

DEPARTMENT OF HEALTH AND HUMAN SERVICES

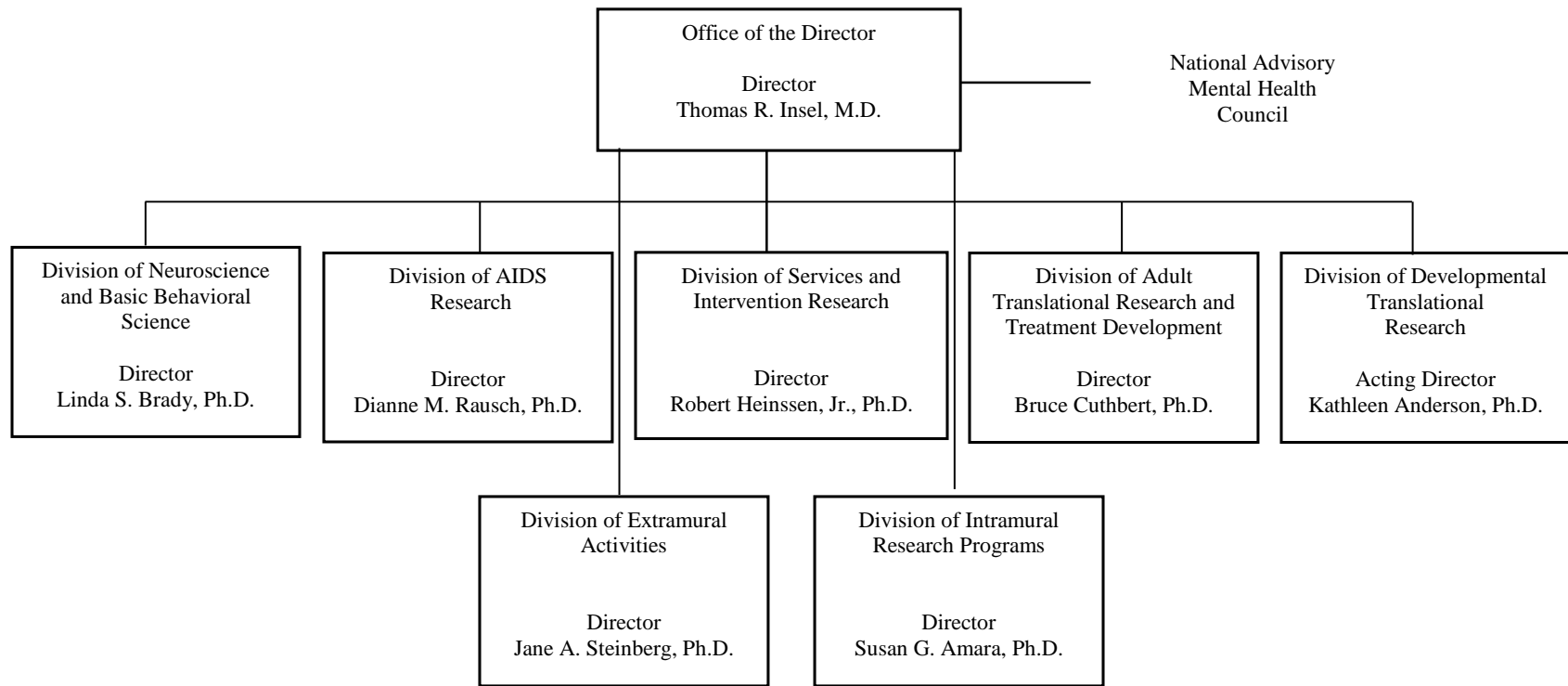
NATIONAL INSTITUTES OF HEALTH

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,
[~~\$1,446,172,000~~]*\$1,440,076,000*.

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health

Amounts Available for Obligation¹
(Dollars in Thousands)

Source of Funding	FY 2013 Actual	FY 2014 Enacted	FY 2015 President's Budget
Appropriation	\$1,480,265	\$1,446,172	\$1,440,076
Type 1 Diabetes	0	0	0
Rescission	-2,961	0	0
Sequestration	-74,299	0	0
Subtotal, adjusted appropriation	\$1,403,005	\$1,446,172	\$1,440,076
FY 2013 Secretary's Transfer	-8,184	0	0
OAR HIV/AIDS Transfers	0	-27,357	0
Comparative transfers to NLM for NCBI and Public Access	-1,657	-1,990	0
National Children's Study Transfers	1,190	0	0
Subtotal, adjusted budget authority	\$1,394,354	\$1,416,825	\$1,440,076
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	0	0	0
Subtotal, adjusted budget authority	\$1,394,354	\$1,416,825	\$1,440,076
Unobligated balance lapsing	-5	0	0
Total obligations	\$1,394,349	\$1,416,825	\$1,440,076

¹ Excludes the following amounts for reimbursable activities carried out by this account:
FY 2013 - \$14,859 FY 2014 - \$10,000 FY 2015 - \$10,000

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health
Budget Mechanism - Total¹

(Dollars in Thousands)

