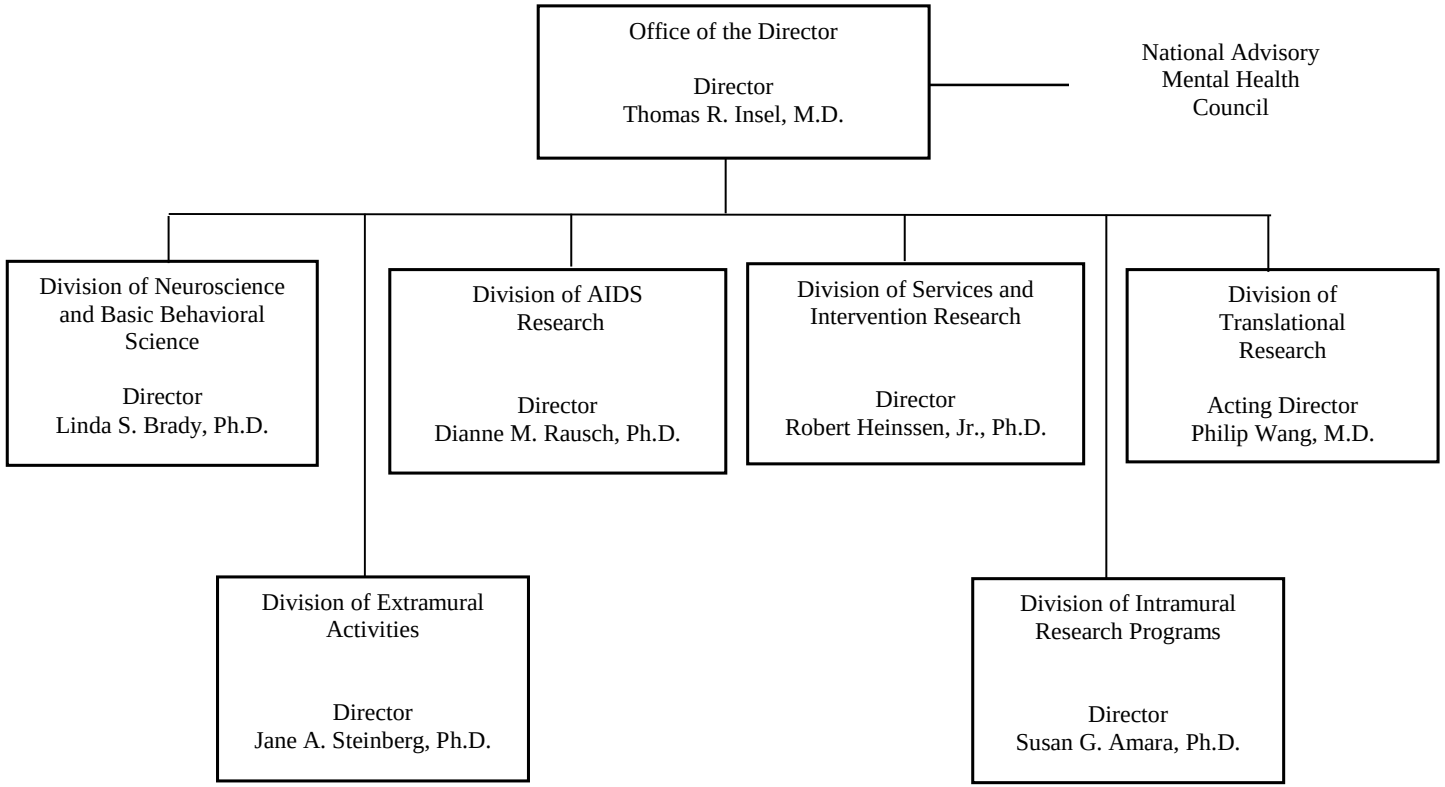
DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

National Institute of Mental Health (NIMH)

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, [$1,463,036,000] *$1,489,417,000*.

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health

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

Source of Funding	FY 2014 Actual	FY 2015 Enacted	FY 2016 President's Budget
Appropriation	$1,446,172	$1,463,036	$1,489,417
Type 1 Diabetes	0	0	0
Rescission	0	0	0
Sequestration	0	0	0
FY 2014 First Secretary's Transfer	-3,630	0	0
FY 2014 Second Secretary's Transfer	-284	0	0
Subtotal, adjusted appropriation	$1,442,258	$1,463,036	$1,489,417
OAR HIV/AIDS Transfers	-27,357	-29,385	0
National Children's Study Transfers	4,753	0	0
Subtotal, adjusted budget authority	$1,419,654	$1,433,651	$1,489,417
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	0	0	0
Subtotal, adjusted budget authority	$1,419,654	$1,433,651	$1,489,417
Unobligated balance lapsing	-22	0	0
Total obligations	$1,419,632	$1,433,651	$1,489,417

[1] Excludes the following amounts for reimbursable activities carried out by this account:
FY 2014 - $5,330 FY 2015 - $10,050 FY 2016 - $10,000

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health
Budget Mechanism - Total[1]
(Dollars in Thousands)

