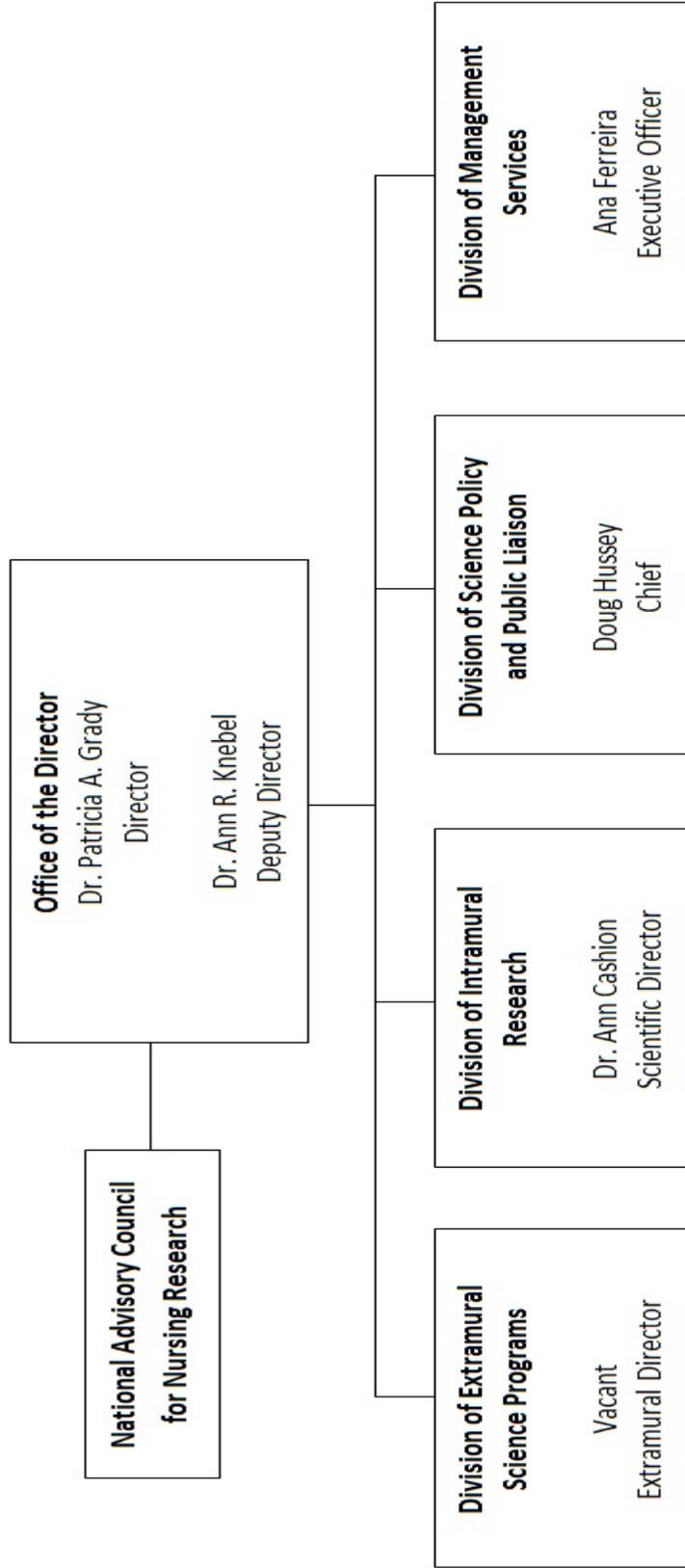


DEPARTMENT OF HEALTH AND HUMAN SERVICES
NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research (NINR)

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National Institutes of Health
National Institute of Nursing Research
Organizational Chart



NATIONAL INSTITUTES OF HEALTH

National Institute of Nursing Research

For carrying out section 301 and title IV of the PHS Act with respect to nursing research,
[140,953,000]*\$144,515,000*.

NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research

Amounts Available for Obligation¹
(Dollars in Thousands)

Source of Funding	FY 2014 Actual	FY 2015 Enacted	FY 2016 President's Budget
Appropriation	\$140,517	\$140,953	\$144,515
Type 1 Diabetes	0	0	0
Rescission	0	0	0
Sequestration	0	0	0
FY 2014 First Secretary's Transfer	-353	0	0
FY 2014 Second Secretary's Transfer	-28	0	0
Subtotal, adjusted appropriation	\$140,136	\$140,953	\$144,515
OAR HIV/AIDS Transfers	0	-101	0
National Children's Study Transfers	462	0	0
Subtotal, adjusted budget authority	\$140,598	\$140,852	\$144,515
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	0	0	0
Subtotal, adjusted budget authority	\$140,598	\$140,852	\$144,515
Unobligated balance lapsing	-45	0	0
Total obligations	\$140,553	\$140,852	\$144,515

¹ Excludes the following amounts for reimbursable activities carried out by this account:
FY 2014 - \$54 FY 2015 - \$100 FY 2016 - \$100

**NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research**

Budget Mechanism - Total¹

(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
<u>Research Projects:</u>								
Noncompeting	158	\$68,808	167	\$70,403	158	\$70,556	-9	\$153
Administrative Supplements	<i>(4)</i>	268	<i>(2)</i>	100	<i>(2)</i>	100	<i>(0)</i>	0
<u>Competing:</u>								
Renewal	4	2,129	4	2,129	4	2,129	0	0
New	49	20,359	45	18,464	51	20,981	6	2,517
Supplements	0	0	0	0	0	0	0	0
Subtotal, Competing	53	\$22,488	49	\$20,593	55	\$23,110	6	\$2,517
Subtotal, RPGs	211	\$91,565	216	\$91,097	213	\$93,766	-3	\$2,669
SBIR/STTR	10	3,586	10	3,678	11	3,963	1	285
Research Project Grants	221	\$95,151	226	\$94,775	224	\$97,729	-2	\$2,955
<u>Research Centers:</u>								
Specialized/Comprehensive	10	\$3,779	10	\$4,019	10	\$3,879	0	-\$140
Clinical Research	0	0	0	0	0	0	0	0
Biotechnology	0	0	0	0	0	0	0	0
Comparative Medicine	0	0	0	0	0	0	0	0
Research Centers in Minority Institutions	0	0	0	0	0	0	0	0
Research Centers	10	\$3,779	10	\$4,019	10	\$3,879	0	-\$140
<u>Other Research:</u>								
Research Careers	31	\$3,443	29	\$3,443	29	\$3,443	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	1	2,364	1	2,289	1	2,289	0	0
Other Research	32	\$5,807	30	\$5,732	30	\$5,732	0	\$0
Total Research Grants	263	\$104,737	266	\$104,525	264	\$107,340	-2	\$2,815
<u>Ruth L. Kirchstein Training Awards:</u>	<u>FTIPs</u>		<u>FTIPs</u>		<u>FTIPs</u>		<u>FTIPs</u>	
Individual Awards	57	\$1,981	57	\$2,020	57	\$2,020	0	\$0
Institutional Awards	151	7,058	151	7,216	151	7,216	0	0
Total Research Training	208	\$9,039	208	\$9,236	208	\$9,236	0	\$0
Research & Develop. Contracts <i>(SBIR/STTR) (non-add)</i>	0 <i>(0)</i>	\$4,262 <i>(18)</i>	0 <i>(0)</i>	\$4,350 <i>(24)</i>	0 <i>(0)</i>	\$4,971 <i>(24)</i>	0 <i>(0)</i>	\$621 <i>(0)</i>
Intramural Research	22	8,366	22	8,449	22	8,534	0	84
Res. Management & Support	69	14,194	70	14,291	70	14,434	0	143
<i>Res. Management & Support (SBIR Admin) (non-add)</i>	<i>(0)</i>	<i>(0)</i>	<i>(0)</i>	<i>(0)</i>	<i>(0)</i>	<i>(0)</i>	<i>(0)</i>	<i>(0)</i>
Construction		0		0		0		0
Buildings and Facilities		0		0		0		0
Total, NINR	91	\$140,598	92	\$140,852	92	\$144,515	0	\$3,663

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 detail and these highlights will not sum to the total change for the FY 2016 budget request for NINR, which is \$3.663 million greater than the FY 2015 Enacted level, for a total of \$144.515 million.

