

DEPARTMENT OF HEALTH AND HUMAN SERVICES

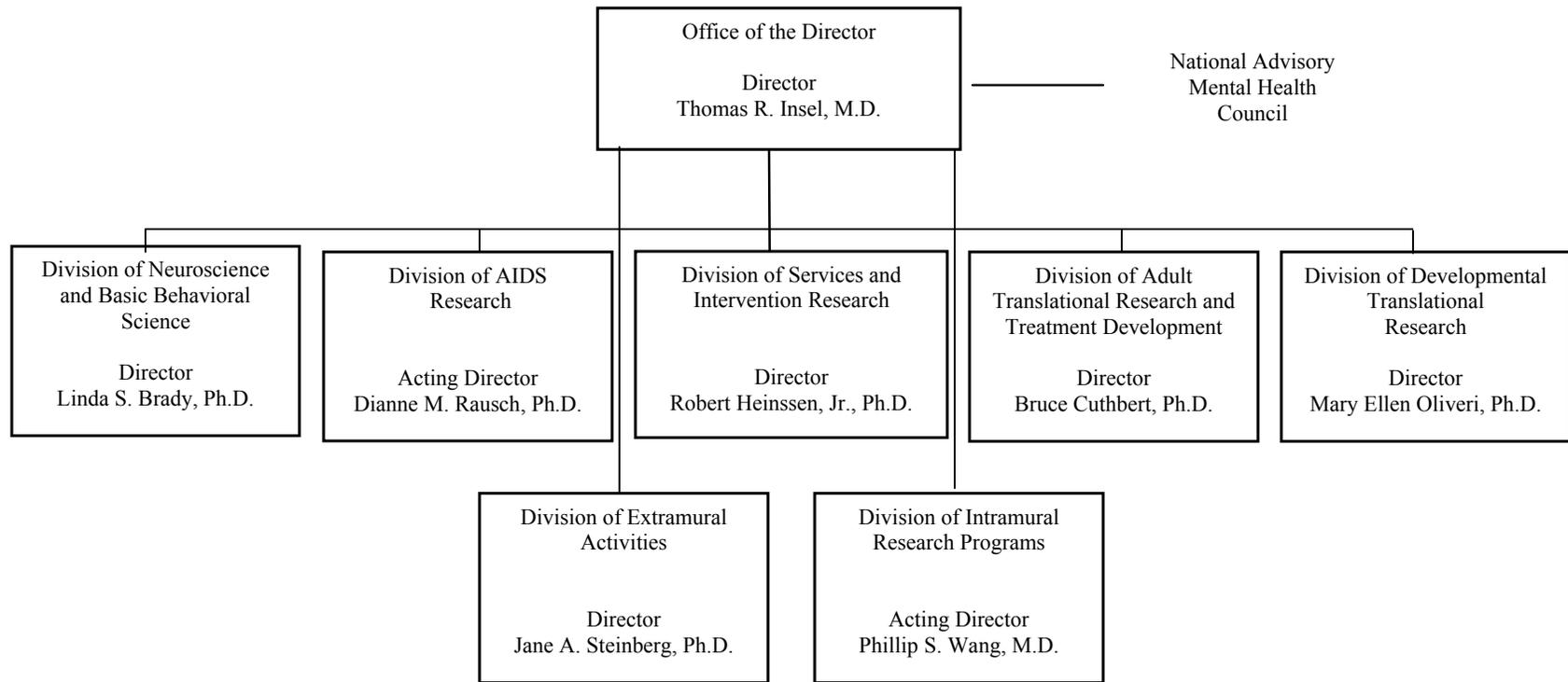
NATIONAL INSTITUTES OF HEALTH

National Institute of Mental Health (NIMH)

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DEPARTMENT OF HEALTH AND HUMAN SERVICES

**National Institutes of Health
National Institute of Mental Health**



NATIONAL INSTITUTES OF HEALTH

National Institute of Mental Health

For carrying out section 301 and title IV of the PHS Act with respect to mental health,
[\$1,483,068,000] \$1,479,204,000. (*Department of Health and Human Services Appropriations
Act, 2012.*)

**NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health**

Amounts Available for Obligation ¹
(Dollars in Thousands)

Source of Funding	FY 2011 Actual	FY 2012 Enacted	FY 2013 PB
Appropriation	1,489,372	1,483,068	1,479,204
Type 1 Diabetes	0	0	0
Rescission	(13,079)	(2,803)	0
Supplemental	0	0	0
Subtotal, adjusted appropriation	1,476,293	1,480,265	1,479,204
Real transfer under Secretary's transfer authority	0	(422)	0
Real transfer from DHHS for Autism	998	0	0
Comparative Transfers for NCATS reorganization	0	0	0
Comparative Transfers to NCATS for Therapeutics and Rare and Neglected Diseases (TRND)	(1,215)	0	0
Comparative Transfers to NLM for NCBI and Public Access	(1,267)	(1,340)	0
Subtotal, adjusted budget authority	1,474,809	1,478,503	1,479,204
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	0	0	0
Subtotal, adjusted budget authority	1,474,809	1,478,503	1,479,204
Unobligated balance lapsing	(35)	0	0
Total obligations	1,474,774	1,478,503	1,479,204

¹ Excludes the following amounts for reimbursable activities carried out by this account:
FY 2011 - \$15,032 FY 2012 - \$20,100 FY 2013 - \$20,100

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health
Budget Mechanism - Total ^{1/}
(Dollars in Thousands)

