for the development of clinical treatments of cardiac disease.

NIEHS Worker Training Program (WTP): WTP awards grants to train workers engaged in activities related to hazardous materials and waste removal, containment, transportation, and emergency response. WTP funds nonprofit organizations with a demonstrated record of providing high-quality occupational safety and health training to workers involved in handling hazardous materials or in responding to emergency releases of hazardous materials. WTP enhances, rather than replaces, private sector training responsibility by demonstrating new and cost-effective training techniques and materials.

WTP consists of several subcomponents. One of these is the Environmental Career Worker Training Program (ECWTP), which strives to empower underrepresented, underemployed, or unemployed individuals with training to increase their employment opportunities and promote engagement in improvement efforts, often in their own communities. Overall, WTP has trained about 11,000 individuals at a 71 percent job placement rate; from August 2015 through July 2016, 404 individuals were trained with 76 percent obtaining gainful employment. While this is only one component of the WTP, the overall program saves businesses and municipalities money every day through avoiding costly workplace illnesses and injuries. For example, workers at the Minnesota Office of Pipeline Safety responded to a pipeline failure and a possible release of asbestos. As a result of WTP-funded training provided by the University of Minnesota (through the University of Cincinnati's Midwest Consortium), the workers had been instructed in how to respond and effectively handle the situation. They used restricted excavation to limit the spread of contamination and kept people safe from asbestos exposure.

[9] Peters BA, Hall MN, Liu X, Parvez F, Sanchez TR, van Geen A, Mey JL, Siddique AB, Shahriar H, Uddin MN, Islam T, Balac O, Ilievski V, Factor-Litvak P, Graziano JH, Gamble MV. Folic Acid and Creatine as Therapeutic Approaches to Lower Blood Arsenic: A Randomized Controlled Trial. Environ Health Perspect. 2015 Dec;123(12):1294-301.

[10] Jiang W, Davidson JRT. Antidepressant therapy in patients with ischemic heart disease. American Heart Journal, November 2005. 150(5):871-881

To protect public health and the environment, WTP helps to ensure that people can live and work in healthy, vibrant places. A key element in this process is training workers to clean up sites safely and effectively. As part of community cleanup efforts near the former Exide Technologies lead battery recycling facility in Vernon, California, 30 Los Angeles-area residents now have jobs testing homes, schools, parks, and other properties for lead dust contamination as part of a University of California at Los Angeles' (UCLA) WTP grant. WTP creates a visible and lasting difference by training and employing community members in the restoration of their own neighborhoods.

Community sustainability and improvement often hinges on the financial wellbeing of residents. WTP provides improved job opportunities, advancement, and economic stability to graduates. In Louisiana, WTP training in environmental restoration, construction, and hazardous materials/waste for new and current trade workers has been successful. Nearly all their WTP trained graduates entered jobs with average wages of over $12 per hour. The training has had a positive effect on earnings that also lead to additional revenue through taxes, reduced costs related to workplace injury, and a reduction in hiring costs for businesses, thereby strengthening their communities.

This is also the case for the Midnite Mine in Wellpinit, WA, which is a highly contaminated uranium mine on the Superfund NPL. The mine is located within the reservation of the Spokane Indian Tribe. FY 2017 plans include ongoing training for Spokane Indian Tribe members enabling them to clean up the Midnite Mine. The Center for Construction Research and Training, a WTP grantee, is working with the International Union of Operating Engineers National Training Fund to provide 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) and 8-hour HAZWOPER refreshers to tribal members, allowing them to obtain employment at the cleanup of the Midnite Mine.

During an average year there are over 60,000 wildfires in the United States that typically burn over six million acres of land.[11] In order to contain this continuing threat to life, property, and land, WTP trains firefighters across the country from municipalities, large and small, urban and rural. The International Association of Firefighters (IAFF) has been a WTP grantee since 1987, and from August 2015 through July 2016 delivered 21 courses to 372 workers, involving over 14,392 hours. In 2016, 98 percent of participants agreed or strongly agreed that the courses provide them with the knowledge and skills needed to accomplish the job for which they received training.

WTP training saves lives, protects communities, and prevents disasters. For instance, in Florida, the Nassau County Fire Rescue Professionals (NCFRP), who had been trained through the WTP-funded IAFF HazMat/WMD Training Department, were confronted with a catastrophic situation: a tractor-trailer with a cargo tank carrying about 6,000 gallons of a dangerous chemical, anhydrous ammonia, attempted to turn into a shopping center parking lot, but became stuck in a four-foot ditch. Luckily, the NCFRP team had WTP-funded training and the safety of the surrounding community and businesses were protected.