Research Project Grants (RPGs: \$2.955 million; total \$97.729 million):

NINR will support 55 competing RPG awards totaling \$23.110 million in FY 2016, an increase of 6 awards from the FY 2015 Enacted level. 158 noncompeting RPG awards totaling \$70.556 million also will be made in FY 2016, a decrease of 9 awards from the FY 2015 Enacted level.

**NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research**

Summary of Changes

(Dollars in Thousands)

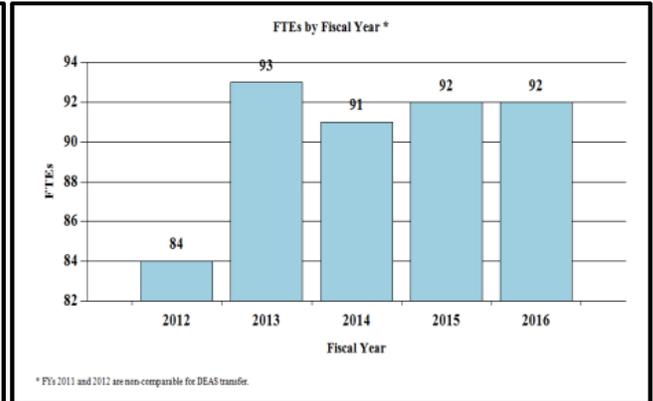
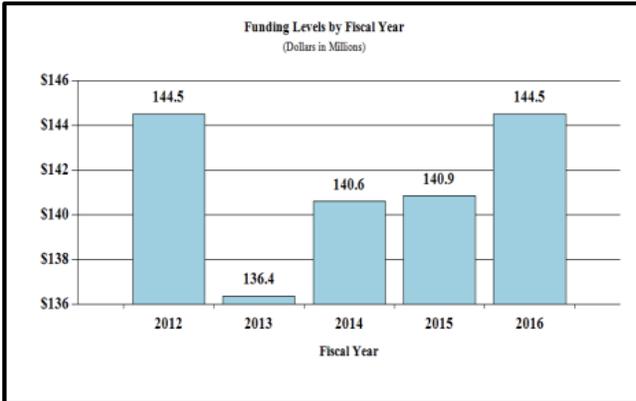
FY 2015 Enacted					\$140,852
FY 2016 President's Budget					\$144,515
Net change					\$3,663
CHANGES	FY 2016 President's Budget		Change from FY 2015		
	FTEs	Budget Authority	FTEs	Budget Authority	
A. Built-in:					
1. Intramural Research:					
a. Annualization of January 2015 pay increase & benefits		\$3,784			\$9
b. January FY 2016 pay increase & benefits		3,784			28
c. One more day of pay (n/a for 2015)		3,784			15
d. Differences attributable to change in FTE		3,784			0
e. Payment for centrally furnished services		1,282			31
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		3,467			0
Subtotal					\$83
2. Research Management and Support:					
a. Annualization of January 2015 pay increase & benefits		\$9,816			\$24
b. January FY 2016 pay increase & benefits		9,816			73
c. One more day of pay (n/a for 2015)		9,816			37
d. Differences attributable to change in FTE		9,816			0
e. Payment for centrally furnished services		1,452			35
f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs		3,167			0
Subtotal					\$169
Subtotal, Built-in					\$252

NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research
Summary of Changes – Continued
(Dollars in Thousands)