MECHANISM	FY 2014 Actual		FY 2015 Enacted		FY 2016 President's Budget		FY 2016 +/- FY 2015	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Research Projects:								
Noncompeting	1,437	$625,588	1,395	$638,484	1,404	$659,370	9	$20,886
Administrative Supplements	*(87)*	12,540	*(69)*	10,000	*(55)*	7,999	*(-14)*	-2,001
Competing:								
Renewal	71	39,516	110	47,830	95	41,517	-15	-6,313
New	474	201,313	413	180,108	485	211,508	72	31,400
Supplements	3	745	2	915	2	783	0	-132
Subtotal, Competing	548	$241,574	525	$228,853	582	$253,808	57	$24,955
Subtotal, RPGs	1,985	$879,702	1,920	$877,337	1,986	$921,177	66	$43,840
SBIR/STTR	80	37,320	82	39,573	87	43,079	5	3,506
Research Project Grants	2,065	$917,022	2,002	$916,910	2,073	$964,256	71	$47,347
Research Centers:								
Specialized/Comprehensive	44	$75,917	43	$74,571	45	$79,697	2	$5,126
Clinical Research	0	0	0	0	0	0	0	0
Biotechnology	0	687	0	0	0	0	0	0
Comparative Medicine	0	495	0	500	0	500	0	0
Research Centers in Minority Institutions	0	0	0	0	0	0	0	0
Research Centers	44	$77,099	43	$75,071	45	$80,197	2	$5,126
Other Research:								
Research Careers	341	$54,994	341	$54,994	341	$54,994	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	63	25,185	63	25,185	63	25,185	0	0
Other Research	404	$80,179	404	$80,179	404	$80,179	0	$0
Total Research Grants	2,513	$1,074,299	2,449	$1,072,160	2,522	$1,124,632	73	$52,472
Ruth L Kirchstein Training Awards:	FTTPs		FTTPs		FTTPs		FTTPs	
Individual Awards	244	$9,639	233	$9,639	224	$9,639	-9	$0
Institutional Awards	511	26,279	506	26,279	501	26,279	-5	0
Total Research Training	755	$35,918	739	$35,918	725	$35,918	-14	$0
Research & Develop. Contracts	182	$74,239	164	$87,944	164	$88,862	0	$918
(SBIR/STTR) (non-add)	*(1)*	*(188)*	*(0)*	*(411)*	*(0)*	*(411)*	*(0)*	*(0)*
Intramural Research	275	163,008	279	164,638	279	166,284	0	1,646
Res. Management & Support	280	72,189	279	72,991	279	73,721	0	730
Res. Management & Support (SBIR Admin) (non-add)	*(0)*	*(71)*	*(0)*	*(150)*	*(0)*	*(0)*	*(0)*	*(-150)*
Construction		0		0		0		0
Buildings and Facilities		0		0		0		0
Total, NIMH	555	$1,419,654	558	$1,433,651	558	$1,489,417	0	$55,766

[1] All items in italics and brackets are non-add entries.

Major Changes in the Fiscal Year 2016 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 2016 President's Budget request for NIMH, which is $55.766 million more than the FY 2015 level, for a total of $1,489.417 million.

Brain Research through Advancing Innovative Neurotechnologies (BRAIN)
In FY 2016, NIH will continue to increase funding for the BRAIN program which is a large-scale effort to equip researchers with fundamental insights necessary for treating a wide variety of devastating brain disorders like Alzheimer's, schizophrenia, autism, epilepsy, and traumatic brain injury. Funding for this program began in FY 2014 and additional funds were provided by Congress in FY 2015. This budget request includes a total of $70 million in new funding, bringing the NIH BRAIN funding to $135 million. As one of the leaders of the BRAIN, NIMH will be funding a total of $48.2 million for this initiative in FY 2016, an increase of $23 million above FY 2015 to support this priority.

Precision Medicine Initiative ($5.126 million)
NIH proposes to launch a national research cohort of one million or more Americans – to propel our understanding of health and disease and set the foundation for a new way of doing research through engaged participants and open, responsible data sharing. Participants who voluntarily choose to join this effort will be able to share their genomic data, biological specimens, and behavioral data, and, if they choose, link it to their electronic health records (EHRs), taking advantage of the latest in social media and mobile applications, and with appropriate privacy protections in place. Bona fide researchers from across the country will have access to data voluntarily provided, thereby crowdsourcing rich data to the brightest minds in biomedical research. The cohort will be built largely by linking existing cohorts together taking advantage of infrastructure, data security and expertise already in place. NIH will help to connect these existing cohorts, but the current sponsors of the cohorts will maintain their ownership and management. Research on this scale promises to lead to new prevention strategies, novel therapeutics and medical devices, and improvements in how we prescribe drugs – on an individual and personalized basis. NIH is requesting a total of $130 million to launch this initiative, of which NIMH requests $5.126 million.

Research Project Grants (RPGs) (+$47.347 million; total $964.256 million):
NIMH will support a total of 2,073 Research Projects Grants (RPGs) in FY 2016. Noncompeting RPGs will increase by 9 awards or $20.886 million over FY 2015. Administrative supplements will decrease by 14 supplements or $2.001 million. Competing RPG awards will increase by 57 awards or $24.955 million. SBIR/STTR RPGs will increase by 5 awards or $3.506 million over FY 2015.

Research Centers (+$5.126 million; total $80.197 million):
NIMH requests $5.126 million to support the NIH Precision Medicine Initiative.

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health

Summary of Changes

(Dollars in Thousands)

FY 2015 Enacted				$1,433,651
FY 2016 President's Budget				$1,489,417
Net change				$55,766
CHANGES	**FY 2016 President's Budget**		**Change from FY 2015**	
	FTEs	**Budget Authority**	**FTEs**	**Budget Authority**
A. Built-in:				
1. Intramural Research:				
a. Annualization of January 2015 pay increase & benefits		$56,468		$229
b. January FY 2016 pay increase & benefits		56,468		339
c. One more day of pay (n/a for 2015)		56,468		243
d. Differences attributable to change in FTE		56,468		0
e. Payment for centrally furnished services		30,957		755
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		78,860		891
Subtotal				$2,457
2. Research Management and Support:				
a. Annualization of January 2015 pay increase & benefits		$36,577		$77
b. January FY 2016 pay increase & benefits		36,577		275
c. One more day of pay (n/a for 2015)		36,577		184
d. Differences attributable to change in FTE		36,577		0
e. Payment for centrally furnished services		8,572		209
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		28,572		521
Subtotal				$1,267
Subtotal, Built-in				$3,724

