

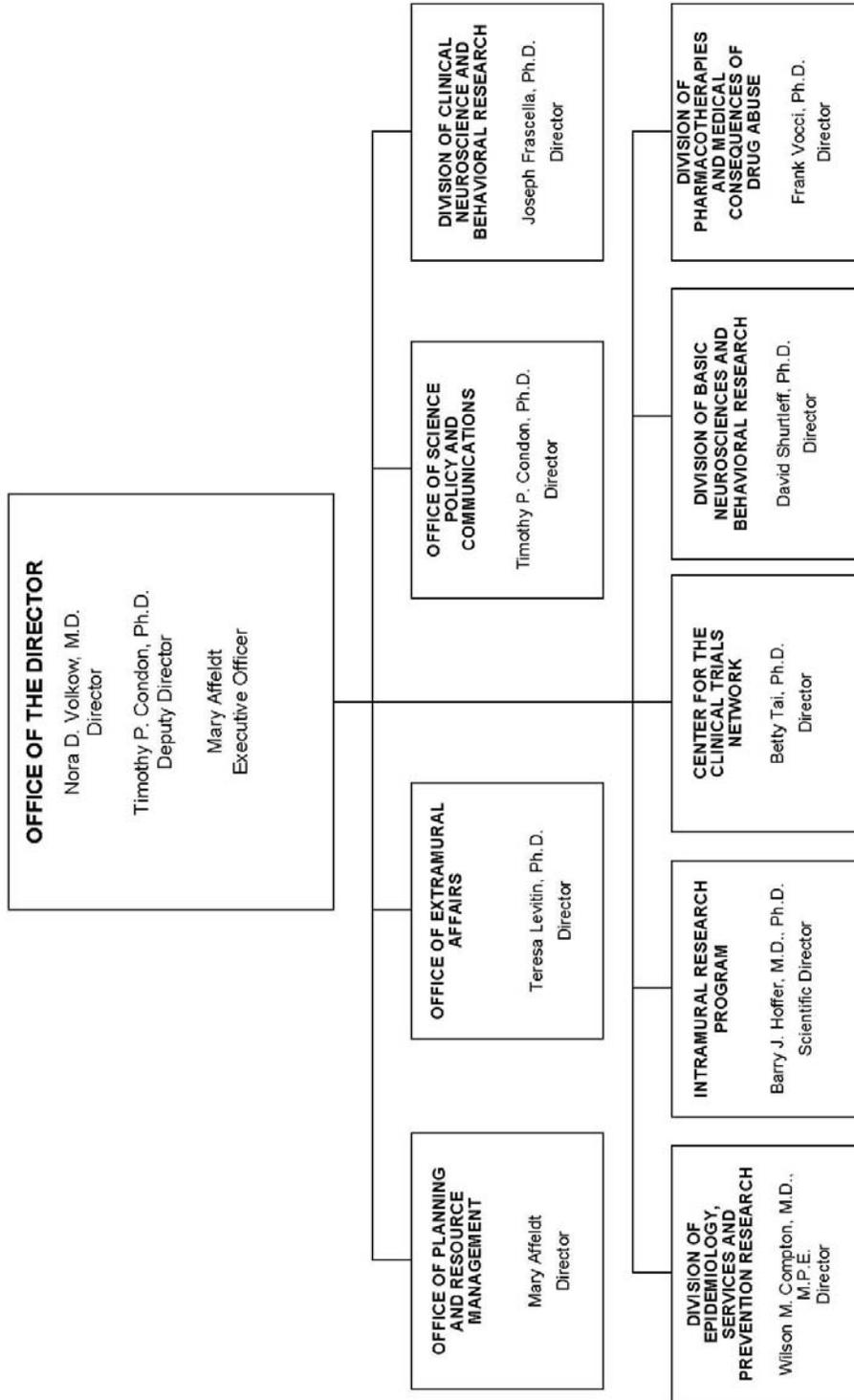
DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

National Institute on Drug Abuse

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National Institutes of Health National Institute on Drug Abuse Organizational Structure



NATIONAL INSTITUTES OF HEALTH

National Institute on Drug Abuse

For carrying out section 301 and Title IV of the Public Health Services Act with respect to drug abuse ~~\$1,018,493,000~~ **\$1,001,672,000** (Department of Health and Human Services Appropriation Act, 2008)

**National Institutes of Health
National Institute on Drug Abuse**

Amounts Available for Obligation 1/

Source of Funding	FY 2007 Actual	FY 2008 Enacted	FY 2009 Estimate
Appropriation	\$1,000,029,000	\$1,018,493,000	\$1,001,672,000
Pay cost add-on	592,000	0	0
Rescission	0	-17,793,000	0
Subtotal, adjusted appropriation	1,000,621,000	1,000,700,000	1,001,672,000
Real transfer under Director's one-percent transfer authority (GEI)	1,331,000	0	0
Comparative transfer to NIBIB	-52,000	0	0
Comparative transfer to OD	-24,000	0	0
Comparative transfer to NCRR	-529,000	0	0
Comparative transfers to the Office of the Assistant Secretary for Admin. and Mgmt. and to the Office of the Assistant Secretary for Public Affairs	-2,000	0	0
Comparative transfer under Director's one-percent transfer authority (GEI)	-1,331,000	0	0
Subtotal, adjusted budget authority	1,000,014,000	1,000,700,000	1,001,672,000
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	0	0	0
Subtotal, adjusted budget authority	1,000,014,000	1,000,700,000	1,001,672,000
Unobligated balance lapsing	0	0	0
Total obligations	1,000,014,000	1,000,700,000	1,001,672,000

1/ Excludes the following amounts for reimbursable activities carried out by this account:
FY 2007 - \$4,380,000 FY 2008 - \$4,852,000 FY 2009 - \$4,770,000
Excludes \$164,000 in FY 2008 and \$164,000 in FY 2009 for royalties.