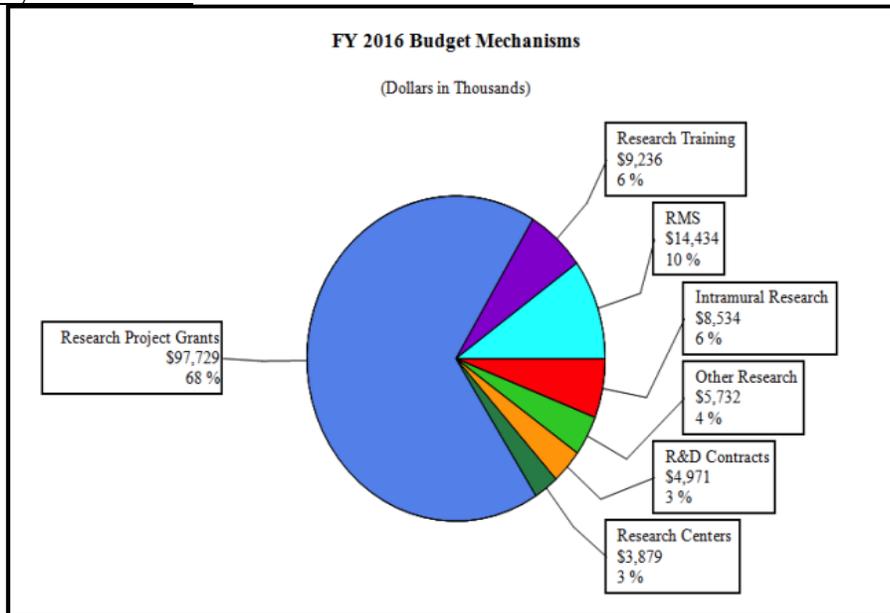
CHANGES	FY 2016 President's Budget		Change from FY 2015	
	No.	Amount	No.	Amount
<u>B. Program</u>				
1. Research Project Grants:				
a. Noncompeting	158	\$70,656	-9	\$153
b. Competing	55	23,110	6	2,517
c. SBIR/STTR	11	3,963	1	285
Subtotal, RPGs	224	\$97,729	-2	\$2,955
2. Research Centers	10	\$3,879	0	-\$140
3. Other Research	30	5,732	0	0
4. Research Training	208	9,236	0	0
5. Research and development contracts	0	4,971	0	621
Subtotal, Extramural		\$121,547		\$3,436
6. Intramural Research	<u>FTEs</u> 22	\$8,534	<u>FTEs</u> 0	\$1
7. Research Management and Support	70	14,434	0	-26
8. Construction		0		0
9. Buildings and Facilities		0		0
Subtotal, Program	92	\$144,515	0	\$3,411
Total changes				\$3,663

Fiscal Year 2016 Budget Graphs

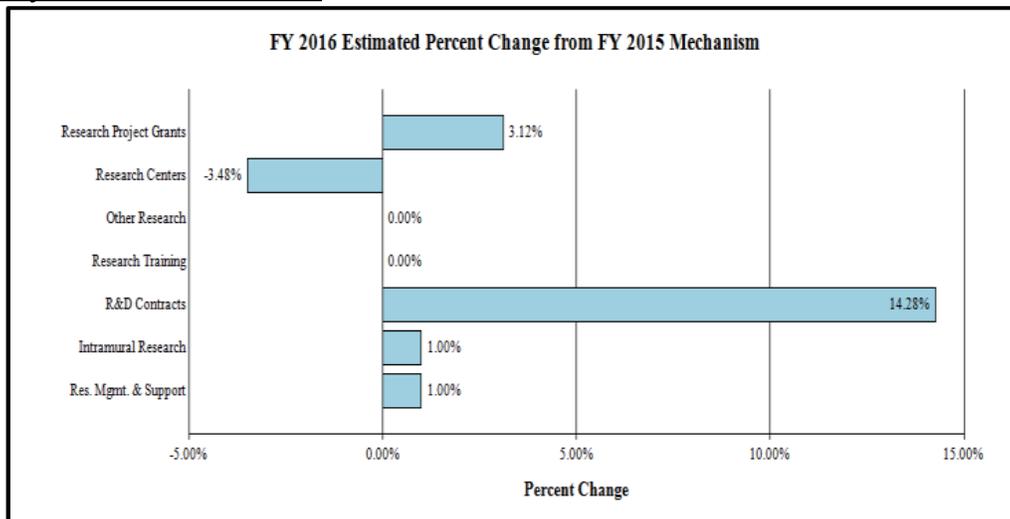
History of Budget Authority and FTEs:



Distribution by Mechanism:



Change by Selected Mechanism:



**NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research**

Budget Authority by Activity¹
(Dollars in Thousands)

	FY 2014 Actual		FY 2015 Enacted		FY 2016 President's Budget		FY 2015 +/- FY 2014	
	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>	<u>FTE</u>	<u>Amount</u>
Extramural Research								
Detail								
Quality of Life		\$37,031		\$37,054		\$38,132		\$1,078
Health Promotion and Disease Prevention		42,726		42,752		43,996		1,244
Investing in Nurse Scientists		13,993		14,001		14,409		407
Innovation		7,009		7,013		7,217		204
Palliative and End-of-Life Care		17,280		17,290		17,793		503
Subtotal, Extramural		\$118,038		\$118,112		\$121,547		\$3,436
Intramural Research	22	\$8,366	22	\$8,449	22	\$8,534	0	\$84
Research Management & Support	69	\$14,194	70	\$14,291	70	\$14,434	0	\$143
TOTAL	91	\$140,598	92	\$140,852	92	\$144,515	0	\$3,663