MECHANISM	FY 2011 Actual		FY 2012 Enacted		FY 2013 PB		Change vs. FY 2012	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Research Grants								
<u>Research Projects</u>								
Noncompeting	1,565	\$682,950	1,526	\$662,118	1,503	\$629,708	(23)	(\$32,410)
Administrative Supplements	39	15,370	40	15,000	40	15,000	0	0
Competing:								
Renewal	73	34,250	83	39,102	91	41,793	8	2,691
New	385	146,682	439	167,461	490	185,568	51	18,107
Supplements	7	2,103	9	2,401	9	2,566	0	165
Subtotal, Competing	465	\$183,035	531	\$208,964	590	\$229,927	59	\$20,963
Subtotal, RPGs	2,030	\$881,355	2,057	\$886,082	2,093	\$874,635	36	(\$11,447)
SBIR/STTR	94	\$34,258	103	\$36,514	107	\$37,667	4	\$1,153
Research Project Grants	2,124	\$915,613	2,160	\$922,596	2,200	\$912,302	40	(\$10,294)
<u>Research Centers</u>								
Specialized/Comprehensive	63	\$108,453	65	\$107,453	65	\$107,507	0	\$54
Clinical Research	0	0	0	0	0	0	0	0
Biotechnology	0	0	0	500	0	500	0	0
Comparative Medicine	0	0	0	500	0	500	0	0
Research Centers in Minority Institutions	0	0	0	0	0	0	0	0
Research Centers	63	\$108,453	65	\$108,453	65	\$108,507	0	\$54
<u>Other Research</u>								
Research Careers	382	\$60,397	382	\$60,397	382	\$60,427	0	\$30
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	98	29,001	102	29,001	102	29,016	0	15
Other Research	480	\$89,398	484	\$89,398	484	\$89,443	0	\$45
Total Research Grants	2,667	\$1,113,464	2,709	\$1,120,447	2,749	\$1,110,252	40	(\$10,195)
<u>Research Training</u>								
Individual Awards	255	\$10,003	252	\$10,003	249	\$10,008	(3)	\$5
Institutional Awards	665	31,359	655	31,359	647	31,375	(8)	16
Total Research Training	920	\$41,362	907	\$41,362	896	\$41,383	(11)	\$21
<u>Research & Development Contracts</u>								
<i>SBIR/STTR</i>	146	\$75,964	145	\$77,072	145	\$87,144	0	\$10,072
	<i>0</i>	<i>\$51</i>	<i>0</i>	<i>\$51</i>	<i>0</i>	<i>\$51</i>	<i>0</i>	<i>\$0</i>
<u>FTEs</u>								
Intramural Research	366	\$169,868	366	\$166,471	363	\$166,990	(3)	\$519
Research Management and Support	243	74,151	243	73,151	240	73,435	(3)	284
Construction		0		0		0		0
Buildings and Facilities		0		0		0		0
Total, NIMH	609	\$1,474,809	609	\$1,478,503	603	\$1,479,204	(6)	\$701

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

Major Changes in the Fiscal Year 2013 President's 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 2013 budget request for NIMH, which is \$.701 million over the FY 2012 level, for a total of \$1,479.204 million.

Research Project Grants (RPGs) (-\$10.294 million; total \$912.302 million): NIMH will fund 590 competing RPGs in FY 2013, an increase of 59 over FY 2012. About 1,503 noncompeting RPG awards, totaling \$629.708 million, also will be made in FY 2013. NIH budget policy for RPGs in FY 2013 discontinues inflationary allowances and reduces the average cost of noncompeting and competing RPGs by one percent below the FY 2012 level.

Adult Translational Research and Treatment Development Program (-\$0.017 million; total \$260.852 million): Achieving rapid, substantial reductions in the rate of suicide in the United States requires strategic targeting of effective interventions for subgroups of individuals at highest risk. NIMH will address this issue with a multi-pronged initiative that will: (1) identify the most efficient classification of at-risk groups through studying Federal suicide data; (2) develop statistical models to estimate the number of lives that could be saved if specific evidence-based interventions were implemented in particular care systems for these groups; (3) define the timeframes for delivering different interventions in different service settings and create models of accountability for outcomes; and, (4) develop new suicide prevention interventions.

Services and Intervention Research Program (-\$0.010 million; total \$165.665 million): Advances in health technologies continue to move at an exponential rate, greatly altering the way we communicate, seek information, and receive services. These technologies are aimed at transforming mental health care and enabling providers to more rapidly and accurately assess patients' biological processes, disease states, behavior, attitudes, and the environment. However, little is known about the effectiveness of these technological delivery systems. NIMH will support research that tests the utility of new technologies to significantly affect the mental health of large populations. The Institute will also support research that harnesses the power of health information technology to improve the access, engagement, quality, and outcomes associated with mental health services.

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health
Summary of Changes
(Dollars in Thousands)

FY 2012 Enacted				\$1,478,503
FY 2013 President's Budget				\$1,479,204
Net change				\$701
CHANGES	2013 President's Budget		Change from FY 2012	
	FTEs	Budget Authority	FTEs	Budget Authority
A. Built-in:				
1. Intramural Research:				
a. Annualization of January 2012 pay increase & benefits		\$62,965		\$1
b. January FY 2013 pay increase & benefits		62,965		193
c. One more day of pay		62,965		242
d. Annualization of PY net hires		62,965		0
e. Payment for centrally furnished services		30,561		0
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		73,464		0
Subtotal				\$436
2. Research Management and Support:				
a. Annualization of January 2012 pay increase & benefits		\$35,861		\$0
b. January FY 2013 pay increase & benefits		35,861		108
c. One more day of pay		35,861		138
d. Annualization of PY net hires		35,861		0
e. Payment for centrally furnished services		10,917		0
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		26,657		0
Subtotal				\$247
Subtotal, Built-in				\$683

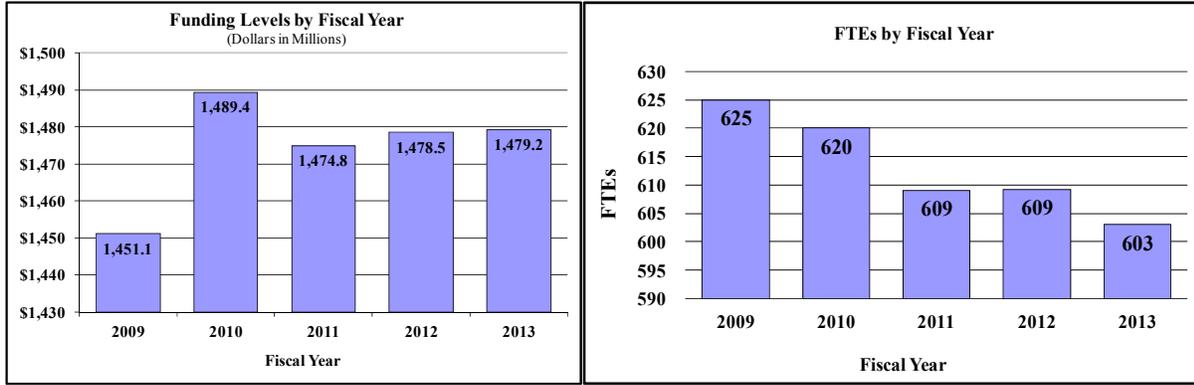
NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health