MECHANISM	FY 2013 Actual		FY 2014 Enacted ²		FY 2015 President's Budget		FY 2015 +/- FY 2014	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
<u>Research Projects:</u>								
Noncompeting	1,549	\$632,092	1,436	\$627,451	1,359	\$596,078	-77	-\$31,373
Administrative Supplements	(63)	14,990	(63)	14,990	(63)	14,990	(0)	0
<u>Competing:</u>								
Renewal	81	42,354	83	43,391	101	53,006	18	9,615
New	428	162,643	430	163,410	525	199,597	95	36,187
Supplements	3	702	4	865	5	1,014	1	149
Subtotal, Competing	512	\$205,700	517	\$207,666	631	\$253,617	114	\$45,951
Subtotal, RPGs	2,061	\$852,781	1,953	\$850,107	1,990	\$864,685	37	\$14,578
SBIR/STTR	83	34,478	91	37,612	94	38,928	3	1,316
Research Project Grants	2,144	\$887,259	2,044	\$887,719	2,084	\$903,613	40	\$15,894
<u>Research Centers:</u>								
Specialized/Comprehensive	47	\$81,341	42	\$71,375	42	\$71,375	0	\$0
Clinical Research	0	0	0	0	0	0	0	0
Biotechnology	0	297	0	360	0	360	0	0
Comparative Medicine	0	476	0	480	0	480	0	0
Research Centers in Minority Institutions	0	0	0	0	0	0	0	0
Research Centers	47	\$82,113	42	\$72,215	42	\$72,215	0	\$0
<u>Other Research:</u>								
Research Careers	350	\$55,660	362	\$57,553	362	\$57,553	0	\$0
Cancer Education	0	0	0	0	0	0	0	0
Cooperative Clinical Research	0	0	0	0	0	0	0	0
Biomedical Research Support	0	0	0	0	0	0	0	0
Minority Biomedical Research Support	0	0	0	0	0	0	0	0
Other	69	25,519	71	26,387	71	26,387	0	0
Other Research	419	\$81,180	433	\$83,940	433	\$83,940	0	\$0
Total Research Grants	2,610	\$1,050,552	2,519	\$1,043,874	2,559	\$1,059,768	40	\$15,894
<u>Ruth L Kirchstein Training Awards:</u>	<u>FITPs</u>		<u>FITPs</u>		<u>FITPs</u>		<u>FITPs</u>	
Individual Awards	263	\$10,544	266	\$10,902	271	\$11,120	5	\$218
Institutional Awards	567	28,708	573	29,684	584	30,278	11	594
Total Research Training	830	\$39,252	839	\$40,586	855	\$41,398	16	\$812
Research & Develop. Contracts	146	\$73,886	150	\$93,459	150	\$101,281	0	\$7,822
<i>(SBIR/STTR) (non-add)</i>	<i>(1)</i>	<i>(231)</i>	<i>(1)</i>	<i>(398)</i>	<i>(1)</i>	<i>(0)</i>	<i>(0)</i>	<i>(-398)</i>
Intramural Research	296	159,812	296	163,008	296	164,638	0	1,630
Res. Management & Support	279	70,851	279	72,268	279	72,991	0	723
<i>Res. Management & Support (SBIR Admin) (non-add)</i>	<i>(0)</i>	<i>(626)</i>	<i>(0)</i>	<i>(150)</i>	<i>(0)</i>	<i>(0)</i>	<i>(0)</i>	<i>(-150)</i>
Construction		0		0		0		0
Buildings and Facilities		0		0		0		0
Total, NIMH	575	\$1,394,354	575	\$1,416,825	575	\$1,440,076	0	\$23,251

¹ All items in italics and brackets are non-add entries. FY 2013 and FY 2014 levels are shown on a comparable basis to FY 2015.

² The amounts in the FY 2014 column take into account funding reallocations, and therefore may not add to the total budget authority reflected herein. The FY 2014 enacted level also reflects a transfer of \$27 million to NIAID for mental health research on HIV.

Major Changes in the Fiscal Year 2015 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 details and these highlights will not sum to the total change for FY 2015 President's Budget request for NIMH, which is \$23.251 million more than the FY 2014 Enacted level, for a total of \$1,440.076 million.

In FY 2014, NIH will invest a total of \$40 million to launch its part of the BRAIN Initiative, and is requesting a total of \$100 million in FY 2015 to advance the high priority research areas of the BRAIN Initiative, as outlined in its interim strategic plan. As one of the leaders of the BRAIN Initiative at NIH, NIMH is requesting an increase of \$25.150 million, for a total of \$38.000 million, in its FY 2015 budget to support these research priorities.

Research Project Grants (RPGs) (+\$15.894 million; total \$903.613 million):

NIMH will fund 631 competing RPGs in FY 2015, an increase of 114 over FY 2014 Enacted level. About 1,359 noncompeting RPG awards, totaling \$596.078 million, also will be made in FY 2015.

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health

Summary of Changes¹

(Dollars in Thousands)

FY 2014 Enacted					\$1,416,825
FY 2015 President's Budget					\$1,440,076
Net change					\$23,251
	FY 2015 President's Budget		Change from FY 2014		
CHANGES	FTEs	Budget Authority	FTEs	Budget Authority	
A. Built-in:					
1. Intramural Research:					
a. Annualization of January 2014 pay increase & benefits		\$56,174		\$412	
b. January FY 2015 pay increase & benefits		56,174		553	
c. Zero more days of pay (n/a for 2015)		56,174		0	
d. Differences attributable to change in FTE		56,174		0	
e. Payment for centrally furnished services		29,412		492	
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		79,051		171	
Subtotal					\$1,628
2. Research Management and Support:					
a. Annualization of January 2014 pay increase & benefits		\$36,112		\$264	
b. January FY 2015 pay increase & benefits		36,112		356	
c. Zero more days of pay (n/a for 2015)		36,112		0	
d. Differences attributable to change in FTE		36,112		0	
e. Payment for centrally furnished services		7,789		130	
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		29,090		-28	
Subtotal					\$722
Subtotal, Built-in					\$2,350

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

Summary of Changes - Continued¹

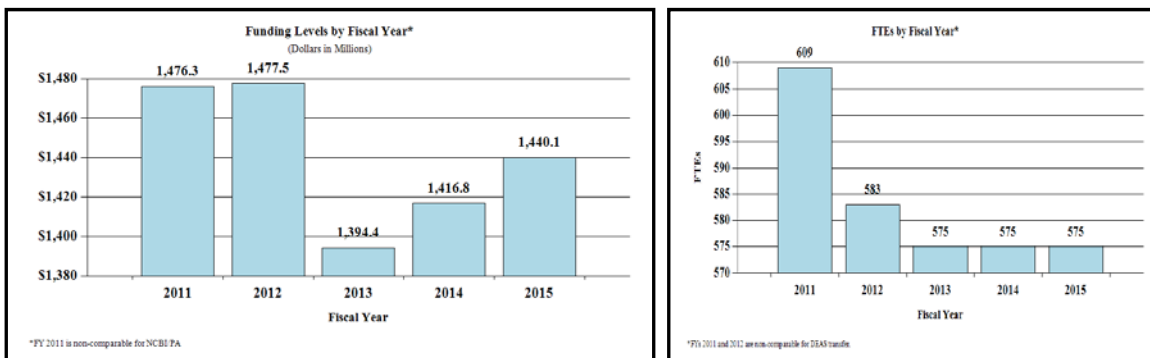
(Dollars in Thousands)