[11] https://www.nifc.gov/fireInfo/nfn.htm

WTP supports the development and delivery of disaster-specific training to prepare workers to respond to natural disasters and possible future terrorist incidents involving weapons of mass destruction. WTP-developed training materials and instruction provide the foundation for disaster response workers to protect our nation and communities and to minimize or alleviate damage from catastrophes. For example, catastrophic flooding in August 2016 devastated Louisiana and is considered the worst natural disaster to strike the United States since Hurricane Sandy. Yet, partly thanks to WTP training, the flooding in Louisiana was met with a timely and appropriate response that reduced health risks for impacted community residents. The training further contributed to the recovery and rebuilding operations by enabling the community to help themselves. Through WTP funding, the United Steelworkers provided training to workers in Baton Rouge and New Orleans, including health and safety topics on preparing workers to assist with debris removal and rebuilding. OAI, Inc., collaborating with Mendez Environmental, provides asbestos and mold training in English and Spanish in the Baton Rouge area. Such WTP training continues to help the United States prepare for and recover from similar future disasters.

Program Portrait: Protecting Communities – Flint, MI

FY 2017 Level: $0.4 million
FY 2018 Level: $0.3 million
Change: -$0.1 million

The training that the WTP develops and conducts often involves life and death situations, as well as ensuring that danger posed to people and communities is resolved. WTP activities related to the water crisis in Flint, Michigan illustrate this important WTP tenant. A WTP grantee, Laborers International Union of North America (LIUNA), created a site-specific, minority-focused worker training program in anticipation of the waterline replacement project in Flint, Michigan. The four-week program is designed to recruit and train underserved populations from the city of Flint and Genesee County and allow them to access employment on the many construction projects currently underway in the area. From April to October 2016, LIUNA has successfully trained 173 residents new to the construction industry. The training for these residents took place over 14 weeks that accounted for 6,920 contact hours. Approximately 57 percent of participants under the grant program were minorities. Working with community-based organizations, trainees were recruited from Flint and surrounding towns, with Flint residents making up 55 percent of all trainees. Program graduates have been hired by a variety of area contractors, leading to benefits for both trainees and businesses.

The Center for Construction Research and Training established a year-long WTP-funded training program focused on residents of Flint. The Program's goals were to equip minority, low-income, unemployed/ underemployed, or dislocated residents in environmental awareness education and hands-on training culminating in certification that leads to meaningful, long-term careers in the cleanup and restoration of the Flint water system. Participants become engaged in immediate employment and an opportunity to join union apprenticeships to advance their careers in the construction industry.

Another WTP grantee, the International Chemical Workers Union Council (ICWUC), is conducting lead awareness and train-the-trainer classes in the Flint, Michigan area. They are working in partnership with the Coalition of Black Trade Unionists in Flint, Detroit, and Lansing, and with the Detroit Fire Academy. Additionally, ICWUC has translated the training into Spanish and is presenting it to Latino community groups recruited by the Labor Council for Latin American Advancement chapters in Flint through Our Lady of Guadalupe and other churches. Adding Spanish to the training programs increases the number of communities helped and lives potentially saved.

The Green Door Initiative (GDI), a member of the University of Cincinnati, Midwest Consortium for Hazardous Waste Worker Training (MWC), and WTP grantee, is working with the NAACP National and Flint Chapters to develop community training strategies for addressing the water crisis. They are providing information and training using WTP curriculum on Persistent Bio-Toxics, Toxic Use Reduction, and Reporting Environmental Releases, in addition to providing standard hazard awareness. GDI/MWC has also provided lead awareness training to Job Corps volunteers, as well as recruited volunteers through churches and assisted with the distribution of water and water sampling kits.