Summary of Changes—continued

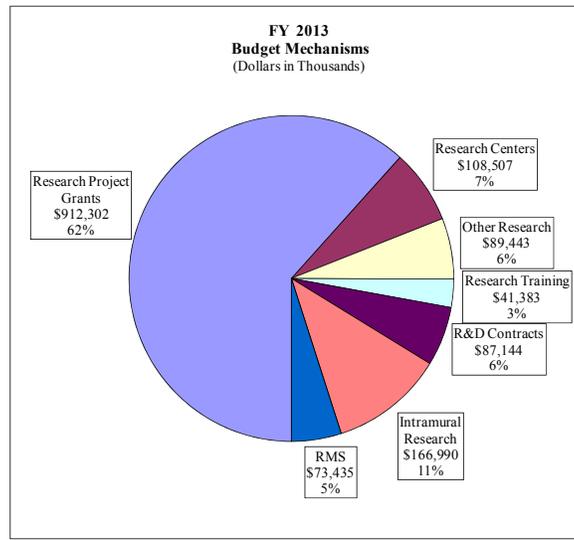
CHANGES	2013 President's Budget		Change from FY 2012	
	No.	Amount	No.	Amount
B. Program:				
1. Research Project Grants:				
a. Noncompeting	1,503	\$644,708	(23)	(\$32,410)
b. Competing	590	229,927	59	20,963
c. SBIR/STTR	107	37,667	4	1,153
Total	2,200	\$912,302	40	(\$10,294)
2. Research Centers	65	\$108,507	0	\$54
3. Other Research	484	89,443	0	45
4. Research Training	896	41,383	(11)	21
5. Research and development contracts	145	87,144	0	10,072
Subtotal, Extramural		\$1,238,779		(\$102)
6. Intramural Research	<u>FTEs</u> 363	\$166,990	<u>FTEs</u> (3)	\$83
7. Research Management and Support	240	73,435	(3)	37
8. Construction		0		0
9. Buildings and Facilities		0		0
Subtotal, program	603	\$1,479,204	(6)	\$18
Total changes				\$701

Fiscal Year 2013 Budget Graphs

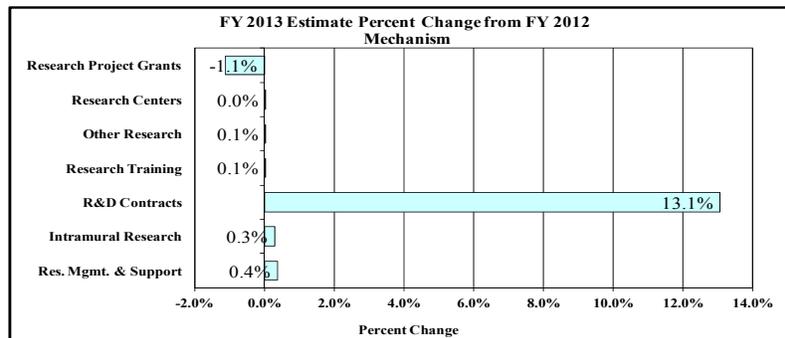
History of Budget Authority and FTEs:



Distribution by Mechanism:



Change by Selected Mechanisms:



NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health
Budget Authority by Activity
(Dollars in Thousands)

	FY 2011 Actual		FY 2012 Enacted		FY 2013 PB		Change vs. FY 2012 Enacted	
	FTEs	Amount	FTEs	Amount	FTEs	Amount	FTEs	Amount
Extramural Research								
<u>Detail:</u>								
Neuroscience & Basic Behavioral Science		469,854		472,899		472,870		(29)
Developmental Translational Research		159,093		160,135		160,125		(10)
Adult Translational Research & Treatment Development		259,171		260,869		260,852		(17)
Services & Intervention Research		164,597		165,675		165,665		(10)
AIDS Research		178,075		179,303		179,267		(36)
Subtotal, Extramural		\$1,230,790		\$1,238,881		\$1,238,779		(\$102)
Intramural Research	366	\$169,868	366	\$166,471	363	\$166,990	(3)	\$519
Research Management & Support	243	\$74,151	243	\$73,151	240	\$73,435	(3)	\$284
TOTAL	609	\$1,474,809	609	\$1,478,503	603	\$1,479,204	(6)	\$701

1. Includes FTEs which are reimbursed from the NIH Common Fund.

2. Includes Real Transfers and Comparable Adjustments as detailed in the "Amounts Available for Obligation" table.

**NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health**

Authorizing Legislation

	PHS Act/ Other Citation	U.S. Code Citation	2012 Amount Authorized	FY 2012 Enacted	2013 Amount Authorized	FY 2013 PB
Research and Investigation	Section 301	42§241	Indefinite	} \$1,478,503,000	Indefinite	} \$1,479,204,000
National Institute of Mental Health	Section 401(a)	42§281	Indefinite		Indefinite	
Total, Budget Authority				\$1,478,503,000		\$1,479,204,000

**NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health**

Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
2004	\$1,382,114,000	\$1,382,114,000	\$1,391,114,000	\$1,390,714,000
Rescission				(\$8,940,000)
2005	\$1,420,609,000	\$1,420,609,000	\$1,436,800,000	\$1,423,609,000
Rescission				(\$11,676,000)
2006	\$1,417,692,000	\$1,417,692,000	\$1,460,393,000	\$1,417,692,000
Rescission				(\$14,177,000)
2007	\$1,394,806,000	\$1,394,806,000	\$1,403,551,000	\$1,404,494,000
Rescission				\$0
2008	\$1,405,421,000	\$1,425,531,000	\$1,436,001,000	\$1,429,466,000
Rescission				(\$24,973,000)
Supplemental				\$7,475,000
2009	\$1,406,841,000	\$1,455,145,000	\$1,445,987,000	\$1,450,491,000
Rescission				\$0
2010	\$1,474,676,000	\$1,502,266,000	\$1,475,190,000	\$1,489,372,000
Rescission				\$0
2011	\$1,540,345,000		\$1,537,942,000	\$1,489,372,000
Rescission				(\$13,078,800)
2012	\$1,517,006,000	\$1,517,006,000	\$1,460,671,000	\$1,483,068,000
Rescission				(\$2,802,999)
2013	\$1,479,204,000			

Justification of Budget Request

National Institute of Mental Health

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

Budget Authority:

	FY 2011 Actual	FY 2012 Enacted	FY 2013 President's Budget	FY 2013 + / - FY 2012
BA	\$1,474,809,000	\$1,478,503,000	\$1,479,204,000	+\$701,000
FTE	609	609	603	-6

Program funds are allocated as follows: Competitive Grants/Cooperative Agreements; Contracts; Direct Federal/Intramural and Other.

Director's Overview

The National Institute of Mental Health (NIMH) is the lead Federal agency for research on mental and behavioral disorders, with a mission to transform the understanding and treatment of mental illnesses through basic and clinical research.