CHANGES	FY 2015 President's Budget		Change from FY 2014	
	No.	Amount	No.	Amount
B. Program:				
1. Research Project Grants:				
a. Noncompeting	1,359	\$611,068	-77	-\$31,373
b. Competing	631	253,617	114	45,951
c. SBIR/STTR	94	38,928	3	1,316
Subtotal, RPGs	2,084	\$903,613	40	\$15,894
2. Research Centers	42	\$72,215	0	\$0
3. Other Research	433	83,940	0	0
4. Research Training	855	41,398	16	812
5. Research and development contracts	150	101,281	0	7,822
Subtotal, Extramural		\$1,202,447		\$24,528
6. Intramural Research	<u>FTEs</u> 296	\$164,638	<u>FTEs</u> 0	\$2
7. Research Management and Support	279	72,991	0	1
8. Construction		0		0
9. Buildings and Facilities		0		0
Subtotal, Program	575	\$1,440,076	0	\$24,531
Total changes				\$23,251

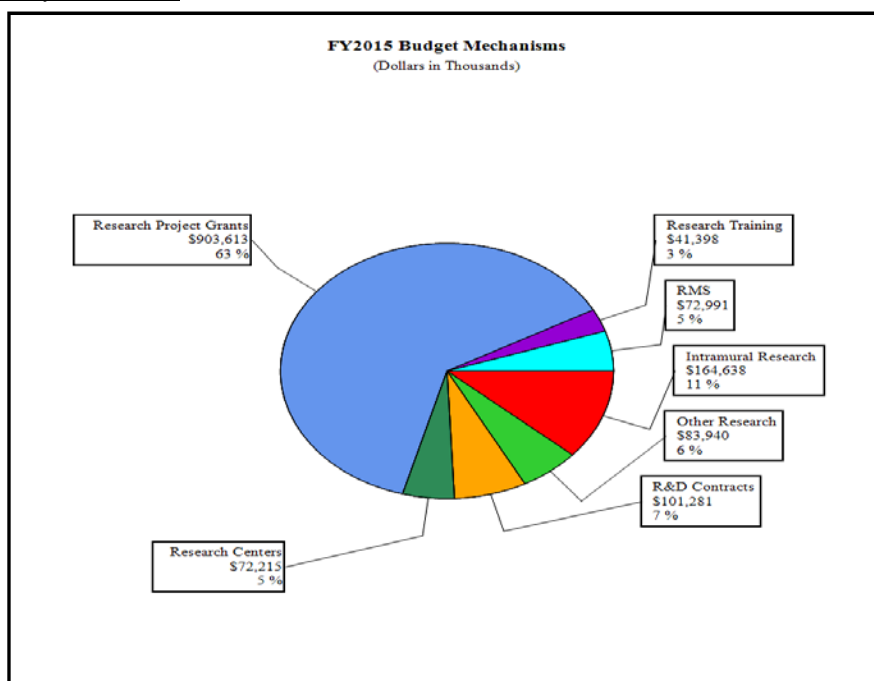
¹ The amounts in the Change from FY 2014 column take into account funding reallocations, and therefore may not add to the net change reflected herein.

Fiscal Year 2015 Budget Graphs

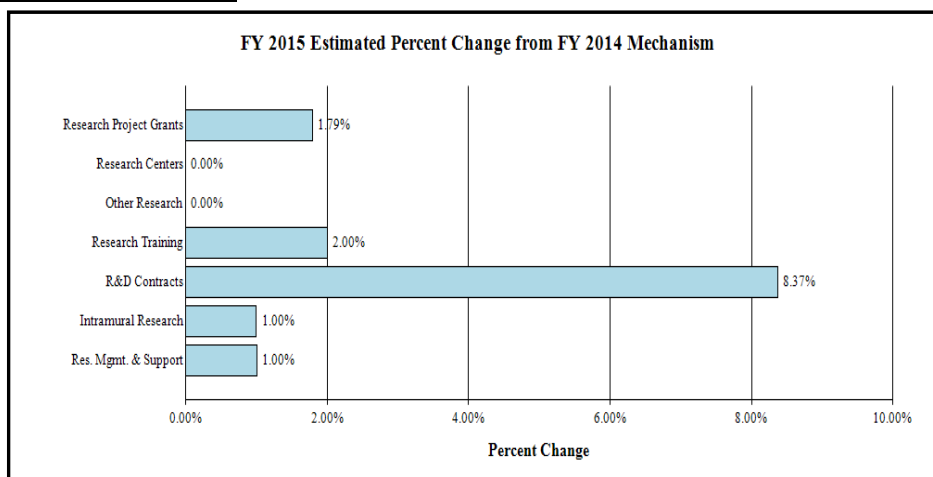
History of Budget Authority and FTEs:



Distribution by Mechanism:



Change by Selected Mechanism:



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

Budget Authority by Activity¹
(Dollars in Thousands)

	FY 2013 Actual		FY 2014 Enacted ²		FY 2015 President's Budget		FY 2015 +/- FY 2014	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
<u>Extramural Research</u>								
<u>Detail</u>								
Neuroscience & Basic Behavioral Science		\$458,824		\$475,833		\$496,215		\$20,382
Developmental Translational Research		156,058		161,843		163,104		1,261
Adult Translational Research & Treatment Research		220,715		228,898		230,632		1,734
Services & Intervention Research		133,074		138,007		139,032		1,025
AIDS Research ³		168,688		146,030		145,920		-110
Office of the Director		26,332		27,308		27,544		236
Subtotal, Extramural		\$1,163,691		\$1,177,919		\$1,202,447		\$24,528
Intramural Research	296	\$159,812	296	\$163,008	296	\$164,638	0	\$1,630
Research Management & Support	279	\$70,851	279	\$72,268	279	\$72,991	0	\$723
TOTAL	575	\$1,394,354	575	\$1,416,825	575	\$1,440,076	0	\$23,251

¹ Includes FTEs whose payroll obligations are supported by the NIH Common Fund.

² The amounts in the FY 2014 column take into account funding reallocations, and therefore may not add to the total budget authority reflected herein.

³ Total \$179.449M Actual in FY 2013; Estimated \$157.005M in FY 2014; Estimate \$157.005M in FY 2015 for HIV/AIDS.