NATIONAL INSTITUTES OF HEALTH
National Institute on Drug Abuse
(Dollars in Thousands)
Budget Mechanism - Total

MECHANISM	FY 2007 Actual		FY 2008 Enacted		FY 2009 Estimate		Change	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Research Grants:								
Research Projects:								
Noncompeting	1,045	\$411,218	1,043	\$428,646	1,069	\$430,600	26	\$1,954
Administrative supplements	(125)	9,971	(125)	7,000	(175)	9,971	(50)	2,971
Competing:								
Renewal	87	45,170	83	43,076	79	41,403	(4)	-1,673
New	326	104,262	314	90,191	298	85,595	(16)	-4,596
Supplements	1	458	0	0	0	0	0	0
Subtotal, competing	414	149,890	397	133,267	377	126,998	(20)	-6,269
Subtotal, RPGs	1,459	571,079	1,440	568,913	1,446	567,569	6	-1,344
SBIR/STTR	59	18,147	57	17,400	57	17,361	0	-39
Subtotal, RPGs	1,518	589,226	1,497	586,313	1,503	584,930	6	-1,383
Research Centers:								
Specialized/comprehensive	44	69,366	45	71,191	45	71,191	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
Subtotal, Centers	44	69,366	45	71,191	45	71,191	0	0
Other Research:								
Research careers	254	37,805	260	38,771	260	38,771	0	0
Cancer education	0	0	0	0	0	0	0	0
Cooperative clinical research	20	37,368	20	34,750	20	34,750	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	55	12,669	56	13,069	56	13,069	0	0
Subtotal, Other Research	329	87,842	336	86,590	336	86,590	0	0
Total Research Grants	1,891	746,434	1,878	744,094	1,884	742,711	6	-1,383
Research Training:								
Individual awards	183	6,576	183	6,576	183	6,642	0	66
Institutional awards	362	17,306	362	17,306	362	17,479	0	173
Total, Training	545	23,882	545	23,882	545	24,121	0	239
Research & development contracts (SBIR/STTR)	197 (16)	91,077 (6,017)	197 (16)	91,613 (6,000)	197 (16)	91,613 (6,000)	0 (0)	0 (0)
Intramural research								
FTEs	123	82,188	123	83,832	124	85,089	1	1,257
Research management and support	248	56,433	252	57,279	254	58,138	2	859
Construction		0		0		0		0
Buildings and Facilities		0		0		0		0
Total, NIDA	371	1,000,014	375	1,000,700	378	1,001,672	3	972

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research

NATIONAL INSTITUTES OF HEALTH
National Institute on Drug Abuse
BA by Program
(Dollars in thousands)

Extramural Research Detail:	FY 2005		FY 2006		FY 2007		FY 2007		FY 2007		FY 2008		FY 2009		Change	
	Actual	Actual	Actual	Actual	Actual	Actual	Enacted	Estimate								
	FTEs	Amount	FTEs	Amount	FTEs	Amount	FTEs	Amount	FTEs	Amount	FTEs	Amount	FTEs	Amount	FTEs	Amount
Basic and Clinical Neuroscience and Behavioral Research		442,452		436,232		457,812		456,003		455,361		456,003		455,361		-\$642
Epidemiology, Services and Prevention Research		250,964		253,781		243,426		242,709		241,860		242,201		241,860		-341
Pharmacotherapies and Medical Consequences		125,761		118,526		114,972		114,681		114,280		114,441		114,280		-161
Clinical Trials Network		53,933		54,704		47,043		47,043		46,944		46,944		46,944		0
Subtotal, Extramural		873,110		863,243		863,253		861,393		858,445		859,589		858,445		-1,144
Intramural research	116	79,450	120	80,970	123	82,188	123	82,188	123	83,832	124	85,089	123	83,832	124	1,257
Res. management & support	220	53,859	241	55,129	248	56,511	248	56,433	252	57,279	254	58,138	252	57,279	254	859
TOTAL	336	1,006,419	361	999,342	371	1,001,952	371	1,000,014	375	1,000,700	378	1,001,672	375	1,000,700	378	972

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research

Major Changes in the Fiscal Year 2008 Budget Request

Major changes by budget mechanism and/or budget activity 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 2009 budget request for NIDA, which is \$972 thousand greater than the FY 2008 Estimate, for a total of \$1.002 billion.

Research Project Grants (-\$1.383 million; total \$584.93 million): NIDA will support a total of 1,446 Research Project Grant (RPG) awards in FY 2009. Non competing RPGs will increase by 26 awards and increase by \$2 million. Competing RPGs will decrease by 19 awards and decrease by \$6.2 million. The NIH Budget policy for RPGs in FY 2009 is to provide no inflationary increases in noncompeting awards and no increase in average cost for competing RPGs. These measures will allow NIDA to achieve the project goals and expected accomplishments as outlined in the Justification Narrative. Intramural research and Research Management and Support receive modest increases to help offset the cost of pay and other increases. NIDA will continue to support new investigators and to maintain an adequate number of competing RPGs.

Research Training (+\$.2 million; total \$24.1 million): NIDA will continue its support for the research training program, which has allowed new scientists to enter the field of biomedical research by allowing an increase of \$24.1 million in stipend levels.

Intramural Research (+\$1.2 million; total \$85.1 million): NIDA will continue to expand its support for the intramural program which will allow us to achieve our program goals and accomplishments as outlined in the Justification Narrative for the Intramural Research Program area as described below.

NATIONAL INSTITUTES OF HEALTH
National Institute on Drug Abuse
Summary of Changes

FY 2008 enacted		\$1,000,700,000	
FY 2009 estimated budget authority		1,001,672,000	
Net change		972,000	
CHANGES	2008 Current Enacted Base		Change from Base
	FTEs	Budget Authority	FTEs Budget Authority
A. Built-in:			
1. Intramural research:			
a. Annualization of January 2008 pay increase			
		\$19,275,000	\$217,000
b. January FY 2009 pay increase			
		19,275,000	425,000
c. One less day of pay			
		19,275,000	(74,000)
d. Payment for centrally furnished services			
		8,812,000	132,000
e. Increased cost of laboratory supplies, materials, and other expenses			
		55,745,000	1,105,000
Subtotal			1,805,000
2. Research management and support:			
a. Annualization of January 2008 pay increase			
		\$32,450,000	\$366,000
b. January FY 2009 pay increase			
		32,450,000	716,000
c. One less day of pay			
		32,450,000	(124,000)
d. Payment for centrally furnished services			
		6,026,000	90,000
e. Increased cost of laboratory supplies, materials, and other expenses			
		18,803,000	367,000
Subtotal			1,415,000
Subtotal, Built-in			3,220,000