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

**NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research**

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	\$140,852,000	Indefinite	\$144,515,000
National Institute of Nursing Research	Section 401(a)	42§281	Indefinite		Indefinite	
Total, Budget Authority				\$140,852,000		\$144,515,000

**NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research**

Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation
2006	\$138,729,000	\$138,729,000	\$142,549,000	\$138,729,000
Rescission				(\$1,387,000)
2007	\$137,342,000	\$136,550,000	\$137,848,000	\$137,404,000
Rescission				\$0
2008	\$137,800,000	\$139,527,000	\$140,456,000	\$139,920,000
Rescission				(\$2,244,000)
2009	\$137,609,000	\$142,336,000	\$141,439,000	\$141,879,000
Rescission				\$0
Supplemental				\$731,000
2010	\$143,749,000	\$146,945,000	\$144,262,000	\$145,660,000
Rescission				\$0
2011	\$150,198,000		\$149,963,000	\$145,660,000
Rescission				(\$1,278,982)
2012	\$148,114,000	\$148,114,000	\$142,755,000	\$145,043,000
Rescission				(\$274,131)
2013	\$144,153,000		\$144,590,000	\$144,768,869
Rescission				(\$289,538)
Sequestration				(\$7,266,402)
2014	\$146,244,000		\$145,272,000	\$140,517,000
Rescission				\$0
2015	\$140,452,000			\$140,953,000
Rescission				\$0
2016	\$144,515,000			

Justification of Budget Request

National Institute of Nursing Research

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

Budget Authority:

	FY 2014 Actual	FY 2015 Enacted	FY 2016 President's Budget	FY 2016 +/- FY 2015
BA	\$140,597,819	\$140,852,000	\$144,515,000	\$3,562,000
FTE	91	92	92	0

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

Director's Overview

From premature infants in neonatal intensive care units, to adolescents living with diabetes, to elderly cancer survivors coping with pain, nursing research develops the science to help people strengthen the quality of their lives. Nurse scientists apply interdisciplinary research that transcends the boundaries of disease to better understand the experiences of individuals and families living with illness and to develop personalized approaches that maximize health and well-being for individuals at all stages of life, across diverse populations and settings.

To implement this research vision, the National Institute of Nursing Research (NINR) supports and conducts clinical and basic research to build the scientific foundation for clinical practice and to advance the science of health by:

- Exploring the mechanisms underlying symptoms of illness and developing personalized treatments that address these mechanisms through symptom science research;
- Enhancing wellness by understanding the physical, behavioral, and environmental causes of illness and developing culturally tailored interventions to prevent illness and promote health;
- Helping individuals with chronic illness better understand and manage health conditions by engaging individuals as active participants in their own health;
- Providing caregivers with better tools for fulfilling their caregiving responsibilities and maintaining their own quality of life;
- Developing palliative care strategies to help individuals and families manage symptoms of life-limiting conditions and plan for end-of-life decisions;
- Using innovative technologies to develop novel interventions that deliver personalized care and real-time health information to patients, families, and health care providers; and,
- Promoting the development of an innovative, multidisciplinary, and diverse nursing science workforce through a variety of training programs and mechanisms.

NINR-supported investigators continue to make significant progress in enhancing health and wellness. Recent scientific advances include: demonstrating that in-home training and education combined with personalized informational mailings improved the health of stroke survivors and their spousal caregivers; finding that initial low levels of social support were associated with increased depressive symptoms over time in patients with heart failure; reporting that children with irritable bowel syndrome (IBS) exhibit a different distribution of subtypes of IBS than typically found in adults with IBS; and, using electronic databases and manual chart review to demonstrate that intravenous feeding is associated with a high risk for central line-associated bloodstream infections in hospitalized patients.