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

Authorizing Legislation

	PHS Act/ Other Citation	U.S. Code Citation	2014 Amount Authorized	FY 2014 Enacted	2015 Amount Authorized	FY 2015 President's Budget
Research and Investigation	Section 301	42§241	Indefinite	\$1,416,825,000	Indefinite	\$1,440,076,000
National Institute of Mental Health	Section 401(a)	42§281	Indefinite		Indefinite	
Total, Budget Authority				\$1,416,825,000		\$1,440,076,000

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

Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
2005 Rescission	\$1,420,609,000	\$1,420,609,000	\$1,436,800,000	\$1,423,609,000 (\$11,676,000)
2006 Rescission	\$1,417,692,000	\$1,417,692,000	\$1,460,393,000	\$1,417,692,000 (\$14,177,000)
2007 Rescission	\$1,394,806,000	\$1,394,806,000	\$1,403,551,000	\$1,404,494,000 \$0
2008 Rescission Supplemental	\$1,405,421,000	\$1,425,531,000	\$1,436,001,000	\$1,429,446,000 (\$24,973,000) \$7,475,000
2009 Rescission	\$1,406,841,000	\$1,455,145,000	\$1,445,987,000	\$1,450,491,000 \$0
2010 Rescission	\$1,474,676,000	\$1,502,266,000	\$1,475,190,000	\$1,489,372,000 \$0
2011 Rescission	\$1,540,345,000		\$1,537,942,000	\$1,489,372,000 (\$13,078,800)
2012 Rescission	\$1,517,006,000	\$1,517,006,000	\$1,460,671,000	\$1,483,068,000 (\$2,802,999)
2013 Rescission Sequestration	\$1,479,204,000		\$1,483,687,000	\$1,480,265,001 (\$2,960,530) (\$74,299,124)
2014 Rescission	\$1,465,782,000		\$1,456,041,000	\$1,446,172,000 \$0
2015	\$1,440,076,000			

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 (BA):

	FY 2013 Actual	FY 2014 Enacted	FY 2015 President's Budget	FY 2015 +/- FY 2014
BA	\$1,394,353,584	\$1,416,825,000	\$1,440,076,000	+\$23,251,000
FTE	575	575	575	+0

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, paving the way for prevention, recovery, and cure.

In the United States, an estimated 11.5 million adults suffer from a seriously disabling mental illness, such as schizophrenia, bipolar disorder, and major depression.¹ Based on estimates for 2010, mental disorders accounted for 21.3 percent of all years lived with disability in the United States. Among the top 20 causes of years lived with disability, five were mental disorders: major depressive disorder (8.3 percent of the total), anxiety disorders (5.1 percent), schizophrenia (2.2 percent), bipolar disorder (1.6 percent) and dysthymia (1.5 percent).² Suicide is the 10th leading cause of death in the United States, accounting for the loss of more than 38,000 American lives each year, more than double the number of lives lost to homicide.³ The social and economic 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}

¹ Substance Abuse and Mental Health Services Administration, *Results from the 2011 National Survey on Drug Use and Health: Mental Health Findings, NSDUH Series H-45, HHS Publication No. (SMA) 12-4725*. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2012.

² Analysis based on: US Burden of Disease Collaborators, Murray CL, Abraham J, et al. *The State of US Health, 1990-2010: Burden of Diseases, Injuries, and Risk Factors*. JAMA. 2013;310(6):591-608. doi:10.1001/jama.2013.13805.

³ Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. *Web-based Injury Statistics Query and Reporting System (WISQARS)*: www.cdc.gov/ncipc/wisqars accessed October 2013.

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.

Schizophrenia, bipolar disorder, depression, post-traumatic stress disorder, anxiety disorders, autism spectrum disorder, eating disorders, borderline personality disorder, and other disorders are significantly impairing, life-threatening illnesses. NIMH's Strategic Plan provides direction for harnessing rigorous scientific research to develop new diagnostic tests, more effective interventions, and better prevention strategies to address the public health burden of these disorders. NIMH will support research initiatives in FY 2015 that build upon and expand basic brain and behavioral research; translate basic research into innovative, personalized treatments; and, capitalize on the growing opportunities in big data and data sharing.

Unlocking the Mysteries of the Brain through Basic Research

The [BRAIN Initiative](#) (Brain Research through Advancing Innovative Neurotechnologies), which includes \$40 million in funding from NIH in FY 2014, as well as funding from several Federal and private partners, will support the development of new technologies for understanding how neural circuits link to behavior. NIMH is contributing \$12.85 million to the BRAIN initiative in FY 2014, and plans to provide \$38.0 million in FY 2015.

Recent NIMH investments in basic neuroscience research have already built a foundation for this new initiative. For example, NIMH-funded researchers have developed a technology that can rapidly start or stop the expression of a gene of interest. Based on "optogenetics" (which uses proteins that change their function in response to light), the technique allows researchers to control precisely the timing and duration of gene expression.⁶ Another group of NIMH-funded researchers has developed a method they call CLARITY (Clear Lipid-exchanged Anatomically Rigid Imaging/immunostaining-compatible Tissue hYdrogel), which makes the brain transparent.⁷ This method enables, for the first time, investigation of the whole intact brain, as well as high-resolution analysis of its proteins, neurotransmitters, and genes. These two projects not only exemplify the types of research that NIMH hopes to cultivate through the BRAIN Initiative in FY 2015 and beyond, but also highlight the importance NIMH places on nurturing innovative up-and-coming scientists. The lead investigators of both studies received funding via the [NIH Transformative Research Award Program](#), which was created specifically to support exceptionally innovative and/or unconventional research projects that have the potential to create or overturn fundamental paradigms.

Precision Medicine

NIMH continues to strive to translate basic research findings on brain function into more person-centered and multifaceted diagnoses and treatments for mental disorders. The [Research Domain Criteria \(RDoC\) project](#) is one important step toward such precision medicine. By building a classification system based more on underlying biological and basic behavioral mechanisms than on symptoms, RDoC should begin to give us the precision currently lacking with traditional diagnostic approaches to mental disorders. By way of example, the Cross Disorders Group of

⁶ Konermann S, et al. Optical control of mammalian endogenous transcription and epigenetic states. *Nature*. 2013 Aug 22;500(7463):472-6.

⁷ Chung K, et al. Structural and molecular interrogation of intact biological systems. *Nature*. 2013 May 16;497(7449):332-7.

the NIMH-funded [Psychiatric Genomics Consortium](#) (PGC)—the largest genome-wide study of its kind—recently determined how much five major mental illnesses are traceable to the same common inherited genetic variations.⁸ These findings of shared genetic risk among traditional psychiatric diagnoses will inform the RDoC project. Moreover, in FY 2013, NIMH announced an RDoC-oriented initiative to promote research to validate and refine contemporary views of specific functional aspects of motivation, cognition, and social behavior.⁹ NIMH anticipates that awarded grants will initiate funding in mid-FY 2014 and continue through FY 2019.