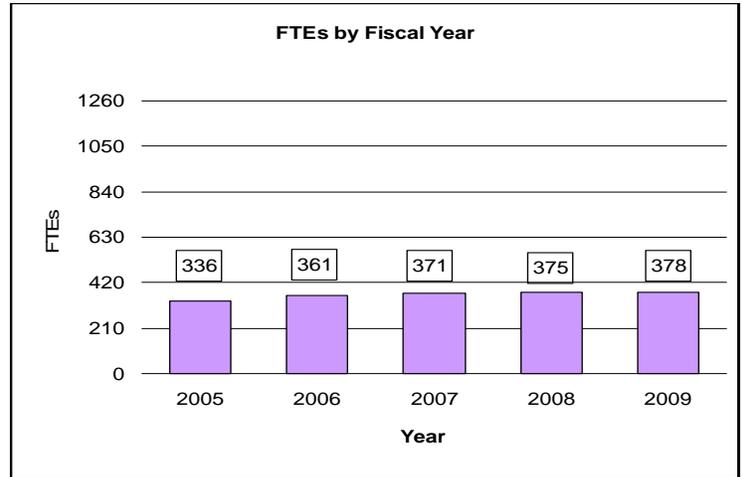
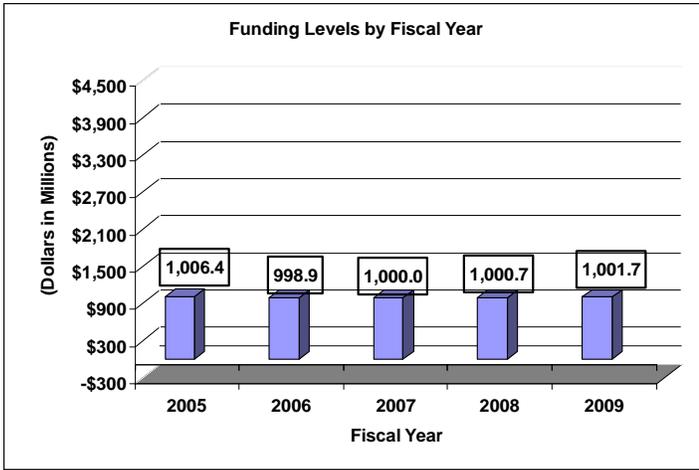
**NATIONAL INSTITUTES OF HEALTH
National Institute on Drug Abuse**

Summary of Changes--continued

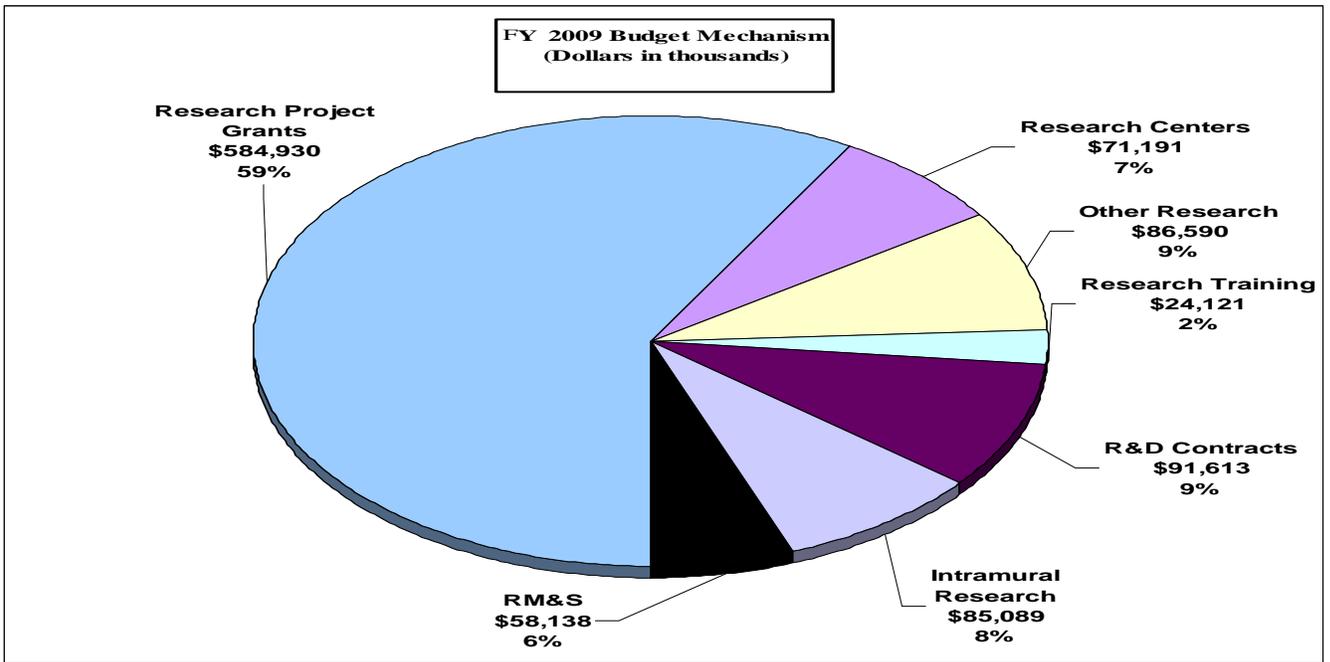
CHANGES	2008 Current Enacted Base		Change from Base	
	No.	Amount	No.	Amount
B. Program:				
1. Research project grants:				
a. Noncompeting	1,043	\$435,646,000	26	\$4,925,000
b. Competing	397	133,267,000	(20)	(6,269,000)
c. SBIR/STTR	57	17,400,000	0	(39,000)
Total	1,497	586,313,000	6	(1,383,000)
2. Research centers	45	71,191,000	0	0
3. Other research	336	86,590,000	0	0
4. Research training	545	23,882,000	0	239,000
5. Research and development contracts	197	91,613,000	0	0
Subtotal, extramural				(1,144,000)
	<u>FTEs</u>		<u>FTEs</u>	
6. Intramural research	123	83,832,000	1	(548,000)
7. Research management and support	252	57,279,000	2	(556,000)
8. Construction		0		0
9. Buildings and Facilities		0		0
Subtotal, program		1,000,700,000		(2,248,000)
Total changes	375		3	972,000