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health

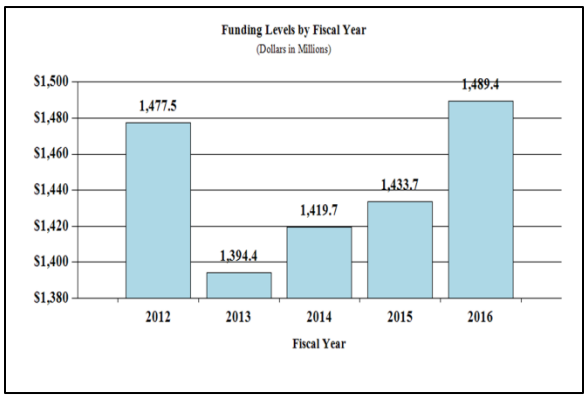
Summary of Changes - Continued

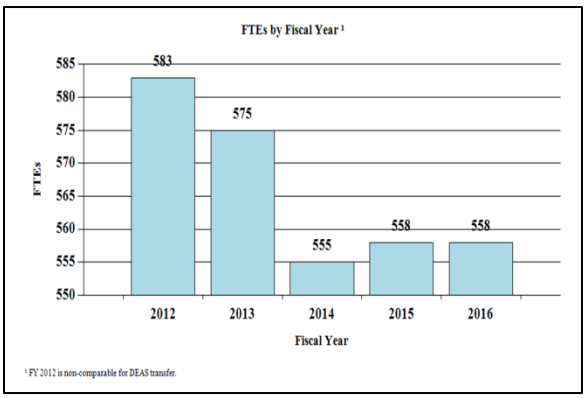
(Dollars in Thousands)

CHANGES	FY 2016 President's Budget		Change from FY 2015	
	No.	Amount	No.	Amount
B. Program:				
1. Research Project Grants:				
a. Noncompeting	1,404	$667,369	9	$18,886
b. Competing	582	253,808	57	24,955
c. SBIR/STTR	87	43,079	5	3,506
Subtotal, RPGs	2,073	$964,256	71	$47,347
2. Research Centers	45	$80,197	2	$5,126
3. Other Research	404	80,179	0	0
4. Research Training	725	35,918	-14	0
5. Research and development contracts	164	88,862	0	918
Subtotal, Extramural		$1,249,412		$53,390
	FTEs		FTEs	
6. Intramural Research	279	$166,284	0	-$811
7. Research Management and Support	279	73,721	0	-537
8. Construction		0		0
9. Buildings and Facilities		0		0
Subtotal, Program	558	$1,489,417	0	$52,042
Total changes				$55,766

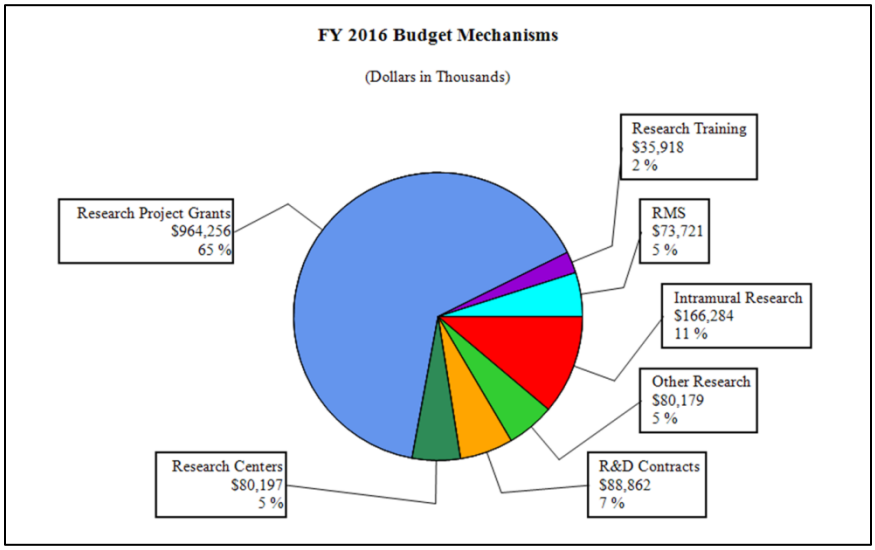
Fiscal Year 2016 Budget Graphs

History of Budget Authority and FTEs:

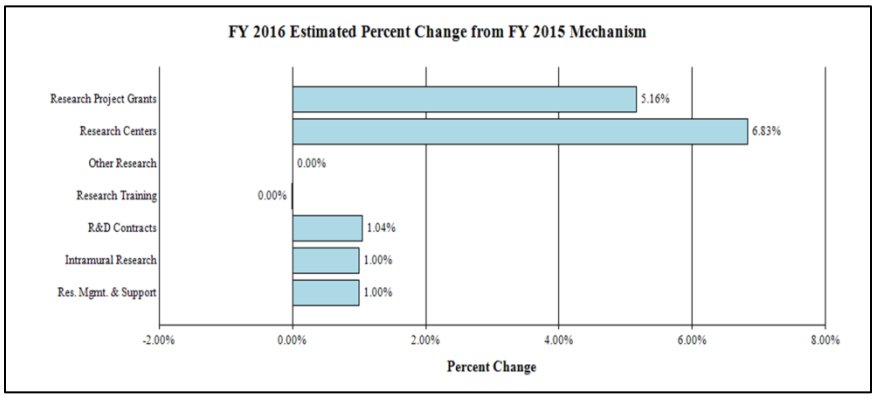




Distribution by Mechanism:



Change by Selected Mechanism:



NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health

Budget Authority by Activity[1]
(Dollars in Thousands)

	FY 2014 Actual		FY 2015 Enacted		FY 2016 President's Budget		FY 2016 +/- FY2015	
Extramural Research	**FTE**	**Amount**	**FTE**	**Amount**	**FTE**	**Amount**	**FTE**	**Amount**
Detail								
Neuroscience & Basic Behavioral Science		$492,867		$504,860		$541,401		36,541
Services & Intervention Research		142,476		142,476		145,273		2,797
Translational Research		373,306		373,306		380,635		7,329
AIDS Research		146,030		145,602		152,325		6,723
Office of the Director		29,778		29,778		29,778		0
Subtotal, Extramural		**$1,184,457**		**$1,196,022**		**$1,249,412**		**$53,390**
Intramural Research	**275**	**$163,008**	**279**	**$164,638**	**279**	**$166,284**	**0**	**$1,646**
Research Management & Support	**280**	**$72,189**	**279**	**$72,991**	**279**	**$73,721**	**0**	**$730**
TOTAL	**555**	**$1,419,654**	**558**	**$1,433,651**	**558**	**$1,489,417**	**0**	**$55,766**