Another study illustrating NIMH’s ongoing focus on precision medicine involves utilizing brain imaging—currently primarily a research tool—as an aid for clinical decision-making. Using positron emission tomography (PET), NIMH-funded researchers have identified activity patterns in particular brain regions that can predict which type of treatment (cognitive behavioral therapy and/or antidepressant medication) would be of most benefit to an individual with depression.¹⁰ Should follow-up replication studies confirm the findings, this type of brain imaging may lead to more personalized—and less trial-and-error–based—treatment for depression.

Big Opportunities in Big Data

Brain imaging studies now regularly generate massive data sets of brain structure and function; so too genome-wide studies of genetic risk for brain disorders.¹¹ NIMH is poised to take full advantage of the ‘big data’ revolution, through efforts to promote common data elements in neuroscience research and broad data sharing. For example, the NIH National Database for Autism Research (NDAR), a repository of clinical, genetic, and imaging data from autism spectrum disorder (ASD) research involving human subjects, integrates the computational resources developed by institutions, private foundations, and other Federal and state agencies supporting ASD research. Data within NDAR are categorized using standardized formats to enable secondary analysis by other qualified researchers. NDAR provides scientists with the tools to validate research results and to conduct rigorous studies using data from multiple sources to create larger sample populations. At NIH, approximately 80 percent of all ongoing ASD grants involving human participants have data sharing with NDAR as a term of award; by 2015, virtually all such NIH ASD research is expected to include these terms.

Overall Budget Policy:

The FY 2015 President’s Budget request is \$1,440.076 million, an increase of \$23.251 million, or 1.6 percent above the FY 2014 Enacted level. Funds are included in competing RPGs to support the trans-NIH BRAIN Initiative.

⁸ <http://www.nimh.nih.gov/news/science-news/2013/new-data-reveal-extent-of-genetic-overlap-between-major-mental-disorders.shtml>

⁹ <http://grants.nih.gov/grants/guide/rfa-files/RFA-MH-14-050.html>

¹⁰ McGrath CL, et al. Toward a neuroimaging treatment selection biomarker for major depressive disorder. *JAMA Psychiatry*. June 12, 2013.

¹¹ <http://www.nimh.nih.gov/news/science-news/2013/five-major-mental-disorders-share-genetic-roots.shtml>

Program Descriptions

Adult Translational Research and Treatment Development

The Division of Adult Translational Research and Treatment Development (DATR) plans, supports, and implements 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 accelerating the translation of scientific advances into innovations in clinical care for adults. The Division supports a broad research portfolio including studies of the risk factors for major psychiatric disorders; clinical neuroscience to elucidate causes and functional effects of these disorders; and, development of new psychosocial, pharmacological, and somatic treatments.

In FY 2013, DATR launched new clinical trials contracts aimed at streamlined testing of promising candidate treatments for disorders of the psychotic spectrum, the mood and anxiety spectrum, and treatment resistant depression. These novel trials will follow a rigorous experimental medicine paradigm to both inform treatment development and provide a better understanding of the underlying causes of these disorders. In FY 2014, DATR plans to begin to refocus its investigator-initiated clinical trials portfolio with the release of new funding opportunity announcements. These announcements will invite proposals for high quality experimental medicine trials, with the goal of providing the best information possible to advance the field and allow “go/no-go” decisions about pursuing a given approach.

Budget Policy:

The FY 2015 President’s Budget estimate is \$230.632 million, an increase of \$1.734 million, or 0.8 percent above the FY 2014 Enacted level.

Program Portrait: Accelerating the Pace of Psychiatric Drug Discovery

FY 2014 Level: \$35.900

FY 2015 Level: \$37.400

Difference: +\$ 1.500

There is an urgent need for new medications to treat mental disorders. Existing medications can be helpful, but they often have significant limitations; in some cases requiring weeks to take effect; failing to relieve symptoms in a significant proportion of patients; or, resulting in debilitating side effects. However, developing new medications is a lengthy and expensive process. Many promising compounds fail to prove effective in clinical testing after years of preliminary research.

To address this urgent issue, NIMH is working to accelerate the pace of drug discovery through an ‘experimental medicine’ approach to evaluating novel interventions for mental illnesses. This fast-fail strategy is designed not only to identify quickly those compounds that merit more extensive testing, but also to identify targets in the brain for the development of additional candidate compounds. The strategy calls for small trials focused on proof-of-concept experimental medicine paradigms to demonstrate target engagement, safety, and early signs of efficacy. In FY 2013, NIMH launched new contracts for Fast-Fail Trials (FAST) in Autism Spectrum Disorders (FAST-AS), Mood and Anxiety Spectrum Disorders (FAST-MAS), and Psychotic Spectrum Disorders (FAST-PS), as well as Rapidly-Acting Treatments for Treatment-Resistant Depression (RAPID).

Moreover, NIMH intends to issue funding opportunity announcement (FOAs) to support the efficient identification and testing of novel interventions for mental disorders. Trials supported under these FOAs will be designed so that results, whether positive or negative, provide information critical to deciding whether to conduct further development or testing of the intervention. NIMH will encourage studies of novel interventions with a rigorous

empirical basis for testing in humans and clinical populations, which include behavioral, biologics-based, cognitive, device-based, interpersonal, pharmacological, physiological, or combined approaches. Trials funded via this initiative are anticipated to commence in FY 2015. NIMH anticipates that the results from these studies will speed the translation of emerging basic science findings of mechanisms and processes underlying mental disorders into novel interventions that can be efficiently tested for their promise in restoring function and reducing symptoms for those living with mental disorders.

Developmental Translational Research

The Division of Developmental Translational Research (DDTR) 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 neurodevelopmental origins and trajectories of mental disorders, with the ultimate goal of preventing and curing mental disorders that begin in childhood and adolescence.

In FY 2013, NIMH awarded funding to a new Autism Center of Excellence (ACE). The researchers are conducting a multi-site trial to provide information on what effects different styles of early intervention for young children with autism, and the intensity of treatment, have on children's development. The researchers will also investigate whether toddlers who received early intervention in a previous clinical trial show long-term benefits from the intervention. Another area of focus for DDTR is eating disorders (anorexia nervosa, bulimia nervosa, and binge eating), which are associated with significant morbidity and mortality, as well as frequent relapse after treatment. In FY 2014, DDTR is supporting an initiative to increase integrative, hypothesis-driven studies of brain circuits and other biological mechanisms underlying eating disorders. Research supported by this initiative will lead to innovations in identifying the causes of and novel treatment targets for eating disorders. Finally, DDTR continues to lead the NIMH Biobehavioral Research Awards for Innovative New Scientists initiative (BRAINS), which supports innovative and ambitious research proposals from early stage investigators with the potential for significantly advancing the understanding of the causes, functional mechanisms, and treatment of mental disorders. The most promising new investigators are supported to develop independent, high risk/high payoff research programs that address the highest priorities for NIMH.