FISCAL YEAR 2009 BUDGET GRAPHS

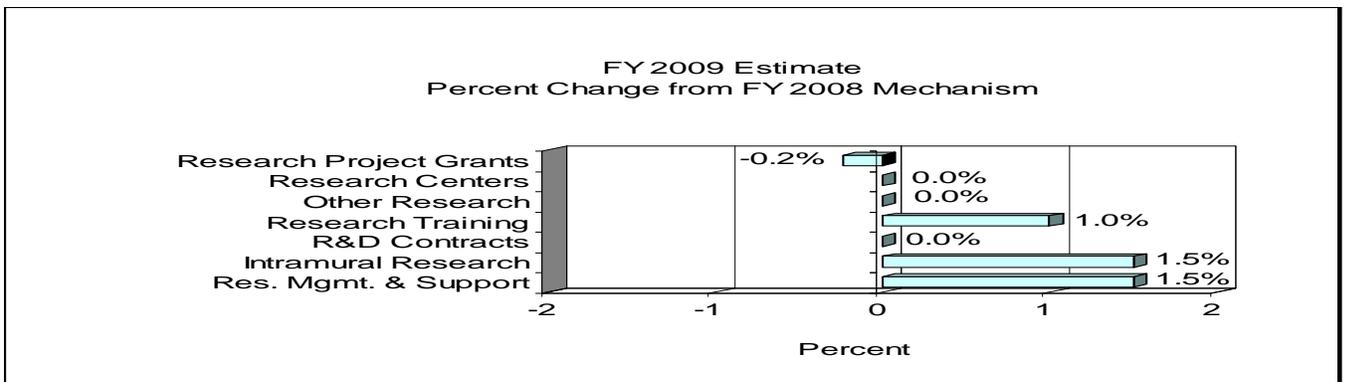
History of Budget Authority and FTEs:



Distribution by Mechanism:



Change by Selected Mechanisms:



Justification of Budget Request

Authorizing Legislation: Section 301 and title IV of the Public Health Service Act, as amended.

Budget Authority:

FY 2007 Actual		FY 2008 Enacted		FY 2009 Estimate		Increase or Decrease	
<u>FTE</u>	<u>BA</u>	<u>FTE</u>	<u>BA</u>	<u>FTE</u>	<u>BA</u>	<u>FTE</u>	<u>BA</u>
370	\$1,000,014,000	375	\$1,000,700,000	378	\$1,001,672,000	+3	+\$972,000

This document provides justification for the Fiscal Year (FY) 2009 activities of the National Institute on Drug Abuse (NIDA), including NIH/AIDS activities. Details of the FY 2008 HIV/AIDS activities are in the “Office of AIDS Research (OAR)” Section of the Overview. Details on the Common Fund are located in the Overview, Volume One. Program funds are allocated as follows: Competitive Grants/Cooperative Agreements; Contracts; Direct Federal/Intramural and Other.

Director’s Overview

Over the past three decades, NIDA-supported research has revolutionized our understanding of addiction as a chronic, relapsing brain disease—knowledge that is helping to correctly situate addiction as a serious public health issue that demands strategic solutions. By supporting research that reveals how drugs affect the brain and behavior and how multiple factors influence drug abuse and its consequences, NIDA is advancing effective strategies to prevent people from ever using drugs and to treat them when they cannot stop.

NIDA-supported research has already led to positive shifts in behaviors and in disapproving attitudes toward abusing drugs. Research has informed more effective messages that speak to adolescents, helping to **preempt** drug abuse in this vulnerable population. Today, approximately 860,000 fewer young people are using illicit drugs than in 2001. NIDA’s latest Monitoring the Future Survey of 8th, 10th, and 12th graders (2007) shows substantial declines in past-year illicit drug use for all grades since a decade ago, and use of nicotine is lower than at any time since the survey began in 1975.

And while we are proud of the progress we have helped to catalyze, challenges remain. A major one is the persistent high levels of abuse of prescription drugs, such as stimulants and pain relievers. Nearly 1 in 10 high school seniors reported non-medical use of the powerful opiate medication Vicodin in the past year. Notably, 5 of the top 10 drugs most abused by 12th grade students are prescription drugs, with abuse of over-the-counter cough medicine also problematic. We will continue to address these trends, along with other challenges, applying new insights and methods to further our mission.

New Tools, New Opportunities

Today, we are poised to capitalize on new tools and technologies to reveal and counter different aspects of drug abuse and addiction. For example, the application of modern genetics tools will increase our **predictive** abilities to ascertain biological risk, or a person's inherent susceptibility to disease. Such tools will also help inform the design and tailoring of treatments that make use of a patient's genetic profile (i.e., a "pharmacogenetic" approach), resulting in more **personalized** treatments. To complement these efforts, NIDA is investing in the newer field of *epigenetics*, which focuses on the lasting modifications to DNA structure and function resulting from exposure to various stimuli. Attention to epigenetic phenomena is crucial for understanding the interactions of genes, environment, and development, including the deleterious long-term changes to brain circuits from drug abuse. New methods are also opening the door to the identification of a variety of potential biomarkers (or biological "signatures") of chronic drug exposure and drug toxicities.

To make this knowledge count, we must first optimize the bioinformatics infrastructure needed to make the growing databases more widely available to the scientific community. To this end, we will develop more efficient ways to analyze, integrate, store, and retrieve the massive amounts of data that will be generated by genomic, epigenomic, and proteomic scans, for example.

Medications Development—the Promise of New Discoveries

Medications development is an important focus for NIDA and one that offers exciting opportunities even while it presents ongoing challenges. A major one is the limited pharmaceutical industry involvement in developing and testing potential addiction medications, which makes it critical for NIDA to be able to pursue and test newly defined targets for different drugs of abuse. Indeed, we support multiple trials of promising medications for use by themselves or with behavioral treatments to counter addiction, focusing on marijuana and stimulants, including methamphetamine. We are also supporting research to develop pain medications with diminished abuse liability.

Several novel approaches to addiction pharmacotherapy have been tested and are advancing to the next stage of research and development. Many of these have emerged from an improved understanding of the brain circuitry involved in addiction, leading to an expanded range of possible targets to potentially affect craving, euphoria, motivation, learning, memory, and inhibitory control—key contributors to addiction and relapse. One innovative strategy in which NIDA is investing is immunotherapy, or "vaccines," for methamphetamine, cocaine, and nicotine dependence, the latter already in commercial development. Addiction immunotherapy causes the body to generate antibodies that bind to specific drugs while they are still in the bloodstream, blocking their entry into the brain. Such approaches have great potential to help people remain abstinent and avoid relapse once they are in treatment.

New Strategies to Fight the Evolving HIV/AIDS Epidemic

The nature of the HIV epidemic in this country is changing, with new infections now spread less frequently through injection drug use than through other routes, such as high-risk heterosexual sex. In this regard, drug abuse continues to play a major role in the spread of HIV—by altering judgment that leads to impulsive high-risk sex, or by prompting risky behaviors driven by addiction, such as sex for drugs. Understanding this link is critical for developing more integrated and effective prevention strategies, and is reflected in our HIV initiatives and research portfolio. This includes research to mitigate the health disparities that fall disproportionately on ethnic minorities, particularly African Americans, at heightened risk for disease transmission and accelerated disease progression. Gathering meaningful data on the factors contributing to these disparities will be integral to efforts to resolve them through earlier diagnosis and treatment.