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

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health

Authorizing Legislation

	PHS Act/ Other Citation	U.S. Code Citation	2015 Amount Authorized	FY 2015 Enacted	2016 Amount Authorized	FY 2016 President's Budget
Research and Investigation	Section 301	42§241	Indefinite	$1,433,651,000	Indefinite	$1,489,417,000
National Institute of Mental Health	Section 401(a)	42§281	Indefinite		Indefinite	
Total, Budget Authority				$1,433,651,000		$1,489,417,000

NATIONAL INSTITUTES OF HEALTH
National Institute of Mental Health

Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
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	$1,429,446,000
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		$1,483,687,000	$1,480,265,001
Rescission				($2,960,530)
Sequestration				($74,299,124)
2014	$1,465,782,000		$1,456,041,000	$1,446,172,000
Rescission				$0
2015	$1,440,076,000			$1,463,036,000
Rescission				$0
2016	$1,489,417,000			

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 2014 Actual	FY 2015 Enacted	FY 2016 President's Budget	FY 2016 +/- FY 2015
BA	$1,419,653,941	$1,433,651,000	$1,489,417,000	+$55,766,000
FTE	555	558	558	+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 illnesses, 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 43.7 million adults suffer from a mental illness.[1] Based on the most recent estimates, mental illnesses accounted for 21.3 percent of all years lived with disability in the United States. Accounting for the loss of more than 39,000 American lives each year, suicide is the second leading cause of death in youth and young adults aged 15-34, and is the tenth leading cause of death overall in the United States.[2] A cautious estimate places the direct and indirect financial costs associated with mental illness in the United States, at well over $300 billion annually, and mental illnesses ranks as the third most costly medical conditions in terms of overall health care expenditure, behind only heart conditions and traumatic injury.[3,4] Mental illnesses are significantly impairing and life-threatening. In response to tremendous technological advances and a shifting health care landscape, NIMH is revising its Strategic Plan, first released in 2008. Guided by this revised Strategic Plan, NIMH will support initiatives in FY 2016 that expand basic brain and behavioral research across development; translate basic findings into innovative treatments; and, capitalize on the opportunities in new technology, big data, and data sharing.

[1] SAMHSA, Results from the 2012 National Survey on Drug Use and Health: Mental Health Findings, NSDUH Series H-47, HHS Publication No. (SMA) 13-4805. Rockville, MD: SAMHSA, 2013.
[2] CDC, NCIPC. WISQARS: www.cdc.gov/ncipc/wisqars accessed October 2014.
[3] Insel TR. Assessing the economic cost of serious mental illness. Am J Psychiatry. 2008 Jun;165(6):663-5.
[4] Soni A. The Five Most Costly Conditions, 1996 and 2006: Estimates for the U.S. Civilian Noninstitutionalized Population. Statistical Brief #248. July 2009. AHRQ, Rockville, MD.

Applying Basic Research to the Pursuit of Health Discoveries

The Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative is supporting the creation of new tools for decoding the language of the brain. Co-led by NIMH and the National Institute of Neurological Disorders and Stroke (NINDS), the BRAIN Initiative released the first round of funding opportunities in 2013, and awarded the first grants in September 2014.[5,6] The tools and technologies developed through the BRAIN Initiative will deepen our understanding of the brain's structure and function, and will also give us new approaches to map aberrant brain activity associated with mental illnesses.

NIMH investments in basic neuroscience research have built a foundation for the BRAIN Initiative. For example, NIMH-funded researchers have created a new genome editing method using CRISPR (Clustered Regularly InterSpaced Palindromic Repeats) which employs an enzyme purified from bacteria to edit DNA so that a genetic sequence can be altered quickly, accurately, and inexpensively in a cell. This method can be used to insert a gene of interest (e.g., for autism or schizophrenia) into adult stem cells, which are then differentiated into neurons in the hope of discovering how these diseases may alter neural development.[7] The resulting neurons can, and are, being tested for a number of other neurodevelopmental disorders for which we already know the genetic cause.

Another illustration of the power of this approach involves the role of the synapse – the point of connection between neurons – in mental illnesses. Researchers funded by NIMH and NINDS demonstrated in patients' cells how a rare mutation in a suspect gene for schizophrenia disrupts the turning on and off of dozens of other genes underlying these connections.[8] The researchers first induced a patient's skin cells to revert to stem cells, and then coaxed these cells to differentiate into neurons, which could be studied in a petri dish. This makes it possible to pinpoint how a particular patient's mutation might impair synapses. Together with CRISPR, this work illustrates how basic research can uncover new targets for treatment development.

Improving Health through Precise Medicine and Widespread Sharing

Beating a successful path to better treatments requires more precise diagnostics, valid targets, personalized strategies, and methods to scale interventions for broad impact. The NIMH-funded Psychiatric Genomics Consortium, the largest ever genomic dragnet of any psychiatric disorder – involving over 200,000 samples from 80 institutions across 25 countries – has taken a massive leap forward in developing precision medicine for schizophrenia. The consortium unmasked 108 chromosomal sites harboring inherited variations linked to the clinical diagnosis of schizophrenia, of which 83 were new discoveries.[9] Although not yet sensitive enough to be used clinically as a predictive test, the findings confirm that it is possible to develop risk profile scores based on schizophrenia-associated variants that may be useful in research.