National Institutes of Health
Budget Request by Institute and Center

(Dollars in Thousands)	FY 2016 Final[1]	FY 2017 Annualized CR	FY 2018 President's Budget
NCI	$5,206,292	$5,504,788	$4,474,222
NHLBI	$3,109,221	$3,109,615	$2,534,803
NIDCR	$412,821	$414,792	$320,749
NIDDK[2]	$1,963,793	$1,954,550	$1,599,534
NINDS	$1,692,832	$1,692,915	$1,355,998
NIAID	$4,749,897	$4,621,127	$3,782,670
NIGMS[3,]	$2,508,960	$2,508,780	$2,185,509
NICHD	$1,338,348	$1,337,255	$1,032,029
NEI	$707,007	$714,542	$549,847
NIEHS[4]	$769,922	$769,585	$593,144
NIA	$1,596,031	$1,597,149	$1,303,541
NIAMS	$540,912	$541,110	$417,898
NIDCD	$422,351	$422,227	$325,846
NIMH	$1,516,530	$1,545,447	$1,244,901
NIDA	$1,049,059	$1,075,440	$864,998
NIAAA	$466,798	$466,811	$361,356
NINR	$145,709	$146,207	$113,688
NHGRI	$512,509	$517,969	$399,622
NIBIB	$343,026	$346,136	$282,614
NIMHD	$280,293	$279,186	$214,723
NCCIH	$129,760	$130,540	$101,793
NCATS	$684,468	$684,114	$557,373
FIC[5]	$70,019	$70,313	---
NLM	$395,138	$393,913	$373,258
B&F	$128,863	$128,618	$98,615
NIRSQ[6]	---	---	$378,546
OD[5]	$1,570,791	$1,620,213	$1,452,433
TOTAL, NIH Program Level	**$32,311,350**	**$32,593,342**	**$26,919,710**
Mandatory Type 1 Diabetes Research	-$150,000	-$139,650	-$150,000
PHS Program Evaluation	-$780,000	-$780,000	-$780,000
PCORTF Mandatory			-$106,546
Interior Budget Authority	-$77,349	-$77,202	-$59,607
Total, NIH Labor/HHS Budget Authority	**$31,304,001**	**$31,596,490**	**$25,823,557**

[1]Excludes Ebola-related and Zika-related supplemental appropriations.

[2]Includes Mandatory Type 1 Diabetes Research funding.

[3]Includes Program Evaluation financing of $780 million in FY 2016, FY 2017, and FY 2018.

[4]Includes Interior Appropriation for Superfund research.

[5]FIC eliminated in FY 2018, remaining funding/activities shift to OD.

[6]Formerly the Agency for Healthcare Research and Quality, proposed for consolidation with NIH in FY 2018.

NATIONAL INSTITUTES OF HEALTH
Detail of Full-Time Equivalent Employment (FTE)

Institutes and Centers	FY 2016 Actual	FY 2017 Annualized CR	FY 2018 President's Budget
NCI	2,991	3,047	3,047
NHLBI	931	962	962
NIDCR	228	235	235
NIDDK	643	663	663
NINDS	520	532	532
NIAID	1,943	1,963	1,963
NIGMS	180	184	184
NICHD	546	557	557
NEI	256	273	273
NIEHS	642	662	662
NIA	403	434	434
NIAMS	227	227	227
NIDCD	137	140	140
NIMH	533	563	563
NIDA	383	382	382
NIAAA	234	238	238
NINR	96	96	96
NHGRI	346	349	349
NIBIB	97	102	102
NCATS	142	167	167
NCCIH	72	73	73
NIMHD	64	68	68
FIC	62	61	---
NLM	772	741	764
OD	686	781	799
NIRSQ[4]	---	---	247
OD - CS	865	841	841
CC	1,840	1,844	1,864
CSR	394	417	417
CIT	263	257	257
ORS	536	539	539
ORF	691	707	707
Central Services[1]	4,589	4,605	4,625
Total	**17,723**	**18,105**	**18,352**
PHS Trust Fund (non-add)[2]	*4*	*4*	*4*
CRADA (non-add)[3]	*5*	*5*	*5*
PCOR Trust Fund[4]	---	---	*13*
Grand Total	**17,723**	**18,105**	**18,365**

[1] Reflects FTE associated with Central Services positions whose payroll costs are covered from NIH Management Fund and NIH Service and Supply Fund resources.

[2] PHS Trust Fund positions are incorporated within the IC's Direct-funded civilian FTE category and are treated as non-add values.

[3] CRADA positions are distributed across multiple ICs and are treated as non-add values.

[4] FTE associated the discretionary component of NIRSQ are identified only in FY 2018, consistent with the timing of the reorganization. FTE associated with mandatory component of the NIRSQ budget are identified to the Patient Centered Outcomes Research (PCOR)Trust Fund.