The burden of mental illness in the United States is enormous. In a given year, an estimated 11 million American adults (approximately 5 percent of all adults) suffer from a seriously disabling mental illness.¹ Mental disorders are the leading cause of disability in the United States and Canada, accounting for 24 percent of all years of life lost to disability and premature mortality (Disability Adjusted Life Years or DALYs).² Suicide is the 10th leading cause of death in the United States, accounting for the loss of more than 36,000 American lives each year, more than double than the number of lives lost to homicide.³ The costs associated with these disorders are tremendous. A cautious estimate places the direct and indirect financial costs associated with mental illness in the U.S. at well over \$300 billion annually, and it ranks as the third most costly medical condition in terms of overall health care expenditure, behind only heart conditions and traumatic injury.^{4,5} Even more concerning, the projected burden of illness for mental disorders is charted for a sharp increase, not a decrease, over the next 20 years.⁶

¹ Substance Abuse and Mental Health Services Administration. *Results from the 2009 National Survey on Drug Use and Health: Mental Health Findings* (Office of Applied Studies, NSDUH Series H-39, HHS Publication No. SMA 10-4609). Rockville, MD: Substance Abuse and Mental Health Services Administration, 2010.

² The World Health Organization. *The global burden of disease: 2004 update*, Table A2: Burden of disease in DALYs by cause, sex and income group in WHO regions, estimates for 2004. Geneva, Switzerland: WHO, 2008.

³ Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS): [Hwww.cdc.gov/ncipc/wisqars](http://www.cdc.gov/ncipc/wisqars)H accessed November 2011.

⁴ Insel TR. Assessing the economic cost of serious mental illness. *Am J Psychiatry*. 2008 Jun;165(6):663-5.

⁵ Soni A. *The Five Most Costly Conditions, 1996 and 2006: Estimates for the U.S. Civilian Noninstitutionalized Population*. Statistical Brief #248. July 2009. Agency for Healthcare Research and Quality, Rockville, MD.

⁶ Bloom DE, Cafiero ET, Jané-Llopis E, Abrahams-Gessel S, Bloom LR, Fathima S, Feigl AB, Gaziano T, Mowafi M, Pandya A, Prettner K, Rosenberg L, Seligman B, Stein A, Weinstein C. *The Global Economic Burden of Non-communicable Diseases*. Geneva, Switzerland: World Economic Forum, 2011.

Schizophrenia, bipolar disorder, depression, autism spectrum disorder, post-traumatic stress disorder, eating disorders, borderline personality disorder, and other disorders are serious, life-threatening illnesses. Improved diagnostic tests, new, more effective treatments, and better prevention strategies would help to reverse the current burden of illness trends. These innovations require a solid foundation formed on rigorous scientific research, and, guided by its strategic plan, NIMH is well positioned to accelerate the research needed to build this foundation. To advance these goals, NIMH will support research initiatives in fiscal year (FY) 2013 that build upon and expand our knowledge from basic brain and behavioral research and use these findings as the basis for developing innovative treatments that pave the way toward prevention, recovery, and cure.

Theme 1: Investing in Basic Research

While NIMH's ultimate goal is to improve public health, the first step toward this goal lies in conducting basic research. This research is focused on understanding the most fundamental aspects of human biology, at the molecular, cellular, and circuit levels. We have witnessed exciting progress over the past decade in brain research. However, we have barely scratched the surface of knowledge about the human body's most complex organ. In FY 2013, NIMH will support an initiative that explores the brain mechanisms underlying observed sex differences that are associated with risk and resilience for mental illness. Extensive research has shown that an individual's sex can influence susceptibility, prevalence, and age of onset for mental illness. For example, disorders that emerge early in development (e.g., autism spectrum disorder, attention deficit hyperactivity disorder) tend to be more prevalent in males, while disorders that emerge later (e.g., depression and anxiety) are more prevalent in females. Very little is known, however, about the precise timing, brain circuitry, or mechanisms that underlie the expression of these differences. Research supported by this initiative will provide important information on how interactions between sex chromosomes, steroid hormones, and the environment shape sex differences in the brain and behavior, and will lay the foundation to develop improved, more personalized interventions for members of both sexes.

Theme 2: Accelerating Discovery Through Technology

In order to speed advancements in basic research, NIMH is committed to fostering the development and adaptation of revolutionary technologies. Over the past decade the technology used in genomics research, for example, has advanced at an astounding pace. The opportunities that such advances present are unprecedented, allowing NIMH-funded scientists to make exciting new discoveries. One new need for technology involves better tools for identifying the many types of cells in the brain. In FY 2013, NIMH will support the development of cutting-edge technologies for research on astrocytes. Often overlooked, astrocytes are brain cells that support and protect neurons. Recent advances indicate that astrocytes play a role in regulating the formation and function of synapses - the cell structures that enable neurons to signal other cells. Emerging evidence suggests that dysfunction in astrocytes may be linked to certain mental disorders, including schizophrenia and autism spectrum disorder. Despite important research questions, barriers exist to studying astrocytes due to the scarcity of rigorous, scientific tools to identify, and target astrocytes. By stimulating the field to develop new research resources, this initiative aims to transform astrocyte research, laying the foundation for new discoveries and promoting new ideas and opportunities for tomorrow's treatments.

Theme 3: Advancing Translational Sciences

NIMH's next step toward improving public health involves harnessing the advances made through basic research and translating them into new and improved treatments and prevention strategies. Two strategies will be pursued in FY 2013. Based upon the growing ability to identify mental disorders earlier during their course, one NIMH strategy aims to intervene to avert psychosis and disability. The PREEMPT (Pathways of Risk and Early Experience – Mitigating Psychopathologic Trajectories) project will identify 10,000 children at high risk for mental illness and follow them to identify predictive biomarkers and targets for prevention. Early intervention for schizophrenia and mood disorders may yield a non-pharmacological approach to reducing the disability and mortality associated with these severe illnesses. The second strategy develops better treatments when prevention is either not effective or possible. Current medications reduce symptoms but are not sufficient for recovery in most cases. Unfortunately, over the past few years most pharmaceutical companies moved away from research and development of new medications for mental illness, reducing the hope of discovering more effective medications. To catalyze the development of the next generation of medications, NIMH will launch NEx MedS (Network for Experimental Medicine Studies) to create a network of centers for rapid early phase testing of promising compounds for serious mental illness and autism. This effort will be integrated with the Research Domain Criteria (RDoC) project in which NIMH is transforming diagnosis and identifying new targets for treatment.