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[5] See: http://www.nih.gov/news/health/dec2013/nih-17.htm
[6] See: http://www.nih.gov/news/health/sep2014/od-30.htm
[7] Cong L, et al. Multiplex genome engineering using CRISPR/Cas systems. *Science.* 2013;339(6121):819-23.
[8] See: http://www.nimh.nih.gov/news/science-news/2014/suspect-gene-corrupts-neural-connections.shtml and http://www.ncbi.nlm.nih.gov/pubmed/25132547.
[9] See: http://www.nimh.nih.gov/news/science-news/2014/schizophrenias-genetic-skyline-rising.shtml

The NIMH Research Domain Criteria (RDoC) project expands precision (also known as stratified) medicine – an approach which subdivides patients into groups based on their risk of developing specific diseases or their response to particular therapies – to all areas of mental health research. Started in 2009, this project is of high importance to the Institute – so much so, that NIMH has created an RDoC unit within its Office of the Director. In contrast to current symptom-based diagnostic systems for mental illnesses, RDoC integrates multiple levels of information for each patient to define a precise diagnosis. RDoC enables clinical investigators to think outside the box of current diagnostic categories, and encourages basic scientists to identify mechanisms of specific domains of mental function. Information from the RDoC project is aggregated into the new Research Domain Criteria Database (RDoCdb), which will enable extensive sharing of research data.

RDoCdb is part of a significant Institute effort to promote data sharing: NIMH has federated a series of data repositories – referred to in aggregate as the NIMH Data Repositories – to store data collected from participants in a variety of studies. In addition to RDoCdb, the NIMH Data Repositories will include the already successful National Database for Autism Research (NDAR) and NIH Pediatric MRI Data Repository, as well as the new National Database for Clinical Trials Related to Mental Illness (NDCT). NIMH expects individual-level data from trials funded through a series of NIMH initiatives to be shared via NDCT, but anticipates expanding that expectation to other NIMH-funded clinical research in the future.[10]

Preparing a Diverse and Talented Biomedical Research Workforce

All the data in the world are of no use without trained researchers able to use them. NIMH is committed to inspiring the next generation of committed scientists. The Institute has issued an initiative to support advanced research opportunities for individuals holding an M.D./Ph.D. degree who are early in their research careers, with the goal of helping these individuals transition efficiently and effectively from the period of clinical training to the next stage of their research careers.[11] The Institute's highly successful Biobehavioral Research Awards for Innovative New Scientists (BRAINS) helps exceptional early-career scientists launch innovative research programs that have the potential to transform mental health research.[12] NIMH has re-issued the BRAINS funding opportunity through FY 2017.

NIMH encourages the recruitment, training, and retention of outstanding physician-scientists from diverse backgrounds. Thus, NIMH continues to fund efforts to improve the diversity of the mental health research workforce by supporting and recruiting early stage investigators from groups that have been shown to be underrepresented in scientific disciplines relevant to mental health research on a national basis.[13] NIMH has also released a mentored career development initiative to support intensive, supervised training that facilitates the entry of early career investigators into the field of global mental health research and leads to research independence.[14]

[10] See: http://grants.nih.gov/grants/guide/notice-files/NOT-MH-14-015.html
[11] See: http://grants.nih.gov/grants/guide/pa-files/PA-14-263.html.
[12] See: http://grants.nih.gov/grants/guide/rfa-files/RFA-MH-15-600.html.
[13] See: http://grants.nih.gov/grants/guide/notice-files/NOT-MH-12-019.html.
[14] See: http://grants.nih.gov/grants/guide/rfa-files/RFA-MH-14-120.html.

Overall Budget Policy:
The FY 2016 President's Budget request is $1,489.417 million, an increase of $55.766 million, or 3.9 percent above the FY 2015 level.

Program Descriptions

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 diagnose, treat, and prevent mental illnesses.

NIMH funds grants across a range of research topics to facilitate our understanding of the basic neurobiology underlying mental illnesses. In FY 2016, DNBBS will support studies to develop measures of brain function that can be used in humans and in other species, in order to provide a more reliable way to discover and test potential new medicines for mental illnesses. Similarly, the Division will support studies employing cutting-edge bioinformatics tools to analyze a variety of data types, with the goal of understanding the roles and contributions of genetic, genomic, and epigenetic and other non-genetic factors in the biological mechanisms underlying multiple mental disorders. In addition, DNBBS will support research to develop and test the use of brain electrical signals (such as electroencephalograms) to help to categorize individuals with autism spectrum disorder (ASD) into subgroups with shared biological signatures.

Budget Policy:
The FY 2016 President's Budget estimate is $541.401 million, an increase of $36.541 million, or 7.2 percent above the FY 2015 level. The increase includes funding for the BRAIN and Precision Medicine Initiatives.

Program Portrait: Advancing the Range of Autism Spectrum Disorder Research
FY 2015 Level: $114.230 million
FY 2016 Level: $115.886 million
Change : +$ 1.656 million

In FY 2014, the Centers for Disease Control and Prevention reported that autism spectrum disorder (ASD) affects 1 in 68 children in the United States, based on data collected from health and special education records of children living in 11 areas of the U.S. during 2010. Boys are five times as likely as girls are to have ASD. NIH is both funding an aggressive search for the causes of ASD and working to improve detection, treatments, and services. NIH efforts, as well as all Federal ASD research efforts, follow the roadmap provided by the Strategic Plan for ASD Research of the Interagency Autism Coordinating Committee (IACC), a federal advisory committee established under the Children's Health Act and reauthorized under the Combating Autism Act of 2006, the Combating Autism Reauthorization Act of 2011, and the Autism Collaboration, Accountability, Research, Education, and Support (CARES) Act of 2014, which reauthorized the IACC through September 30, 2019. The IACC Strategic Plan for ASD Research serves as the roadmap for federal ASD research. All NIH-funded ASD investigators who are collecting data from human participants are expected to share those data via the NIH National Database for Autism Research.

New ASD research initiatives include an enhanced emphasis on services, in line with the objectives of the 2013 IACC Strategic Plan and the Autism CARES Act. In September 2014, NIMH awarded 12 research grants aimed at developing effective, real-world-ready approaches to providing early diagnosis, treatment, and supportive services for people with ASD. These grants are part of a broad NIMH research effort to provide models for the delivery of needed services to children, youth, and adults with ASD, across different communities and care settings, appropriate to each age and individual. The funded projects will evaluate the success of efforts to provide services to the broadest population of people with ASD, including those from ethnically diverse and low-income populations.