NINR will continue to build on these accomplishments in FY 2016 while also supporting activities at the intersection of NINR's mission and the research themes established by the NIH Director. The NIH Director's focus on translating discovery into health is reflected in NINR's support of research to advance quality of life, from studies that explore the molecular underpinnings of adverse symptoms such as pain and fatigue, to clinical trials testing interventions to help patients and their caregivers manage their illness. For example, NINR supports a variety of research projects aimed at translating scientific knowledge about Alzheimer's disease and other dementias into strategies to help improve quality of life for individuals and their caregivers. In one project, a team of researchers is developing a new type of assistive technology that may reduce caregiver stress and enhance independence for people with Alzheimer's disease by sustaining their ability to dress themselves. In another project, NINR-supported researchers are testing a new intervention that uses in-home monitoring technology to link family caregivers of persons with dementia to experts for professional guidance in managing disruptive behaviors. Translating findings from studies such as these to address real-life challenges for people with Alzheimer's disease and dementia holds the potential to improve the daily lives of individuals and families in communities across the country.

Consistent with the NIH Director's emphasis on harnessing data and technology to improve health, NINR supports research using innovative data science methodologies. From electronic health records and genomics to symptom science and self-management of chronic illness, nurse scientists are at the forefront of efforts to expand data science to improve health and quality of life. For example, in one research project supported by NINR, nurse scientists are integrating a previously developed database of more than 319,000 patient discharges from urban hospitals into a research data registry linked to a large health care system; this methodology will allow them to study the relative effectiveness of practices to reduce healthcare-associated infections. In FY 2014, NINR also sponsored the first Big Data in Symptoms Research Boot Camp at NIH, a week-long intensive training course that provided researchers with a foundation in data science methodologies. NINR is committed to supporting such research and training opportunities, allowing scientists to capitalize on a wealth of diverse sources of information to better understand the patient experience and to improve research and practice.

Reflecting the NIH Director's theme of preparing a diverse and talented research workforce, NINR continues to support a variety of training opportunities for scientists and trainees at all career levels, particularly those at an early career stage who are so critical to sustaining the future of innovative research and high quality health care. These opportunities include the NINR Summer Genetics Institute, the Graduate Partnerships Program, the Symptom Methodologies

Boot Camps, and the Minority Faculty-Student Partnership Program. NINR also devotes significant support to individual and institutional pre- and postdoctoral research fellowships, as well as career development awards. NINR has maintained a strong commitment to training the next generation of nurse scientists, and will continue this commitment to meet existing and impending health care challenges.

NINR will also continue to engage the scientific community in developing and refining a portfolio of research responsive to the needs of individuals and communities across the nation. In support of this effort, NINR launched the Innovative Questions Initiative in FY 2014, which invited leaders in nursing science, and the general public, to identify the most pressing research questions to drive nursing science forward in the next 5-10 years.

The diverse and talented scientists supported by NINR are continuing to develop the research knowledge base to build the foundation for clinical practice; to prevent disease and disability; to manage and eliminate symptoms; and, to enhance palliative and end-of-life care. Attuned to the most pressing challenges in health and wellness, NINR-supported scientists will continue to have a significant impact on the health and quality of life issues facing the Nation.

Overall IC Budget Policy:

Investigator-initiated research projects, support for new investigators, research training, and career development continue to be the Institute's highest priorities. Overall in FY 2016, NINR will maintain a strategic balance between solicitations issued to the extramural community in high-priority areas of research, and funding made available to support investigator-initiated projects. Scientific reviews, with recommendations from the National Advisory Council for Nursing Research, inform the level of recommended support for all research applications. NINR will continue to support new and early stage investigators. Intramural Research and Research Management and Support will receive a one percent increase.

The NINR will support a two percent increase for stipends levels under the Ruth L. Kirschstein National Research Service Award training program. The requested increase will help to sustain the development of a highly qualified biomedical research workforce.