Conclusion

NIDA is carrying out our mission “to lead the Nation in bringing the power of science to bear on drug abuse and addiction,” which includes rapidly disseminating the results of our research to better prevent and treat this disease and its consequences. This time of extraordinary scientific opportunity is moving us toward a future when drug addiction is viewed—and treated—in a manner similar to other medical conditions, where treatment is proactive and **participatory**, with both patient and physician monitoring its success. The new knowledge generated will also allow us to develop better strategies to prevent young people from ever using drugs in the first place. The research that NIDA supports is helping to make all this happen, easing the tremendous suffering that addiction brings to individuals, communities, and our society as a whole.

FY 2009 Justification by Activity Detail

Program Descriptions and Accomplishments

Clinical and Basic Neuroscience: Clinical and basic neuroscience represent two programs in NIDA that work together to enlarge understanding of the neurobiological, genetic, and behavioral factors underlying drug abuse and addiction. Specifically, they examine the factors affecting increased risk and/or resilience to drug abuse, addiction, and drug-related disorders; the mechanisms of addiction; and the effects of drugs on the brain and behavior. Together, they provide the fundamental information to develop and inform prevention and treatment interventions for drug abuse and addiction.

In March 2007, NIDA and NIEHS hosted an NIH Roadmap Workshop on *The Epigenetics of Human Health and Disease* to define the unique opportunities for advancing epigenetics research through new technologies and data aimed at improving human health and preventing disease (<http://nihroadmap.nih.gov/epigenomics>). In October 2007, NIDA sponsored a meeting to highlight the latest social neuroscience findings, which could lead to

more powerful behavioral interventions. Together with other institutes, NIDA is funding ongoing studies to stimulate investigations of the cognitive/behavioral processes and neurobiological mechanisms of social behavior relevant to drug abuse and decision-making over the life course.

Portrait of a Program: Genetics and Addiction

FY 2008 Level: \$60.8 million

FY 2009 Level: \$60.8 million

Change \$0.0 million

Research has shown that, like many other diseases, the causes of drug abuse and addiction are complex, with genetic, environmental, and developmental factors all contributing. Genetics accounts for approximately half of an individual's vulnerability to addiction, including how genes interact with the environment and stage of development. Thanks to recent scientific advances, we are now poised to further untangle these factors and to use that knowledge to better tailor prevention and treatment strategies.

An important goal in understanding the role of genetics in addiction is unraveling how genes affect brain function and how this in turn influences behavior. Genes do not act in isolation, rather in tandem with developmental and environmental factors. Cross-disciplinary efforts are needed to understand what underlies vulnerability to or protection from drug abuse and addiction. To this end, NIDA is applying modern imaging and genetics tools to our large population-based studies to tease apart the complex contributions of environmental and genetic risk factors through the life stages of childhood, adolescence, and young adulthood—periods of greatest vulnerability for drug experimentation and addiction. NIDA is supporting research to define and measure aspects of the social environment—culture, neighborhoods, schools, families, and peer groups—to understand how genes may mitigate or amplify social influences, known to powerfully affect individual choices and behaviors related to substance abuse.

As part of the approach to understanding the multifactorial interplay between genes, environment, and development in addiction, NIDA is a leading partner in the NIH-wide Roadmap Epigenomics Program. This initiative aims to investigate how environmental stimuli can bring about long-term changes in gene expression. NIDA is particularly interested in exposure to drugs of abuse and stress. The first RFAs to investigate the role of epigenetics in health and disease are scheduled for release in 2008.

[FY 09 funding for genetics projects is spread across different NIDA funding mechanisms and therefore encompasses different start dates and average lengths.](#)

Complementing these efforts, NIDA will focus on pharmacogenomics, or the study of how genes regulate an individual's reaction to drugs and medications. Not only will this research illuminate the physiological mechanisms of drug abuse and addiction, it has the potential to empower treatment providers by helping them tailor pharmaceutical interventions to individual patient needs—from selecting the most effective medication and dosage regimen to anticipating and avoiding adverse effects.

Budget Policy: The 2009 estimate for this program area is \$455.4 million, a decrease of \$642,000 below the FY 2008 enacted. By applying funds from grants that are ending in FY 08, we will pursue opportunities in line with our top priorities, one of which is to explore new biological targets to counter drug abuse

and addiction. For example, glial cells in the brain are known to be involved in neuronal development and in protection against neuronal damage. NIDA intends to publish an RFA soliciting basic research applications to elucidate how drug abuse and glial cell function interact. NIDA also plans to stimulate basic research on the mechanisms underlying extinction learning (i.e., learning that alters conditioned responses to stimuli) as it pertains to drug-taking behaviors. This RFA encourages the testing of pharmacological and genetic interventions to enhance extinction learning and thereby reduce the salience of drug-associated cues and the powerful drive behind drug-seeking behaviors.

Epidemiology, Services and Prevention Research: This major program area seeks to promote integrated approaches to understand and address the interactions between individuals and environments that contribute to the continuum of drug abuse-related problems. The vision is to support research to prevent drug abuse and to optimize service delivery in real-world settings. Along with individual research studies, the program also supports major data collection systems and surveillance networks to help identify substance abuse trends locally, nationally, and internationally, to guide development of responsive interventions for a variety of populations.

In March 2007, NIDA held a pioneering public meeting on pain relief and addiction to discuss the growing problem of prescription painkiller abuse and the potential for addiction in patients with chronic pain conditions. The meeting was held in collaboration with the NIH Pain Consortium and the American Medical Association. In July 2007, NIDA co-hosted a meeting with SAMHSA to further the goal of creating reliable and valid drug abuse screening and brief intervention tools for use in primary care settings.

Budget Policy: The 2009 estimate for this program area is 241.9 million, a decrease of \$341,000 below the FY 2008 enacted. A major focus for this NIDA program area is to improve drug abuse prevention and treatment services, particularly in medical and criminal justice settings. A budget decrease will limit support of new and existing programs. However, even with a budget decrease, NIDA will support targeted research on how drug abuse treatment can be integrated into criminal justice systems through its Criminal Justice Drug Abuse Treatment Research Studies (CJ-DATS). This will include a focus on developing an HIV continuum of care and on improving the implementation of screening and assessment tools and treatment interventions applied during incarceration and community re-entry. NIDA is also calling for studies to develop and test comprehensive models of care that integrate drug screening, brief intervention, and referral to specialized treatment by physicians working in general healthcare settings.