September 2014 also saw the release of an NIMH funding initiative to solicit a broad, multi-site research consortium to assess and validate a set of measures that can be used as stratification biomarkers and/or as sensitive, reliable, and objective measures of social impairment in ASD clinical trials involving school-age children.

Translational Research

At the beginning of FY 2015, NIMH merged the Division of Developmental Translational Research and the Division of Adult Translational Research and Treatment Development into a unified Division of Translational Research (DTR). This change is intended to promote a more seamless and effective integration of the science across all stages of development, given the recognition that almost all mental illnesses can be considered as reflecting the mutual interactions of genetic risk, trajectories of neurodevelopment, and environmental factors. Through DTR, NIMH supports integrative, multidisciplinary research programs and training that translate basic science into the causes, mechanisms, and trajectories of mental illnesses, and develop effective interventions for children and adults. DTR supports research on the phenotypic characterization and risk factors for psychiatric disorders; the neurobehavioral mechanisms of psychopathology; the trajectories of risk and resilience based on the interactive influences of genetics, brain development, environment, and experience; and the design and testing of innovative treatments and interventions.

DTR emphasizes NIMH's new direction for clinical trials research by focusing on an experimental therapeutics approach.[15] This new approach is aimed at expediting development of the most promising treatments and efficiently generating actionable information about the underlying mechanisms of mental illnesses. For example, in FY 2014, NIMH funded six clinical trials under contracts aimed at streamlined testing of promising candidate treatments for disorders of the psychotic spectrum, the mood and anxiety spectrum, the autism spectrum, and treatment-resistant depression. In FY 2014, NIMH released seven new clinical trials funding announcements, and as of FY 2015, all new clinical trials are funded through these announcements. Further, in FY 2015 NIMH implemented revised policies to improve the efficiency of oversight of NIMH-funded clinical trials. These policies set clear standards for both the assessment of risk and the approach to monitoring participant safety in clinical studies.

DTR is also leading an initiative begun in FY 2015 to investigate the structural and functional changes that occur in the brain during typical development, extending the Human Connectome Project (HCP), formerly focused on adults, to children and adolescents. This expansion will enhance the clinical relevance of the data and provide benchmarks for understanding the causes of human brain disorders. The NIH Blueprint for Neuroscience Research will support this effort along with a companion initiative to extend the HCP to older adults. These combined efforts will utilize state-of-the-art neuroimaging technology to create a reference atlas, with unprecedented resolution, of the maturation and progression of structural and functional connectivity across the lifespan that will provide a benchmark to inform understanding of pathological brain development and aging. Data from over 500 individuals are currently available online, with data from an additional 1200 individuals anticipated by June 2015.

Budget Policy:
The FY 2016 President's Budget estimate is $380.635 million, an increase of $7.329 million, or 2.0 percent above the FY 2015 level.

[15] See: http://www.nimh.nih.gov/about/director/2014/a-new-approach-to-clinical-trials.shtml.

Program Portrait: Research Domain Criteria Project—A Portal to Precision Medicine
FY 2015 Level: $45.586 million
FY 2016 Level: $48.257 million
Change : +$2.672 million

NIMH launched the Research Domain Criteria (RDoC) project to implement Strategy 1.4 of the 2008 NIMH Strategic Plan. Strategy 1.4 called for the development of new ways of classifying mental illnesses – for research purposes – that are based on dimensions of observable behavior and neurobiological measures.

Since its inception in 2009, the RDoC concept has undergone a remarkable metamorphosis. Through a series of interdisciplinary workshops, NIMH developed a matrix of levels of analysis (from molecules to genes to neural circuits to self-reported experiences) for several domains of functioning (cognitive, positive valence, negative valence, social processes, arousal and regulatory systems). All of these domains are examined in a context emphasizing developmental trajectories and the individual's interactions with his or her environment. The RDoC matrix has become a framework for organizing the Institute's translational research efforts, as it releases scientists from the confines of traditional diagnostic categories that have proven to be heterogeneous. As an example, recent studies of psychosis, mood disorders, and attention deficit-hyperactivity disorder demonstrate new ways to group patients based on genomics, cognitive dimensions, physiological traits, or imaging findings. RDoC assumes these new clusters will not only provide more precise diagnostic categories, but also that they will produce better guidance for treatment, and ultimately, better outcomes. RDoC is not intended to replace the Diagnostic and Statistical Manual or the International Classification of Diseases. Rather, RDoC is an experiment to determine if a diagnostic approach based on biology, behavior, and context will be useful for mental illnesses. If this experiment is successful, we hope RDoC will inform the diagnostic systems of the future.

As both a research framework and a big data initiative, RDoC relies heavily on input from the scientific community, providers, patients, and families to achieve its goals. To facilitate these interactions, NIMH is creating an online RDoC Discussion Forum. The Forum will facilitate conversations between researchers and clinicians to further refine the RDoC framework and highlight ongoing and completed RDoC research. As described above, NIMH expects that data generated from the RDoC project will be submitted to the RDoC Database (RDoCdb), enabling widespread sharing and mining of NIMH research data on mental illnesses.

This initiative is complementary to the broader $200 million Precision Medicine Initiative being launched across NIH in FY 2016.

Services and Intervention Research

The Division of Services and Intervention Research (DSIR) supports research that evaluates the effectiveness of psychosocial, pharmacological, somatic, rehabilitative, and combined interventions to prevent or treat mental and behavioral disorders. DSIR evaluates interventions for children, adolescents, and adults, focusing on acute and long-term symptom reduction, remission, and improved community functioning. DSIR 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.