Theme 4: Encouraging New Investigators and New Ideas

Fundamental discoveries and their translation to treatments will only take place if we invest in a well-trained workforce of innovators. NIMH remains committed to ensuring that the next generation of diverse researchers is fully trained and ready to take up the mantle of this important challenge. NIMH's Biobehavioral Research Awards for Innovative New Scientists (BRAINS) have fostered this goal by supporting the research and career development of outstanding early career scientists who study topics relevant to the Institute. These generous awards, modeled on the NIH New Innovator Awards, have supported cutting-edge research projects from young scientists that address key gap areas outlined in NIMH's Strategic Plan. NIMH also supports an initiative that develops collaborative hubs to improve the research base for conducting mental health interventions around the world. Key components of this effort are the research training and career development of individuals who show outstanding potential for making significant contributions as mental health researchers.

Overall Budget Policy: The FY 2013 President's Budget request for NIMH is \$1,479.204 million, an increase of \$0.701 million, or 0.05 percent over the FY 2012 Enacted Level. NIMH will continue to maintain competing RPGs in order to further the research priorities of the NIMH Strategic Plan. In accordance with NIH policy, non-competing RPGs will receive an overall reduction of -1 percent below the FY 2012 level. NIMH is providing for no out-year inflationary increases for non-competing and competing grants awarded in FY 2013. This follows upon no inflationary increase for competing grants in FY 2012, in order to maintain higher levels of competing RPGs. In FY 2013, NIMH will support new investigators on R01 equivalent awards at success rates equivalent to those of established investigators submitting new R01 equivalent applications. NIMH will provide an increase in FY 2013 of two percent for stipend levels under

the Ruth L. Kirschstein National Research Service Award (NRSA) training program. This builds on the two percent increase in stipend levels for FY 2012. The requested increase will help to sustain the development of a highly qualified biomedical research workforce. In addition, NIMH has targeted a portion of the funds available for competing research project grants to support high priority projects outside of the payline, including awards to new and early stage investigators. Increases to Research Management and Support will provide for a modest program growth.

Funds are included in R&D contracts to support several trans-NIH initiatives, such as the Basic Behavioral and Social Sciences Opportunity Network (OppNet). Funds are included in Research Management and Support (RMS) to support activities of the Interagency Autism Coordinating Committee.

Program Descriptions and Accomplishments

Neuroscience and Basic Behavioral Science

The Division of Neuroscience and Basic Behavioral Science provides support for research in the areas of basic neuroscience, genetics, basic behavioral science, research training, resource development, technology development, drug discovery, and research dissemination. In cooperation with other NIMH programs and the wider research community, this program ensures that relevant basic scientific knowledge is generated and used to improve diagnosis, treatment, and prevention of mental and behavioral disorders.

Many mental disorders are first diagnosed in adolescents or young adults, indicating that these mental disorders may be disorders of brain development. Understanding the normal trajectory of brain development and the genes that shape the involved processes is critical for identifying if, when, and how development diverges from the usual course in mental disorders. The Division continues to support the creation of an atlas of gene activity during development of the human brain. The atlas, which has already released data via a public website, serves as a valuable resource for researchers to relate patterns of gene activity to processes of human brain development. The Division also supports important projects such as the investigation to understand the genetics of brain development. This effort includes collecting behavioral and genetic data on 10,000 children, teens, and young adults. This rich new data resource will allow researchers to study links between brain development, genetics, and behavior more comprehensively than ever before.

Budget Policy: The FY 2013 President's Budget request for this program is \$472.870 million, a decrease of \$0.029 million or 0.01 percent below FY 2012 Enacted level. Priority will be given to projects that seek to understand the biological functions of genes, gene products, cells, and brain circuits in normal and abnormal mental function. Program plans include research to identify biological markers (e.g., genetic, proteomic, imaging) in model systems and humans that could be further validated as methods for diagnosing and detecting risk, onset, progress, and severity of mental disorders. High priority projects also include those that identify in diverse populations (from the U.S. and around the world) genetic variants, epigenetic mechanisms, and gene-environment interactions that influence vulnerability to mental disorders and treatment

response. In addition, NIMH will continue to support studies to identify and validate new molecular targets and tools for drug discovery relevant to the treatment of mental disorders.

Developmental Translational Research

The Division of Developmental Translational Research stimulates and promotes an integrated program of research across basic behavioral and psychological processes, environmental processes, brain development, genetics, developmental psychopathology, and therapeutic interventions. The Division's mission is to translate findings from basic research into an improved understanding of the developmental origins and trajectories of mental disorders, with the ultimate goal of preventing and curing mental disorders that begin in childhood and adolescence.

For example, in FY 2011, the Division continued to fund a research project aimed at uncovering the neurobiological mechanisms that place children of depressed parents at increased risk for depression themselves. The research team demonstrated that girls at high risk for depression (because their mothers experienced recurrent major depression) showed distinctly different patterns of brain processing during tasks related to anticipating and processing reward and loss, in comparison with girls at low risk. This project also is examining whether brain processing and structural differences can predict the likelihood of later developing depression, an essential first step toward developing pre-emptive interventions. In FY 2011, the Division also issued a funding initiative, "Translational Research for the Development of Novel Interventions in Mental Disorders," to support pilot studies of innovative and novel intervention approaches that are based on emerging evidence of the biological and behavioral mechanisms involved in mental disorders. The goal of this research is to facilitate more rapidly the translation of basic behavioral and neuroscience research findings into treatment development.

Budget Policy: The FY 2013 President's Budget request for this program is \$160.125 million, a decrease of \$0.010 million or 0.01 percent below FY 2012 Enacted level. Priority will be given to studies that delineate the neurobehavioral mechanisms responsible for the development of mental disorders, including the identification of critical and sensitive periods in brain development and the effects of behavior and experience on brain function. In FY 2013, NIMH will also support research that speeds the translation of emerging findings from neuroscience into novel treatment approaches, as well as research that identifies the trajectories of brain, cognitive and emotional development in children at risk for serious mental disorders so that earlier interventions may be developed to prevent the onset of disease.

Program Portrait: Advancing Research on Autism Spectrum Disorder

FY 2012 Level: \$90.5 million
FY 2013 Level: 91.1 million
Difference: +0.6 million

Researchers, clinicians, and families all agree that autism spectrum disorder (ASD) is a public health challenge, with extensive financial and societal costs. NIH research funding for ASD has increased over the past decade. The Interagency Autism Coordinating Committee's (IACC's) Strategic Plan for Autism Spectrum Disorder Research, first released in January 2009 and updated annually thereafter, provides a blueprint to guide federal efforts in ASD research. Several NIH initiatives address the research objectives outlined in the Plan, and two examples are highlighted below:

There are many hypotheses for why some children with ASD never learn to speak. To address this under-studied population, NIH convened a workshop focused on the subgroup of children with ASD who have not developed functional verbal language by age five. The workshop identified research gaps and opportunities, leading to a funding opportunity announcement (FOA) that allows currently funded investigators to submit proposals that expand their ongoing research to include non-verbal school-aged children with ASD. Four awards were made in FY 2012 aimed at understanding the developmental trajectories of minimally verbal children with ASD, improving and adapting current interventions for this population, and developing novel methods to more accurately assess and identify this subgroup.