Pharmacotherapies and Medical Consequences: This program area is responsible for medications development aimed at helping people recover from drug abuse and addiction and sustain abstinence. Capitalizing on research

showing the involvement of different brain systems in drug abuse and addiction—beyond the dopamine system—NIDA’s medications development program is pursuing a variety of newly defined targets and treatment approaches. This program area also seeks solutions addressing the medical consequences of drug abuse and addiction, including infectious diseases such as HIV.

In 2007, a pharmaceutical company working with NIDA announced positive results of its efficacy (Phase II) trials of NicVax, a vaccine designed to promote smoking cessation by inducing antibodies that block nicotine from entering the brain. In the HIV arena, NIDA held a science meeting in May 2007 on the significant and growing role of noninjection drug use in sexual transmission of HIV.

Budget Policy: The 2009 estimate for this program area is \$114.3 million a decrease of \$161,000 below the FY 2008 enacted. Program plans for 2009 give highest priority to testing innovative therapies for cannabis and stimulants, including methamphetamine. NIDA will support research to develop new medications designed to diminish conditioned responses, promote new learning, and inhibit stress-induced relapse. Building on the promise of the nicotine vaccine, now in commercial development, NIDA is also investing in an immunological approach to treat methamphetamine and cocaine addiction. Addiction immunotherapy causes the body to generate antibodies that bind to specific drugs while they are still in the bloodstream, blocking their entry into the brain. Such approaches have great potential to help people remain abstinent and avoid relapse once they are in treatment.

Portrait of a Program: HIV/AIDS and Drug Abuse

FY 2008 Level:	\$301.5 million
FY 2009 Level:	<u>\$301.5 million</u>
Change	\$0.0 million

The intertwined epidemics of drug abuse and HIV/AIDS present unique prevention and treatment challenges, related in part to changing HIV infection patterns in the United States. For example, transmission by means of injection drug use is on the decline, while transmission via high-risk heterosexual sex shows an increase. Non-injection drug abuse contributes to this trend by altering judgment and behavior, either through addiction or intoxication leading to poor decision-making and harmful behaviors, including unsafe sex. HIV/AIDS demographics are also shifting, with ethnic minorities experiencing daunting disparities in vulnerability to HIV and its consequences, particularly African Americans. Improved HIV screening and proper access to treatment is vital to reducing these disparities and curtailing disease spread. The CDC estimates that 25% of HIV-positive individuals in the United States are unaware they are infected and account for roughly half of new infections, underscoring the need for efforts aimed at early detection and treatment. NIDA is pursuing research on the best ways to integrate testing and counseling into drug abuse treatment settings in communities, among criminal justice populations, and in international regions hit especially hard by the epidemic. This includes efforts to advance the adoption of rapid-screen technologies.

NIDA supports research to learn more about how drug abuse and HIV interrelate. NIDA is issuing cross-disciplinary RFAs in 2008 to investigate the contribution of genetic factors and how co-occurring drug abuse can complicate HIV treatment through, for example, drug-drug interactions from combining medications for HIV/AIDS, addiction, or other medical conditions. Studies to help elucidate and minimize these interactions will enable more effective treatments for all aspects of a patient's health.

[FY 09 funding for HIV/AIDS grants is spread across different NIDA funding mechanisms and therefore encompasses different start dates and lengths.](#)

Our international portfolio focuses on the continued role of injection drug use, mainly heroin, in HIV transmission. Unlike in the United States, where methadone and buprenorphine have revolutionized the treatment of heroin addiction, in some other countries these medications are not acceptable or accessible. NIDA will therefore call for studies to develop a heroin vaccine for use internationally.

The changing face of the HIV/AIDS health crisis requires innovative, cutting-edge research strategies. To foster innovation, NIDA has created the 2008 Avant-Garde Award to encourage individual scientists to propose transformative, novel approaches to the study of HIV/AIDS and drug abuse. Avant-Garde awardees will bring exceptional creativity, cross-

Clinical Trials Network: NIDA's National Drug Abuse Treatment Clinical Trials Network (CTN), which now comprises 16 research nodes and more than 240 individual community treatment programs, serves 34 States, plus the District of Columbia and Puerto Rico. The CTN tests the effectiveness of new and improved interventions in real-life community settings with diverse populations. It also serves as a research and training platform to help NIDA respond to emerging public health areas. Currently, the CTN provides an effective research platform for more than 30 research grants and a training platform for 60+ research fellows and junior faculty.

Promising CTN activities in 2007 include progress in clinical trials involving patients with comorbid Attention Deficit Hyperactivity Disorder (ADHD) and drug abuse, as well as trials of prescription opioid addiction treatments. Buprenorphine/naloxone, in combination with psychotherapy, is being tested as treatment for pain patients and others addicted to opioid medications. In addition, the CTN has just completed a study to use buprenorphine with adolescents and young adults addicted to heroin; preliminary results are positive.

Budget Policy: The 2009 estimate for this program area is \$46.9 million, the same level as the FY 2008 enacted. Program plans, along with expected accomplishments, are to re-compete some of the CTN nodes (2010), or centers, and to continue support of CTN trials evaluating promising medications and other treatment approaches in diverse patient populations. For example, CTN protocols will (1) assess new HIV rapid-screen technologies and counseling in CTN-affiliated community treatment programs and (2) evaluate the effectiveness of a 12-step facilitation intervention in stimulant abusing patients to initiate and sustain involvement with support groups like Alcoholics or Cocaine Anonymous.

Intramural Research Program (IRP): This Intramural program performs cutting edge research within a coordinated multidisciplinary framework. IRP attempts to elucidate the nature of the addictive process; to determine the potential use of new therapies for substance abuse, both pharmacological and psychosocial; and to decipher the long-term consequences of drugs of abuse on brain development, maturation, function, and structure, and on other organ systems.

Recent IRP activities include the conduct of basic research to understand the role of mitochondria—the “powerhouse” of a cell that breaks down glucose to release energy—in degenerative neurological diseases (e.g., Parkinson’s Disease). IRP activities also use a variety of animal models of addiction to better understand the effects of drugs on brain and behavior. In addition, the IRP operates a Teen Tobacco Addiction Treatment Research Clinic, which is assessing the safety and efficacy of quit products such as the nicotine patch and gum, in combination with group therapy, for teens who want to stop smoking.