Budget Policy:

The FY 2015 President's Budget estimate is \$163.104 million, an increase of \$1.261 million, or 0.8 percent above the FY 2014 Enacted level.

Neuroscience and Basic Behavioral Science

The Division of Neuroscience and Basic Behavioral Science (DNBBS) provides support for research in the areas of basic neuroscience, genetics, basic behavioral science, research training, resource development, and drug discovery. In cooperation with other NIMH programs and the wider research community, this program ensures that relevant basic scientific knowledge is generated and used in pursuit of improved methods to the diagnose, treat, and prevent mental and behavioral disorders.

NIMH funds grants across a range of research topics to facilitate understanding of the basic neurobiology that underlies mental disorders. Recent studies have emphasized the exciting role of the microbiome—the microbial ecosystems that inhabit the gut—in human health and behavior. In FY 2015, DNBS will support basic neuroscience studies to elucidate mechanisms through which gut microbes influence brain development, neurotransmitter signaling, and animal behavior. The ultimate goal of this research is to develop a clearer understanding of how environmental factors influence brain function and individual susceptibility to mental disorders. Similarly, NIMH will support genetic studies aimed at describing the functional elements of the human genome that do not code for proteins, with the aim of understanding their role(s) in the biological mechanisms underlying mental disorders. Finally, NIMH will fund multidisciplinary research groups to use patient-derived reprogrammed cells, such as induced pluripotent stem cells, to develop platforms for identifying novel targets for drug development and developing new treatments for mental disorders.

Budget Policy:

The FY 2015 President's Budget estimate is \$496.215 million, an increase of \$20.382 million, or 4.3 percent above the FY 2014 Enacted level.

Services and Intervention Research

The Division of Services and Intervention Research supports research that evaluates the effectiveness of psychosocial, pharmacological, somatic, rehabilitative, and combined interventions to prevent or treat mental and behavioral disorders. The Division evaluates interventions for children, adolescents, and adults, focusing on acute and long-term symptom reduction, remission, and improved community functioning. The Division also supports mental health services research, including interventions to improve the quality and outcomes of care; organization and system-level interventions to enhance service delivery; and, strategies for widespread dissemination and implementation of evidence-based treatments into routine care settings.

NIMH supports the Recovery After an Initial Schizophrenia Episode (RAISE) Project, which aims to prevent the long-term disability associated with schizophrenia by intervening at the earliest stages of illness. The RAISE Project comprises two separate, but complementary, research programs. The RAISE Early Treatment Program (RAISE ETP), which has enrolled 400 patients with early psychosis in a trial comparing two treatment approaches for schizophrenia and related disorders, will conclude in FY 2014. The RAISE Connection Program has successfully integrated a comprehensive early intervention program for schizophrenia and related disorders into an existing medical care system. This implementation study is now evaluating strategies for reducing duration of untreated psychosis among persons with early-stage psychotic illness. When individuals with serious mental illnesses (SMI) such as schizophrenia and bipolar disorder progress to later stages of SMI, they become more likely to develop—and die prematurely—from medical problems such as heart disease, diabetes, cancer, stroke, and pulmonary disease than members of the general population. NIMH funded three projects in FY 2013 to advance the health of people with SMI, and anticipates funding several large-scale clinical trials aimed at reducing premature mortality with people with SMI in FY 2014. Finally, the Division launched three initiatives in FY 2013 to stimulate services research to improve functional and health outcomes for people with autism spectrum disorder at three life stages:

early childhood, transition to adulthood, and adulthood; funding is anticipated to begin in FY 2014 and continue through FY 2015 and beyond.

Budget Policy:

The FY 2015 President's Budget estimate is \$139.032 million, an increase of \$1.025 million, or 0.7 percent above the FY 2014 Enacted level.

Program Portrait: Early Psychosis Prediction and Prevention (EP3)

FY 2014 Level: \$25.000
FY 2015 Level: \$30.000
Change: +\$5.000

As many as 100,000 young Americans experience a first episode of psychosis (FEP) each year.¹ The early phase of psychotic illness is a critical opportunity to alter the downward trajectory and social, academic, and vocational challenges associated with serious mental illnesses such as schizophrenia. The timing of treatment is critical; short- and long-term outcomes are better when individuals begin treatment close to the onset of psychosis. Early identification, rapid referral to specialty FEP care, and engagement in phase-specific treatment are essential to shortening the duration of untreated psychosis and pre-empting functional deterioration. However, the majority of people with mental illness experience significant delays to seeking care—up to two years in some cases. Such delays result in periods of increased risk for violence, especially suicide.

For more than a decade, NIMH-funded research has focused on the prodrome, the high-risk period preceding the onset of the first psychotic episode of schizophrenia. Based on the success of the multi-site North American Prodrome Longitudinal Study (NAPLS) and many related studies that focused on early prediction and prevention of psychosis, NIMH has launched Early Psychosis Prediction and Prevention (EP3) initiative. EP3 aims to accelerate research on detecting risk states for psychotic disorders, preventing the onset of psychosis in high risk individuals, and reducing the duration of untreated psychosis in people who have experienced FEP.

The first two EP3 funding opportunity announcements (FOAs) have been released: Research to Improve the Care of Persons at Clinical High Risk for Psychotic Disorders (RFA-MH-14-210, RFA-MH-14-211, and RFA-MH-14-212) and Reducing the Duration of Untreated Psychosis in the United States (PAR-13-187 and PAR-13-188). Through these FOAs, NIMH aims to support research in FY 2015 and beyond on: effective interventions targeting symptoms and functional difficulties associated with risk for psychosis; mediators and mechanisms of action of interventions; stepped-care models of early psychosis intervention; the feasibility of implementing such approaches in community-based treatment settings; and, reproducible strategies for substantially reducing the duration of untreated psychosis among persons with FEP by removing significant bottlenecks in the pathway to specialty FEP care.