NIH will continue support for its Autism Centers of Excellence (ACE) program and initiated the process to re-compete grant applications for the next phase of funding in FY 2012 and FY 2013. ACE Centers will focus on interdisciplinary collaborations of basic and clinical science to address major questions about ASD. ACE Networks will comprise one or more collaborative multi-site projects of studies such as clinical trials of pharmacological treatments, behavioral interventions, or multi-site epidemiologic studies of ASD risk factors.

Adult Translational Research and Treatment Development

The Division of Adult Transitional Research and Treatment Development plans, supports, and administers programs of research, research training, and resource development aimed at understanding the biological, psychological, and functional changes that are involved in the causes and course of mental illness, and hastening the translation of scientific advances into innovations in clinical care for adults. The Division supports a broad research portfolio including research studies of the:

- risk factors for major psychiatric disorders;
- clinical neuroscience (to elucidate causes and functional effects of these disorders); and,
- psychosocial, pharmacological, and somatic treatment development.

In FY 2011, the Division implemented a clinical trials network to identify and evaluate interventions (either pharmacological treatments or devices) that provide rapid relief of the symptoms of major depression within 72 hours of administration. The Division also led the FY 2011 FOA titled “Optimizing Fidelity of Empirically-Supported Behavioral Treatments for Mental Disorders,” which supports new methods to measure the fidelity with which psychosocial and behavioral therapies are delivered, in order to ensure that adult patients receive an adequate “dose” of empirically proven treatments.

Budget Policy: The FY 2013 President’s Budget request for this program is \$260.852 million, a decrease of \$0.017 million or 0.01 percent below FY 2012 Enacted level. High priority will be given to studies that advance the understanding of the biological underpinnings of mental illness

and hasten the translation of behavioral science and neuroscience advances into innovations in clinical care. Program plans include the development of models to predict the treatment response and vulnerability to side effects of medications for mental disorders, and will support studies on the prevention or amelioration of treatment-related side effects. In FY 2013, the program will emphasize studies evaluating the safety and efficacy of novel pharmacological agents and behavioral interventions that target features of mental illness that are inadequately addressed by current therapies and prevention strategies.

Services and Intervention Research

The Division of Services and Intervention Research supports research to evaluate the effectiveness of pharmacological, psychosocial, rehabilitative, and combination interventions on mental and behavior disorders. The program evaluates interventions for children, adolescents, and adults, focusing on acute and long-term therapeutic effects. The Division also supports mental health services research including:

- services organization and delivery;
- interventions to improve the quality and outcomes of care; and
- research on the dissemination and implementation of evidence-based interventions into service settings.

In FY 2011, the Division launched an initiative titled “Improving Evidence-Based Mental Health Screening and Treatment for Persons with Mental Disorders in the Justice System.” Five grants have been awarded to test strategies for implementing effective mental health treatments and services in criminal justice, community re-entry, and jail diversion settings. These projects address unmet treatment needs of adults and juvenile offenders with depression, post-traumatic stress disorder (PTSD), and other serious mental illnesses (SMI). A related partnership with the Department of Justice’s Bureau of Justice Statistics (BJS) focuses on developing valid, reliable instruments for estimating the prevalence of mental disorders among adults in jails and prisons. An additional 16 new survey items, including a new screen for SMI, have been tested in the Connecticut Department of Correction. These items will be integrated into computerized survey modules in BJS’s annual survey of mental disorder prevalence in jails and prisons. National implementation of the survey is anticipated in early FY 2013.

Budget Policy: The FY 2013 President’s Budget request for this program is \$165.665 million, a decrease of \$0.010 million or 0.01 percent below FY 2012 Enacted level. High priority will be given to studies that develop innovative interventions, including treatment regimens, prevention strategies, and innovative service delivery approaches to reduce the prevalence and burden of mental disorders. Program plans further emphasize research that will personalize interventions for optimal use among diverse populations, including underserved groups, those with comorbid conditions, across geographic locations, and across age groups. In FY 2013, the program will also emphasize research that will reduce the burden and mortality associated with suicide. This area of emphasis includes studies on early detection, assessment, interventions, and services for individuals at risk for suicide, across populations and ages.

Program Portrait: Working Toward the Next Generation of Suicide Prevention Strategies

FY 2012 Level: \$22.6 million
FY 2013 Level: 22.7 million
Difference: +0.1 million

Suicide is the 10th leading cause of death in the United States, accounting for more than 36,000 deaths in 2009; more than twice the number of people killed by homicide. Among adults ages 18-65, suicide ranks as the 4th leading cause of death, behind only cancer, heart disease, and unintentional injuries. To combat this challenge, NIMH has been working on several projects designed to develop the next generation of suicide prevention strategies.

Not all segments of the population experience the same risk for suicide. One of the most notable and disturbing increases in suicide over the past decade has occurred among the nation's returning military veterans. To counter this trend, NIMH has partnered with the Department of the Army to conduct the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS) Project - the largest study of mental health risk and resilience ever conducted among military personnel. This project, a cooperative agreement led by NIMH, specifically is looking to identify factors related to risk for suicide among Army soldiers. NIMH is working with four major research institutions, and the project is well underway, with survey information already collected from more than 25,000 soldiers. The Army receives quarterly updates on the latest findings, with the intent to apply them to ongoing suicide prevention efforts as quickly as possible. Results from this project will contribute significantly to our understanding of risk and resilience associated with suicide, both within the Army and among the broader adult population.

NIMH is also taking a lead role with The National Action Alliance for Suicide Prevention, a public-private partnership tasked with developing the next National Strategy for Suicide Prevention. Alongside the Jed Foundation, NIMH is co-chairing the Action Alliance's Research Task Force (RTF), which is developing a research agenda to reduce suicide morbidity (attempts) and mortality (deaths) by at least 20 percent in five years, and 40 percent or more in 10 years if implemented fully. To achieve this goal, the RTF is conducting a review of public and private research portfolios, performing a targeted review of the research literature, statistically simulating the effects of potential interventions, and gathering input from more than 700 stakeholders through a multi-stage survey process. The RTF's national research agenda will be structured around a set of strategic goals addressing key issues in suicide prevention. Currently, the RTF is working with experts in the field to identify the short- and long-term actions needed to meet or exceed these goals.