Budget Policy: The 2009 estimate for this program area is \$85.1 million, an increase of \$1.3 million, or 1.5 percent above the FY 2008 enacted. Program plans include initiating major new studies on how HIV infects the brain leading to neurological complications (i.e., neuroAIDS), particularly among drug abusers. NIDA also plans to take advantage of new and emerging techniques, including genetics technology and laser capture microscopy, to permit an unprecedented level of resolution and detail in our understanding of addiction circuits, and provide new targets for medications development. Other plans include

understanding the role of exercise in protecting and regenerating midbrain dopamine circuits.

Research Management and Support (RMS): RMS activities provide administrative, budgetary, logistical, and scientific support in the review, award, and monitoring of research grants, training awards, and research and development contracts. Additionally, the functions of RMS encompass strategic planning, coordination, and evaluation of NIDA's programs, regulatory compliance, international coordination, and liaison with other Federal agencies, Congress, and the public. NIDA currently oversees more than 1,800 research grants and more than 190 research and development contracts.

In addition to the infrastructure required to support research and training, NIDA also strives to rapidly disseminate research information to inform policy and improve practice. As an example, NIDA partnered with NIAAA, HBO, and the Robert Wood Johnson Foundation to launch the groundbreaking and Emmy award winning documentary ADDICTION in March, 2007. This included a multimedia public health campaign that spotlighted promising scientific advancements and personal testimonials to help Americans understand addiction as a chronic yet treatable brain disease. In October 2007, NIDA held a Drug Facts Chat Day via the Internet to give students and teachers in classrooms across the United States the chance to ask questions and receive answers in "real time" about drug effects, addiction, and treatment.

Budget Policy: The 2009 estimate for this program area is \$58.1 million, an increase of \$859,000, or 1.5 percent above the FY 2008 enacted. NIDA will continue to support scientific meetings to stimulate interest and develop research agendas in areas significant to drug abuse and addiction. These meetings, as well as input from the NIDA Director, the National Advisory Council on Drug Abuse, NIDA Staff, Program Experts, and Constituent Organizations, have been critical to the development of NIDA's new 5-year Strategic Plan (to be completed in FY 2008). The plan outlines major goals that will guide NIDA's research agenda for the future. NIDA will also continue to support educational outreach aimed at diverse audiences, including the general public, HIV high-risk populations, physicians, and educators to help raise awareness of substance abuse issues and disseminate promising prevention and treatment strategies.

NIH Common Fund: NIDA is the lead institute for the Epigenomics initiative supported through the NIH common Fund. The NIDA participates in the support of Institutional Training Grants Interdisciplinary Training, and Facilitating Interdisciplinary Research via Methodological and Technological Innovation in the Behavioral and Social Sciences funded through the NIH Common Fund.

NATIONAL INSTITUTES OF HEALTH
National Institute on Drug Abuse
Budget Authority by Object

	FY 2008 Enacted	FY 2009 Estimate	Increase or Decrease	Percent Change
Total compensable workyears:				
Full-time employment	375	378	3	0.8
Full-time equivalent of overtime and holiday hours	0	0	0	0.0
Average ES salary	\$151,000	\$155,379	\$4,379	2.9
Average GM/GS grade	12.6	12.6	0.0	0.0
Average GM/GS salary	\$102,270	\$105,236	\$2,966	2.9
Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207)	\$95,047	\$97,084	\$2,037	2.1
Average salary of ungraded positions	101,655	104,603	2,948	2.9
OBJECT CLASSES	FY 2008 Estimate	FY 2009 Estimate	Increase or Decrease	Percent Change
Personnel Compensation:				
11.1 Full-time permanent	\$27,308,000	\$28,786,000	\$1,478,000	5.4
11.3 Other than full-time permanent	8,973,000	9,443,000	470,000	5.2
11.5 Other personnel compensation	1,382,000	1,444,000	62,000	4.5
11.7 Military personnel	1,545,000	1,615,000	70,000	4.5
11.8 Special personnel services payments	2,495,000	2,568,000	73,000	2.9
Total, Personnel Compensation	41,703,000	43,856,000	2,153,000	5.2
12.0 Personnel benefits	9,164,000	9,744,000	580,000	6.3
12.2 Military personnel benefits	858,000	890,000	32,000	3.7
13.0 Benefits for former personnel	0	0	0	0.0
Subtotal, Pay Costs	51,725,000	54,490,000	2,765,000	5.3
21.0 Travel and transportation of persons	1,463,000	1,359,000	(104,000)	-7.1
22.0 Transportation of things	93,000	93,000	0	0.0
23.1 Rental payments to GSA	0	0	0	0.0
23.2 Rental payments to others	29,000	29,000	0	0.0
23.3 Communications, utilities and miscellaneous charges	734,000	726,000	(8,000)	-1.1
24.0 Printing and reproduction	1,016,000	911,000	(105,000)	-10.3
25.1 Consulting services	2,134,000	2,076,000	(58,000)	-2.7
25.2 Other services	9,766,000	9,542,000	(224,000)	-2.3
25.3 Purchase of goods and services from government accounts	106,489,000	106,460,000	(29,000)	0.0
25.4 Operation and maintenance of facilities	1,071,000	1,066,000	(5,000)	-0.5
25.5 Research and development contracts	60,111,000	60,104,000	(7,000)	0.0
25.6 Medical care	110,000	111,000	1,000	0.9
25.7 Operation and maintenance of equipment	1,025,000	1,035,000	10,000	1.0
25.8 Subsistence and support of persons	0	0	0	0.0
25.0 Subtotal, Other Contractual Services	180,706,000	180,394,000	(312,000)	-0.2
26.0 Supplies and materials	4,254,000	4,126,000	(128,000)	-3.0
31.0 Equipment	3,377,000	3,384,000	7,000	0.2
32.0 Land and structures	40,000	41,000	1,000	2.5
33.0 Investments and loans	0	0	0	0.0
41.0 Grants, subsidies and contributions	757,258,000	756,114,000	(1,144,000)	-0.2
42.0 Insurance claims and indemnities	0	0	0	0.0
43.0 Interest and dividends	5,000	5,000	0	0.0
44.0 Refunds	0	0	0	0.0
Subtotal, Non-Pay Costs	948,975,000	947,182,000	(1,793,000)	-0.2
Total Budget Authority by Object	1,000,700,000	1,001,672,000	972,000	0.1