¹Calculated from McGrath J, Saha S, Chant D, Welham J. (2008). *Schizophrenia: a concise overview of incidence, prevalence, and mortality. Epidemiologic Reviews, 30:67-76.*

Program Portrait: *Research Strategies for Suicide Prevention*

FY 2014 Level: \$21.163

FY 2015 Level: \$26.163

Difference: +\$ 5.000

Suicide is the 10th leading cause of death in the United States, accounting for the loss of more than 38,000 American lives each year¹. In contrast to the rates of homicides and traffic fatalities in this country, the rate of suicides has not declined. To transform the suicide prevention research landscape and accelerate progress, NIMH has undertaken several initiatives to enhance suicide prevention efforts research strategies.

NIMH took a lead role in a public-private partnership with the National Action Alliance for Suicide Prevention's Research Prioritization Task Force to develop the Nation's first suicide research agenda, *A Prioritized Research Agenda for Suicide Prevention: An Action Plan to Save Lives*. The Research Agenda includes an overarching goal to advance suicide prevention research more rapidly, seeking ways to reduce suicide deaths and attempts by 20 percent in five years and by 40 percent or greater in 10 years, if multiple actions, informed by research, were fully implemented. The Research Agenda includes 30 scientific objectives that span basic, clinical, and services and interventional research, as well as address a number of research infrastructure needs.

A second major suicide prevention effort focuses on post-traumatic stress disorder (PTSD) and on suicide in the military. The National Research Action Plan (NRAP), a coordinated effort by the Departments of Defense, Veterans Affairs, Health and Human Services, and Education, was created in response to the President's 2012 Executive Order calling for improved access to mental health services for veterans, service members, and military families². In the NRAP, the Departments outlined coordinated research efforts to accelerate discovery of the causes and mechanisms underlying PTSD, traumatic brain injury, and other co-occurring outcomes like suicide, depression, and substance abuse disorders. The plan describes research to translate rapidly what is learned into new effective prevention strategies and clinical innovations; biomarkers to detect disorders early and accurately; and efficacious and safe treatments to improve function and quality of life and to promote community participation and reintegration. The NRAP also describes research to accelerate the implementation of proven means of preventing and treating these devastating conditions. Many collaborative efforts across Departments are already under way; NIMH will use the NRAP to inform research priorities for reducing morbidity and mortality associated with PTSD.

¹ *Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS): www.cdc.gov/ncipc/wisqars accessed October 2013.*

² *Full text of the Executive Order can be found at: <http://www.whitehouse.gov/the-press-office/2012/08/31/executive-order-improving-access-mental-health-services-veterans-service>*

AIDS Research

The Division of AIDS Research (DAR) supports research and research training to develop and disseminate behavioral interventions that prevent HIV/AIDS transmission; understand the factors that affect adherence to therapeutic or preventive regimens; clarify the biological, psychological, and functional mental health effects of HIV/AIDS infection; understand the neurological manifestations and complications of HIV; and, alleviate those effects among infected and affected individuals.

Recent research advances in HIV prevention using combined biomedical and behavioral approaches have generated tremendous optimism that a significant decrease in HIV incidence is achievable. NIMH fosters the effective integration of evidence-based behavioral science and combination biomedical strategies to achieve this goal. DAR continues to target scientifically sound behavioral research on testing and implementing novel interventions to prevent further spread of HIV and optimize outcomes in HIV-infected individuals. DAR is currently supporting

research on components of the HIV treatment cascade and to foster the development of new and improved methods to monitor adherence to treatment and care. The Division has also released a funding opportunity announcement to stimulate research on methods to eliminate HIV in infected individuals by eradicating the virus from biological reservoirs in the central nervous system, thereby leading toward a cure. Through its commitment to bringing multidisciplinary expertise to agency-wide strategic planning efforts, DAR is working to ensure that effective integration of biomedical and behavioral approaches is accomplished, thereby advancing the march towards an AIDS-free generation.

Budget Policy:

The FY 2015 President's Budget estimate is \$145.920 million, a decrease of \$0.110 million, or -0.1 percent below the FY 2014 Enacted level.

Intramural Research Programs

The Division of Intramural Research Programs (DIRP) is the internal research component of NIMH, complementing the Institute's extramural grant funding program to the research community outside of NIH. DIRP scientists investigate basic, clinical, and translational aspects of brain function and behavior; conduct state-of-the-art research, through the use of unique NIH resources; and, provide an environment conducive to the training of the next generation of clinical and basic scientists.

In FY 2013, DIRP researchers continued to employ cutting-edge technologies to explore the relationship between genes, brain, and behavior in healthy development and in childhood-onset mental disorders. DIRP is currently conducting the largest pediatric imaging project of its kind, with over 3,000 brain imaging scans completed at the start of FY 2014. In addition, DIRP researchers continue to explore novel medications for treatment-resistant depression, including ketamine and other experimental fast-acting antidepressant medications, and to identify biomarkers for predicting how well an individual with depression will respond to such rapid-acting antidepressants.

Budget Policy:

The FY 2015 President's Budget estimate is \$164.638 million, an increase of \$1.630 million or 1.0 percent over the FY 2014 Enacted level.

Research Management and Support (RMS)

The RMS 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 2013, the Institute oversaw 2,610 research grants, 374 training grants, and 146 research and development contracts. Moreover, in FY 2013, NIMH proactively completed six large-scale internal risk management reviews and implemented one ongoing review to examine and assess the effectiveness of management controls in four major areas of responsibility. The purpose of the Risk Management Program is to identify any weaknesses and detect potential fraud, waste, or

abuse, and take necessary actions to minimize the risk of recurrence. The NIMH Risk Management Program implements new guidelines, updates current guidelines, and tracks corrective action plans in an on-going effort to improve internal policies and procedures.

Budget Policy:

The FY 2015 President's Budget estimate is \$72.991 million, an increase of \$0.723 million or 1.0 percent over the FY 2014 Enacted level.