DSIR supports research that will improve outcomes among persons with schizophrenia spectrum disorders and reduce the burden of suicide. The Recovery After an Initial Schizophrenia Episode (RAISE) initiative aims to prevent long-term disability in serious mental illness through early intervention. RAISE comprises two complementary efforts: the Early Treatment Program, which is continuing to follow patients for an additional three to four years to investigate the long-term impact of early intervention; and, the Connection Program, which successfully integrated team-based, multi-element services targeting the first episode of psychosis (FEP) in mental

health systems in New York and Maryland, and is now evaluating promising strategies for reducing the duration of untreated psychosis among persons experiencing FEP. In FY 2014, DSIR staff collaborated with the Substance Abuse and Mental Health Services Administration to translate early RAISE findings into guidance for states regarding evidence-based approaches to FEP treatment, and assembled a broad range of training resources developed in RAISE for use by state-supported Community Mental Health Centers.[16]

Moving beyond FEP to earlier stages of psychosis risk, NIMH developed the Early Psychosis Prediction and Prevention (EP3) program to support research aimed at preventing psychosis onset among persons at clinical high-risk (CHR). NIMH funded five grants in FY 2014 that will inform a step-wise approach to CHR care that can be implemented rapidly in the U.S. healthcare system.

NIMH also played a key role in developing a prioritized research agenda for suicide prevention.[17] The Agenda highlights short- and long-term research activities that represent our best hope of reducing suicide deaths and attempts in the United States. NIMH has funded 12 grants that address the six key questions that organize the Agenda, and has developed a $12 million funding announcement to solicit research to improve screening and risk stratification for suicidal youth who present for care in Emergency Departments.

Budget Policy:
The FY 2016 President's Budget estimate is $145.273 million, an increase of $2.797 million, or 2.0 percent above the FY 2015 level.

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 successes in HIV prevention efforts using combination biomedical and behavioral approaches have generated tremendous optimism that a significant decrease in HIV incidence worldwide is achievable. NIMH plays a key role in these efforts by insuring that the integrated protocols include evidence-based behavioral science to achieve this goal. DAR continues to support basic behavioral and social science research to better understand both the facilitators and barriers to successful implementation of interventions to prevent further spread of HIV and to optimize outcomes in HIV-infected individuals. The Division supports research aimed at improving rates of testing, linkage, and adherence to care along the HIV treatment cascade and improving methods to monitor and improve adherence along the continuum of care. DAR is also actively participating in cure efforts with the release of a funding opportunity announcement to stimulate research on methods to eliminate HIV in infected individuals by eradicating or

[16] See: Evidence-Based Treatments for First Episode Psychosis: Components of Coordinated Specialty Care.
[17] See: http://www.suicide-research-agenda.org/.

silencing the virus from biological reservoirs in the central nervous system. 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, bringing us ever closer to an AIDS-free generation.

Budget Policy:
The FY 2016 President's Budget estimate is $152.325 million, an increase of $6.723 million, or 4.6 percent above the FY 2015 level.

Intramural Research
The Division of Intramural Research Programs (DIRP) is the internal research component of NIMH, complementing the Institute's extramural grant funding program. DIRP scientists investigate basic, translational, and clinical aspects of brain function and behavior, conducting state-of-the-art research through the use of unique NIH resources. In addition, DIRP provides an excellent environment for training the next generation of clinical and basic scientists.

In FY 2014, DIRP established the Human Brain Collection Core to facilitate research to improve the diagnosis, treatment, and prevention of mental illnesses and their consequences, including suicide, by sharing standardized, high-quality specimens and data with the greater research community. DIRP researchers continue to examine the relationship between genes, the brain, and behavior both in healthy development and in childhood-onset mental illnesses. DIRP scientists also perform extensive characterization of patients with rare diseases, including high-resolution brain imaging and molecular genetic analyses. On the intervention end of the spectrum, DIRP researchers explore novel medications for treatment-resistant depression, including ketamine and other experimental fast-acting antidepressant medications, and identify biomarkers for predicting how well an individual with depression will respond to such rapid-acting antidepressants.

Budget Policy:
The FY 2016 President's Budget estimate is $166.284 million, an increase of $1.646 million or 1.0 percent over the FY 2015 level.

Research Management and Support (RMS)
The RMS program provides leadership to the Institute, as well as the administrative, budgetary, logistical, and scientific support in the review, award, and monitoring of research grants, training grants, and research and development contracts. RMS functions include strategic planning, coordination, and evaluation of the Institute's programs; regulatory compliance; international coordination; and, liaising with other Federal agencies, Congress, and the public. In FY 2014, NIMH managed 2,513 research grants, 244 training grants that supported 755 full-time trainee positions, and 182 research and development contracts.

NIMH leadership has charged the administrative staff to continue to strengthen the NIMH Continuation of Operations Plan. This plan ensures that the essential functions of the Institute are identified, with procedures in place and ready for activation, in order to maintain these essential functions in response to an event which could cause a disruption in normal work activity. Such events could include a threat or occurrence of a terrorist attack, a localized

situation (e.g., a building emergency or natural disaster), or any situation making it impossible for employees to work in their regular facility.

Budget Policy:
The FY 2016 President's Budget estimate is $73.721 million, an increase of $0.730 million or 1.0 percent over the FY 2015 level.

NATIONAL INSTITUTES OF HEALTH
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Budget Authority by Object Class[1]
(Dollars in Thousands)