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research

**NATIONAL INSTITUTES OF HEALTH
National Institute on Drug Abuse**

Salaries and Expenses

OBJECT CLASSES	FY 2008 Enacted	FY 2009 Estimate	Increase or Decrease
Personnel Compensation:			
Full-time permanent (11.1)	\$27,308,000	\$28,786,000	\$1,478,000
Other than full-time permanent (11.3)	8,973,000	9,443,000	470,000
Other personnel compensation (11.5)	1,382,000	1,444,000	62,000
Military personnel (11.7)	1,545,000	1,615,000	70,000
Special personnel services payments (11.8)	2,495,000	2,568,000	73,000
Total Personnel Compensation (11.9)	41,703,000	43,856,000	2,153,000
Civilian personnel benefits (12.1)	9,164,000	9,744,000	580,000
Military personnel benefits (12.2)	858,000	890,000	32,000
Benefits to former personnel (13.0)	0	0	0
Subtotal, Pay Costs	51,725,000	54,490,000	2,765,000
Travel (21.0)	1,463,000	1,359,000	(104,000)
Transportation of things (22.0)	93,000	93,000	0
Rental payments to others (23.2)	29,000	29,000	0
Communications, utilities and miscellaneous charges (23.3)	735,000	727,000	(8,000)
Printing and reproduction (24.0)	1,016,000	911,000	(105,000)
Other Contractual Services:			
Advisory and assistance services (25.1)	2,094,000	2,035,000	(59,000)
Other services (25.2)	9,764,000	9,542,000	(222,000)
Purchases from government accounts (25.3)	33,486,000	32,996,000	(490,000)
Operation and maintenance of facilities (25.4)	101,000	96,000	(5,000)
Operation and maintenance of equipment (25.7)	1,025,000	1,035,000	10,000
Subsistence and support of persons (25.8)	0	0	0
Subtotal Other Contractual Services	46,470,000	45,704,000	(766,000)
Supplies and materials (26.0)	4,254,000	4,126,000	(128,000)
Subtotal, Non-Pay Costs	54,060,000	52,949,000	(1,111,000)
Total, Administrative Costs	105,785,000	107,439,000	1,654,000

**NATIONAL INSTITUTES OF HEALTH
National Institute on Drug Abuse**

Authorizing Legislation

	PHS Act/ Other Citation	U.S. Code Citation	2007 Amount Authorized	FY 2008 Enacted	2008 Amount Authorized	FY 2009 Budget Estimate
Research and Investigation	Section 301	42§241	Indefinite	\$1,000,700,000	Indefinite	\$1,001,672,000
National Institute on Drug Abuse	Section 402(a)	42§281	Indefinite		Indefinite	
Total, Budget Authority				1,000,700,000		1,001,672,000

**NATIONAL INSTITUTES OF HEALTH
National Institute on Drug Abuse**

Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation ^{1/}
2000	429,246,000 ^{2/}	656,551,000	682,536,000	689,448,000
Rescission				(3,667,000)
2001	496,294,000 ^{2/}	788,201,000	789,038,000	781,327,000
Rescission				(331,000)
2002	907,369,000 ^{2/}	900,389,000	902,000,000	888,105,000
Rescission				(372,000)
2003	960,582,000	968,013,000	968,013,000	968,013,000
Rescission				(6,292,000)
2004	995,614,000	995,614,000	997,614,000	997,414,000
Rescission				(6,461,000)
2005	1,019,060,000	1,019,060,000	1,026,200,000	1,014,760,000
Rescission				(8,341,000)
2006	1,010,130,000	1,010,130,000	1,035,167,000	1,010,130,000
Rescission				(10,101,000)
2007	994,829,000	994,829,000	1,000,342,000	1,000,621,000
2008	1,000,365,000	1,015,559,000	1,022,594,000	1,018,493,000
Rescission				(17,793,000)
2009	1,001,672,000			

^{1/} Reflects enacted supplementals, rescissions, and reappropriations.

^{2/} Excludes funds for HIV/AIDS research activities consolidated in the NIH Office of AIDS Research.

**NATIONAL INSTITUTES OF HEALTH
National Institute on Drug Abuse**

Details of Full-Time Equivalent Employment (FTEs)

OFFICE/DIVISION	FY 2007 Actual	FY 2008 Enacted	FY 2009 Estimate
Office of the Director	23	24	24
Office of Extramural Affairs	17	18	18
Office of Planning and Resource Management	59	59	59
Office of Science Policy and Communications	31	32	31
Division of Epidemiology, Services & Prevention Research	28	28	29
Division of Basic Neurosciences & Behavioral Research	28	28	29
Division of Pharmacotherapies & Medical Consequences of Drug Abuse	34	34	34
Center for the Clinical Trials Network	13	14	14
Division of Clinical Neurosciences and Behavioral Research	15	15	16
Intramural Research Program	123	123	124
Total	371	375	378
Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research			
FTEs supported by funds from Cooperative Research and Development Agreements			
	(0)	(0)	(0)
FISCAL YEAR	Average GM/GS Grade		
2005	12.7		
2006	12.5		
2007	12.6		
2008	12.6		
2009	12.6		

**NATIONAL INSTITUTES OF HEALTH
National Institute on Drug Abuse**

Detail of Positions

GRADE	FY 2007 Actual	FY 2008 Enacted	FY 2009 Estimate
Total, ES Positions	0	1	1
Total, ES Salary	0	0	0
GM/GS-15	62	62	62
GM/GS-14	82	82	82
GM/GS-13	51	51	51
GS-12	44	44	44
GS-11	9	9	9
GS-10	1	1	1
GS-9	16	16	16
GS-8	9	9	9
GS-7	10	10	10
GS-6	3	3	3
GS-5	3	3	3
GS-4	1	1	1
GS-3	0	0	0
GS-2	2	2	2
GS-1	1	1	1
Subtotal	294	294	294
Grades established by Act of July 1, 1944 (42 U.S.C. 207):			
Assistant Surgeon General	0	0	0
Director Grade	9	9	9
Senior Grade	2	2	2
Full Grade	1	1	1
Senior Assistant Grade	0	0	0
Assistant Grade	0	0	0
Subtotal	12	12	12
Ungraded	24	24	24
Total permanent positions	302	302	302
Total positions, end of year	389	375	378
Total full-time equivalent (FTE) employment, end of year	371	375	378
Average ES salary	0	151,000	155,379
Average GM/GS grade	13	13	13
Average GM/GS salary	97,865	102,259	105,224

Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research.

**NATIONAL INSTITUTES OF HEALTH
National Institute on Drug Abuse**

New Positions Requested

	FY 2009		
	Grade	Number	Annual Salary
Health Science Administrator	13/14	3	\$82,079
Total Requested		3	