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

Budget Authority by Object Class¹
(Dollars in Thousands)

	FY 2014 Enacted	FY 2015 President's Budget	FY 2015 +/- FY 2014
Total compensable workyears:			
Full-time employment	575	0	-575
Full-time equivalent of overtime and holiday hours	0	0	0
Average ES salary	\$175	\$177	\$2
Average GM/GS grade	12.1	12.1	0.0
Average GM/GS salary	\$102	\$103	\$1
Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207)	\$127	\$129	\$1
Average salary of ungraded positions	\$0	\$0	\$0
OBJECT CLASSES	FY 2014	FY 2015	FY 2015
Personnel Compensation			
11.1 Full-Time Permanent	\$39,882	\$40,281	\$399
11.3 Other Than Full-Time Permanent	23,113	23,344	231
11.5 Other Personnel Compensation	512	517	5
11.7 Military Personnel	252	254	3
11.8 Special Personnel Services Payments	8,292	8,375	83
11.9 Subtotal Personnel Compensation	\$72,050	\$72,771	\$721
12.1 Civilian Personnel Benefits	\$18,755	\$19,411	\$656
12.2 Military Personnel Benefits	103	104	1
13.0 Benefits to Former Personnel	0	0	0
Subtotal Pay Costs	\$90,908	\$92,286	\$1,378
21.0 Travel & Transportation of Persons	\$2,054	\$2,089	\$35
22.0 Transportation of Things	76	77	1
23.1 Rental Payments to GSA	0	0	0
23.2 Rental Payments to Others	0	0	0
23.3 Communications, Utilities & Misc. Charges	1,548	1,574	26
24.0 Printing & Reproduction	139	141	2
25.1 Consulting Services	\$3,611	\$3,671	\$60
25.2 Other Services	21,046	20,819	-228
25.3 Purchase of goods and services from government accounts	\$139,464	\$143,480	\$4,016
25.4 Operation & Maintenance of Facilities	\$1,212	\$1,232	\$21
25.5 R&D Contracts	54,935	55,868	934
25.6 Medical Care	220	228	8
25.7 Operation & Maintenance of Equipment	2,757	2,804	47
25.8 Subsistence & Support of Persons	0	0	0
25.0 Subtotal Other Contractual Services	\$223,244	\$228,102	\$4,857
26.0 Supplies & Materials	\$5,208	\$5,297	\$89
31.0 Equipment	9,187	9,344	156
32.0 Land and Structures	0	0	0
33.0 Investments & Loans	0	0	0
41.0 Grants, Subsidies & Contributions	1,084,460	1,101,166	16,706
42.0 Insurance Claims & Indemnities	0	0	0
43.0 Interest & Dividends	0	0	0
44.0 Refunds	0	0	0
Subtotal Non-Pay Costs	\$1,325,917	\$1,347,790	\$21,873
Total Budget Authority by Object Class	\$1,416,825	\$1,440,076	\$23,251

¹ Includes FTEs whose payroll obligations are supported by the NIH Common Fund.

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health

Salaries and Expenses
(Dollars in Thousands)

OBJECT CLASSES	FY 2014 Enacted	FY 2015 President's Budget	FY 2015 +/- FY 2014
Personnel Compensation			
Full-Time Permanent (11.1)	\$39,882	\$40,281	\$399
Other Than Full-Time Permanent (11.3)	23,113	23,344	231
Other Personnel Compensation (11.5)	512	517	5
Military Personnel (11.7)	252	254	3
Special Personnel Services Payments (11.8)	8,292	8,375	83
Subtotal Personnel Compensation (11.9)	\$72,050	\$72,771	\$721
Civilian Personnel Benefits (12.1)	\$18,755	\$19,411	\$656
Military Personnel Benefits (12.2)	103	104	1
Benefits to Former Personnel (13.0)	0	0	0
Subtotal Pay Costs	\$90,908	\$92,286	\$1,378
Travel & Transportation of Persons (21.0)	\$2,054	\$2,089	\$35
Transportation of Things (22.0)	76	77	1
Rental Payments to Others (23.2)	0	0	0
Communications, Utilities & Misc. Charges (23.3)	1,548	1,574	26
Printing & Reproduction (24.0)	139	141	2
Other Contractual Services:			
Consultant Services (25.1)	2,904	2,953	49
Other Services (25.2)	21,046	20,819	-228
Purchases from government accounts (25.3)	101,934	98,664	-3,270
Operation & Maintenance of Facilities (25.4)	1,212	1,232	21
Operation & Maintenance of Equipment (25.7)	2,757	2,804	47
Subsistence & Support of Persons (25.8)	0	0	0
Subtotal Other Contractual Services	\$129,853	\$126,472	-\$3,381
Supplies & Materials (26.0)	\$5,208	\$5,297	\$89
Subtotal Non-Pay Costs	\$138,878	\$135,651	-\$3,227
Total Administrative Costs	\$229,786	\$227,937	-\$1,849

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

Detail of Full-Time Equivalent Employment (FTE)

OFFICE/DIVISION	FY 2013 Actual			FY 2014 Est.			FY 2015 Est.		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
Division of Adult Translational Research and Treatment Development									
Direct:	20		20	20		20	20		20
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	20		20	20		20	20		20
Division of AIDS Research									
Direct:	15		15	15		15	15		15
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	15		15	15		15	15		15
Division of Developmental Translational Research									
Direct:	17		17	17		17	17		17
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	17		17	17		17	17		17
Division of Extramural Activities									
Direct:	47		47	47		47	47		47
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	47		47	47		47	47		47
Division of Intramural Research Programs									
Direct:	295	1	296	295	1	296	295	1	296
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	295	1	296	295	1	296	295	1	296
Division of Neuroscience and Basic Behavioral Science									
Direct:	26		26	26		26	26		26
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	26		26	26		26	26		26
Division of Services and Intervention Research									
Direct:	20	1	21	20	1	21	20	1	21
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	20	1	21	20	1	21	20	1	21
Office of the Director									
Direct:	133		133	133		133	133		133
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	133		133	133		133	133		133
Total	573	2	575	573	2	575	573	2	575
Includes FTEs whose payroll obligations are supported by 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								
2011	12.1								
2012	12.3								
2013	12.1								
2014	12.1								
2015	12.1								

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

Detail of Positions

GRADE	FY 2013 Actual	FY 2014 Enacted	FY 2015 President's Budget
Total, ES Positions	1	1	1
Total, ES Salary	172,832	174,560	176,829
GM/GS-15	57	57	57
GM/GS-14	74	74	74
GM/GS-13	93	93	93
GS-12	61	61	61
GS-11	49	49	49
GS-10	1	1	1
GS-9	29	29	29
GS-8	21	21	21
GS-7	18	18	18
GS-6	4	4	4
GS-5	2	2	2
GS-4	0	0	0
GS-3	2	2	2
GS-2	0	0	0
GS-1	0	0	0
Subtotal	411	411	411
Grades established by Act of July 1, 1944 (42 U.S.C. 207)	0	0	0
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	412	412	0
Total positions, end of year	595	595	0
Total full-time equivalent (FTE) employment, end of year	575	575	0
Average ES salary	172,832	174,560	176,829
Average GM/GS grade	12.1	12.1	12.1
Average GM/GS salary	100,752	101,760	103,083

Includes FTEs whose payroll obligations are supported by the NIH Common Fund.