	FY 2015 Enacted	FY 2016 President's Budget	FY 2016 +/- FY 2015
Total compensable workyears:			
Full-time employment	558	558	0
Full-time equivalent of overtime and holiday hours	0	0	0
Average ES salary	$177	$178	$1
Average GM/GS grade	12.3	12.3	0.0
Average GM/GS salary	$104	$105	$1
Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207)	$129	$130	$1
Average salary of ungraded positions	$144	$145	$1
OBJECT CLASSES	**FY 2015 Enacted**	**FY 2016 President's Budget**	**FY 2016 +/- FY 2015**
Personnel Compensation			
11.1 Full-Time Permanent	$40,453	$41,012	$560
11.3 Other Than Full-Time Permanent	22,225	22,532	307
11.5 Other Personnel Compensation	1,314	1,332	18
11.7 Military Personnel	257	261	4
11.8 Special Personnel Services Payments	8,142	8,255	113
11.9 Subtotal Personnel Compensation	**$72,391**	**$73,392**	**$1,001**
12.1 Civilian Personnel Benefits	$19,354	$19,548	$194
12.2 Military Personnel Benefits	103	105	1
13.0 Benefits to Former Personnel	0	0	0
Subtotal Pay Costs	**$91,849**	**$93,045**	**$1,196**
21.0 Travel & Transportation of Persons	$2,335	$2,335	$0
22.0 Transportation of Things	116	116	0
23.1 Rental Payments to GSA	0	0	0
23.2 Rental Payments to Others	0	0	0
23.3 Communications, Utilities & Misc. Charges	1,067	1,067	0
24.0 Printing & Reproduction	35	35	0
25.1 Consulting Services	$1,975	$1,975	$0
25.2 Other Services	22,625	22,628	3
25.3 Purchase of goods and services from government accounts	143,647	154,033	10,386
25.4 Operation & Maintenance of Facilities	$1,743	$1,743	$0
25.5 R&D Contracts	40,901	32,610	-8,291
25.6 Medical Care	251	250	0
25.7 Operation & Maintenance of Equipment	3,554	3,554	0
25.8 Subsistence & Support of Persons	0	0	0
25.0 Subtotal Other Contractual Services	**$214,696**	**$216,793**	**$2,098**
26.0 Supplies & Materials	$8,041	$8,041	$0
31.0 Equipment	7,435	7,435	0
32.0 Land and Structures	0	0	0
33.0 Investments & Loans	0	0	0
41.0 Grants, Subsidies & Contributions	1,108,078	1,160,550	52,472
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	**$1,341,802**	**$1,396,372**	**$54,570**
Total Budget Authority by Object Class	**$1,433,651**	**$1,489,417**	**$55,766**

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

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Salaries and Expenses
(Dollars in Thousands)

OBJECT CLASSES	FY 2015 Enacted	FY 2016 President's Budget	FY 2016 +/- FY 2015
Personnel Compensation			
Full-Time Permanent (11.1)	$40,453	$41,012	$560
Other Than Full-Time Permanent (11.3)	22,225	22,532	307
Other Personnel Compensation (11.5)	1,314	1,332	18
Military Personnel (11.7)	257	261	4
Special Personnel Services Payments (11.8)	8,142	8,255	113
Subtotal Personnel Compensation (11.9)	**$72,391**	**$73,392**	**$1,001**
Civilian Personnel Benefits (12.1)	$19,354	$19,548	$194
Military Personnel Benefits (12.2)	103	105	1
Benefits to Former Personnel (13.0)	0	0	0
Subtotal Pay Costs	**$91,849**	**$93,045**	**$1,196**
Travel & Transportation of Persons (21.0)	$2,335	$2,335	$0
Transportation of Things (22.0)	116	116	0
Rental Payments to Others (23.2)	0	0	0
Communications, Utilities & Misc. Charges (23.3)	1,067	1,067	0
Printing & Reproduction (24.0)	35	35	0
Other Contractual Services:			
Consultant Services (25.1)	1,945	1,945	0
Other Services (25.2)	22,625	22,628	3
Purchases from government accounts (25.3)	88,090	89,342	1,251
Operation & Maintenance of Facilities (25.4)	1,743	1,743	0
Operation & Maintenance of Equipment (25.7)	3,554	3,554	0
Subsistence & Support of Persons (25.8)	0	0	0
Subtotal Other Contractual Services	**$117,957**	**$119,211**	**$1,254**
Supplies & Materials (26.0)	$8,041	$8,041	$0
Subtotal Non-Pay Costs	**$129,551**	**$130,805**	**$1,254**
Total Administrative Costs	**$221,400**	**$223,850**	**$2,450**

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

OFFICE/DIVISION	FY 2014 Actual			FY 2015 Est.			FY 2016 Est.		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
Division of AIDS Research									
Direct:	15	-	15	15	-	15	15	-	15
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	15	-	15	15	-	15	15	-	15
Division of Extramural Activities									
Direct:	48	-	48	48	-	48	48	-	48
Reimbursable:	1		1	1		1	1		1
Total:	49	-	49	49	-	49	49	-	49
Division of Intramural Research Programs									
Direct:	272	1	273	275	1	276	275	1	276
Reimbursable:	2		2	2		2	2		2
Total:	274	1	275	277	1	278	277	1	278
Division of Neuroscience and Basic Behavioral Science									
Direct:	25	-	25	25	-	25	25	-	25
Reimbursable:	3		3	3		3	3		3
Total:	28	-	28	28	-	28	28	-	28
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
Division of Translational Research									
Direct:	34		34	34		34	34		34
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	34		34	34		34	34		34
Office of the Director									
Direct:	124	-	124	124	-	124	124	-	124
Reimbursable:	9		9	9		9	9		9
Total:	133	-	133	133	-	133	133	-	133
Total	553	2	555	556	2	558	556	2	558
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
2012	12.3
2013	12.3
2014	12.3
2015	12.3
2016	12.3

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Detail of Positions[1]

GRADE	FY 2014 Actual	FY 2015 Enacted	FY 2016 President's Budget
Total, ES Positions	0	1	1
Total, ES Salary	0	176,829	178,155
GM/GS-15	65	65	65
GM/GS-14	70	70	70
GM/GS-13	94	94	94
GS-12	61	61	61
GS-11	51	51	51
GS-10	1	1	1
GS-9	31	31	31
GS-8	13	13	13
GS-7	15	15	15
GS-6	3	3	3
GS-5	0	0	0
GS-4	0	0	0
GS-3	2	2	2
GS-2	0	0	0
GS-1	0	0	0
Subtotal	406	406	406
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	157	159	159
Total permanent positions	408	409	409
Total positions, end of year	568	569	569
Total full-time equivalent (FTE) employment, end of year	555	558	558
Average ES salary	0	176,829	178,155
Average GM/GS grade	12.3	12.3	12.3
Average GM/GS salary	103,077	104,108	105,149