AIDS Research

The Division of AIDS Research supports research and research training to develop and disseminate behavioral interventions that prevent HIV/AIDS transmission; clarify the biological, psychological, and functional mental health effects of HIV/AIDS infection; and, alleviate those effects among affected individuals.

Recent research advances in prevention using combined biomedical and behavioral approaches indicate the possible achievement of significant decreases in HIV incidence. NIMH will continue to foster the behavioral research that must be effectively integrated with biomedical approaches to achieve such decreases in incidence. NIMH is supporting two new FOAs to address these goals through expanded testing of novel interventions and improving strategies to maintain and optimize health outcomes. NIMH also continues to focus research on the neural mechanisms underlying HIV-related behavioral and cognitive impairments, and on the development of therapeutic strategies to treat these complications. Recent scientific advances have also spurred an increased effort to eliminate HIV in infected individuals, in order to achieve a total or functional cure. Since this would require elimination of the virus from biological

reservoirs such as the central nervous system (CNS), NIMH has been partnering with the National Institute of Allergy and Infectious Diseases to advance this eradication effort. In FY 2012, NIMH released an FOA to spur research on the eradication of the HIV virus from the CNS.

Budget Policy: The FY 2013 President's Budget request for this program is \$179.267 million, a decrease of \$0.036 million or 0.02 percent below FY 2012 Enacted level. FY 2013 program plans will emphasize innovative, interdisciplinary HIV prevention research designed to better understand individual, community, social, and structural factors that impact HIV risk-reduction in order to improve preventive behaviors. The program will further support innovative, interdisciplinary prevention science research that examines the psychosocial needs of children affected by AIDS, particularly children in low-resource settings. NIMH will support studies to assess the neurologic, neuropsychiatric, and neuropathologic consequences of HIV in the current therapeutic context, particularly in international and resource-poor settings, in order to develop new therapeutic interventions to prevent or reverse these complications.

Intramural Research Programs (IRP)

The IRP is the component of NIMH that directly conducts research, complementing the Institute's extramural program that provides grant funding to the research community outside of NIH. IRP scientists study brain function and behavior; conduct state-of-the-art research that complements extramural research activities; and provide an environment conducive to the training of clinical and basic scientists.

In FY 2011, the IRP researchers provided the first map of gene expression in the developing human brain. A study found that new neurons growing in the adult brain help buffer the effects of stress and may play a role in the development of depression. In another study, NIMH scientists traced the stress-buffering effect of exercise to a specific brain circuit, which is the first step toward developing new preventions and treatments for PTSD and other stress-related disorders. These IRP brain imaging studies have shown how development in specific areas of the adolescent brain correlates with learning how to distinguish threats from non-threats, giving further insight into adolescent behavior.

Budget Policy: The FY 2013 President's Budget request for these programs is \$166.990 million, an increase of \$0.519 million or 0.31 percent over FY 2012 Enacted level. Scientists in the IRP will continue with ongoing research efforts that address several of the objectives of the NIMH Strategic Plan, which range from studies of normal brain function (conducted at the behavioral systems, circuit, cellular, and molecular levels) to clinical and translational investigations into the diagnosis, treatment, and prevention of mental illness. The IRP will continue to encourage and support cross-disciplinary collaborative efforts in these areas. The IRP will also continue to implement the recommendations of the NIMH 2008 Blue Ribbon Panel on Intramural Research, which included recommendations for strategic recruitments in emerging areas of mental health research.

Research Management and Support (RMS)

The program provides administrative, budgetary, logistical, and scientific support in the review, award, and monitoring of research grants, training awards, and research and development

contracts. RMS functions include: strategic planning, coordination, and evaluation of the Institute's programs; regulatory compliance; international coordination; and, liaison with other federal agencies, Congress, and the public.

In FY 2011, the Institute oversaw 2,667 research grants, 378 training grants, and 146 research and development contracts. Moreover, in FY 2011, NIMH proactively conducted four large-scale internal risk management reviews to examine and assess the effectiveness of management controls in 11 major areas of responsibility. The purpose of the reviews was to identify any weaknesses and detect any potential fraud, waste, or abuse. NIMH has developed and is implementing corrective action plans to improve internal policies and procedures.

Budget Policy: The FY 2013 President's Budget request for RMS is \$73.435 million, an increase of \$0.284 million or 0.39 percent over FY 2012 Enacted level. RMS costs shall continue to be closely monitored since staff salaries and expenses account for almost half of all RMS costs. Efforts are currently underway to analyze workforce efficiency and productivity to insure that new staff and support contractors are aligned to high-priority areas. Controls are in place on travel and equipment purchases and on conference support.

Common Fund

NIMH and NHGRI are the lead institutes for the Molecular Libraries Roadmap Initiative supported through the NIH Common Fund. This initiative offers public-sector researchers access to high throughput screening (HTS) of libraries of small organic compounds that can be used as chemical probes to study the functions of genes, cells, and biological pathways. This powerful HTS technology provides novel approaches to explore the functions of major cellular components in health and disease.

**NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health**

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

	FY 2012 Enacted	FY 2013 PB	Increase or Decrease
Total compensable workyears:			
Full-time employment	609	603	(6)
Full-time equivalent of overtime and holiday hours	0	0	0
Average ES salary (<i>in dollars</i>)	\$154,190	\$155,253	\$1,063
Average GM/GS grade	12.3	12.4	0.1
Average GM/GS salary (<i>in dollars</i>)	\$100,462	\$101,154	\$692
Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207) (<i>in dollars</i>)	\$0	\$0	\$0
Average salary of ungraded positions (<i>in dollars</i>)	0	0	0
OBJECT CLASSES	FY 2012 Enacted	FY 2013 PB	Increase or Decrease
Personnel Compensation:			
11.1 Full-time permanent	\$41,075	\$40,964	(\$111)
11.3 Other than full-time permanent	25,940	25,796	(144)
11.5 Other personnel compensation	1,599	1,600	1
11.7 Military personnel	372	379	7
11.8 Special personnel services payments	10,354	10,379	25
Total, Personnel Compensation	\$79,340	\$79,118	(\$222)
12.0 Personnel benefits	\$19,625	\$19,568	(\$57)
12.2 Military personnel benefits	140	140	0
13.0 Benefits for former personnel	0	0	0
Subtotal, Pay Costs	\$99,105	\$98,826	(\$279)
21.0 Travel and transportation of persons	\$2,640	\$2,403	(\$237)
22.0 Transportation of things	181	181	0
23.1 Rental payments to GSA	0	0	0
23.2 Rental payments to others	2	2	0
23.3 Communications, utilities and miscellaneous charges	1,623	1,623	0
24.0 Printing and reproduction	346	310	(36)
25.1 Consulting services	4,061	4,225	164
25.2 Other services	26,961	29,174	2,213
25.3 Purchase of goods and services from government accounts	145,829	155,988	10,159
25.4 Operation and maintenance of facilities	718	718	0
25.5 Research and development contracts	23,888	22,779	(1,109)
25.6 Medical care	227	227	0
25.7 Operation and maintenance of equipment	2,489	2,489	0
25.8 Subsistence and support of persons	0	0	0
25.0 Subtotal, Other Contractual Services	\$204,173	\$215,600	\$11,427
26.0 Supplies and materials	\$5,663	\$5,663	\$0
31.0 Equipment	2,953	2,953	0
32.0 Land and structures	5	5	0
33.0 Investments and loans	0	0	0
41.0 Grants, subsidies and contributions	1,161,809	1,151,635	(10,174)
42.0 Insurance claims and indemnities	0	0	0
43.0 Interest and dividends	3	3	0
44.0 Refunds	0	0	0
Subtotal, Non-Pay Costs	\$1,379,398	\$1,380,378	\$980
Total Budget Authority by Object	\$1,478,503	\$1,479,204	\$701

Includes FTEs which are reimbursed from the NIH Common Fund.

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health

Salaries and Expenses
(Dollars in Thousands)

OBJECT CLASSES	FY 2012 Enacted	FY 2013 PB	Increase or Decrease
Personnel Compensation:			
Full-time permanent (11.1)	\$41,075	\$40,964	(\$111)
Other than full-time permanent (11.3)	25,940	25,796	(144)
Other personnel compensation (11.5)	1,599	1,600	1
Military personnel (11.7)	372	379	7
Special personnel services payments (11.8)	10,354	10,379	25
Total Personnel Compensation (11.9)	\$79,340	\$79,118	(\$222)
Civilian personnel benefits (12.1)	\$19,625	\$19,568	(\$57)
Military personnel benefits (12.2)	140	140	0
Benefits to former personnel (13.0)	0	0	0
Subtotal, Pay Costs	\$99,105	\$98,826	(\$279)
Travel (21.0)	\$2,640	\$2,403	(\$237)
Transportation of things (22.0)	181	181	0
Rental payments to others (23.2)	2	2	0
Communications, utilities and miscellaneous charges (23.3)	1,623	1,623	0
Printing and reproduction (24.0)	346	310	(36)
Other Contractual Services:			
Advisory and assistance services (25.1)	4,061	4,225	164
Other services (25.2)	26,961	29,174	2,213
Purchases from government accounts (25.3)	108,650	108,431	(219)
Operation and maintenance of facilities (25.4)	718	718	0
Operation and maintenance of equipment (25.7)	2,489	2,489	0
Subsistence and support of persons (25.8)	0	0	0
Subtotal Other Contractual Services	\$142,879	\$145,037	\$2,158
Supplies and materials (26.0)	\$5,611	\$5,611	\$0
Subtotal, Non-Pay Costs	\$153,282	\$155,167	\$1,885
Total, Administrative Costs	\$252,387	\$253,993	\$1,606

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health

Details of Full-Time Equivalent Employment (FTEs)

OFFICE/DIVISION	FY 2011 Actual			FY 2012 Enacted			FY 2013 PB		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
Office of the Director									
Direct:	108	0	108	108	0	108	106	0	106
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	108	0	108	108	0	108	106	0	106
Division of Neuroscience and Basic Behavioral Science									
Direct:	27	0	27	27	0	27	27	0	27
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	27	0	27	27	0	27	27	0	27
Division of AIDS Research									
Direct:	12	0	12	12	0	12	11	0	11
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	12	0	12	12	0	12	11	0	11
Division of Services and Intervention Research									
Direct:	19	1	20	19	1	20	19	1	20
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	19	1	20	19	1	20	19	1	20
Division of Adult Translational Research and Treatment Development									
Direct:	16	0	16	16	0	16	16	0	16
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	16	0	16	16	0	16	16	0	16
Division of Developmental Translational Research									
Direct:	15	0	15	15	0	15	15	0	15
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	15	0	15	15	0	15	15	0	15
Division of Extramural Activities									
Direct:	45	0	45	45	0	45	45	0	45
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	45	0	45	45	0	45	45	0	45
Division of Intramural Research Programs									
Direct:	365	1	366	365	1	366	362	1	363
Reimbursable:	0	0	0	0	0	0	0	0	0
Total:	365	1	366	365	1	366	362	1	363
Total	607	2	609	607	2	609	601	2	603
Includes FTEs which are reimbursed from the NIH Common Fund.									
FTEs supported by funds from Cooperative Research and Development Agreements	0	0	0	0	0	0	0	0	0
FISCAL YEAR	Average GS Grade								
2009	12.1								
2010	12.2								
2011	12.3								
2012	12.3								
2013	12.4								

**NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health**

Detail of Positions

GRADE	FY 2011 Actual	FY 2012 Enacted	FY 2013 PB
Total, ES Positions	1	1	1
Total, ES Salary	154,190	154,190	155,253
GM/GS-15	54	54	53
GM/GS-14	79	79	78
GM/GS-13	90	90	89
GS-12	78	78	77
GS-11	58	58	57
GS-10	2	2	2
GS-9	31	31	30
GS-8	16	16	16
GS-7	5	5	5
GS-6	3	3	3
GS-5	1	1	1
GS-4	2	2	2
GS-3	1	1	1
GS-2	0	0	0
GS-1	0	0	0
Subtotal	420	420	414
Grades established by Act of July 1, 1944 (42 U.S.C. 207):			
Assistant Surgeon General	2	2	2
Director Grade	0	0	0
Senior Grade	0	0	0
Full Grade	0	0	0
Senior Assistant Grade	0	0	0
Assistant Grade	0	0	0
Subtotal	2	2	2
Ungraded	0	0	0
Total permanent positions	422	422	416
Total positions, end of year	633	633	627
Total full-time equivalent (FTE) employment, end of year	609	609	603
Average ES salary	154,190	154,190	155,253
Average GM/GS grade	12.3	12.3	12.4
Average GM/GS salary	100,462	100,462	101,154

Includes FTEs which are reimbursed from the NIH Common Fund.