Program Descriptions and Accomplishments

Symptom Science and Self-Management to Promote Quality of Life: NINR supports research to better understand and manage the symptoms of acute and chronic illness and improve quality of life for individuals and their families. NINR-supported research focuses on the biological mechanisms underlying symptoms of illness, such as pain, fatigue, and disordered sleep, as well as the design and testing of interventions to help patients, families, caregivers, and health care providers treat, prevent, and manage adverse symptoms of illness. For instance, researchers are studying the biological and psychological mechanisms underlying abdominal pain and other symptoms by exploring the interplay of the microbiome, gastrointestinal permeability, immune responses, and psychological distress in women with irritable bowel syndrome. In another study, scientists found genomic differences among children with sickle cell anemia that may be related to how well nonsteroidal anti-inflammatory drugs work to treat the disease. Another area of emphasis involves the science of self-management: the

examination of strategies that can enable individuals and their caregivers to be active in their own health care and better manage chronic illness. For example, building off the success of an earlier pilot study, researchers are investigating the effectiveness of a peer-led asthma management program to improve self-management skills, asthma control, and quality of life for inner-city adolescents in three U.S. cities with particularly high rates of pediatric asthma. In another project, researchers are partnering with a small business to devise a new system for health care office personnel who often respond to a large volume of phone calls from family members unsure about how to manage new or worsening symptoms, an especially challenging issue for caregivers of people with dementia. This project is developing and testing a user-friendly, message management system to guide these personnel in responding to calls from these caregivers, an example of an effort to improve health communications across the health care continuum.

Budget Policy:

The FY 2016 President's Budget request for this program is \$38.132 million, an increase of \$1.078 million or 2.91 percent above the FY 2015 Enacted level. In FY 2016, NINR plans to continue to address the many challenges and opportunities that exist in the areas of self-management, symptom management, and caregiving as part of a strategically balanced research portfolio.

Health Promotion and Disease Prevention: NINR supports research to discover new ways to promote health and prevent illness across health conditions, settings, and the lifespan, including in minority and underserved populations. Areas of emphasis include: understanding the physical, behavioral, and environmental causes of illness; assessing behaviors that lead to healthy lifestyle choices; and developing evidence-based interventions to promote health and wellness. For instance, one study is examining how the settings in which people live and where they seek healthcare are related to HIV testing, receipt of test results, and HIV/AIDS care; results may shed light on barriers to early detection and disparities in outcomes often experienced by groups, including racial/ethnic minorities and older adults. Another study seeks to identify the biological mechanisms that influence why some people have poor versus positive outcomes after traumatic brain injury; findings may inform development of inventions that are tailored to an individual's risk profile. An additional emphasis of NINR-supported research is on developing and testing culturally appropriate interventions to promote health and prevent disease in vulnerable groups. One study is adapting and testing the effectiveness of a primary prevention program to strengthen caregiver-child attachment and improve outcomes for at-risk American Indian children who live in stressful environments. In another study, NINR-supported investigators are studying the effectiveness of informational brochures and videos in improving knowledge about HIV/AIDS and HIV testing in emergency departments; study findings may provide information on which delivery mode (i.e., brochure or video) is most effective for English- and Spanish-speaking individuals and for those with low versus high health literacy.

Budget Policy:

The FY 2016 President's Budget request for this program is \$43.996 million, an increase of \$1.244 million or 2.83 percent above the FY 2015 Enacted level. In FY 2016, NINR will continue to strategically address health promotion and disease prevention through its research portfolio.

Program Portrait: Wellness Research across the Lifespan

FY 2015 Level: \$42.8 million
FY 2016 Level: \$44.0 million
Change: \$1.2 million

The most effective way to overcome the effects of illness is to prevent it from occurring in the first place. Across its nearly 30 years of existence, NINR has supported research to promote health and prevent illness. For example, NINR scientists are currently advancing knowledge of wellness across the entire life span through basic research and design of interventions to: enhance health in pregnancy and the early years of life; prevent poor outcomes for children and families; and help older adults stay healthy and active.

NINR-supported researchers are developing and testing interventions to address insomnia and depressive symptoms during pregnancy, which can lead to adverse outcomes for both mothers and infants. In one study, scientists are testing the effectiveness of a non-pharmacological intervention that is delivered by nurses in community clinics to treat insomnia in pregnancy and postpartum among culturally diverse populations of women. Another recent study is testing whether a pedometer-based physical activity intervention can reduce depressive symptoms during pregnancy.

Another emphasis of wellness research at NINR is on understanding the causes of illness and developing culturally tailored strategies to enhance wellness and support the needs of children and families. For example, researchers are investigating how genetic and psychological factors interact to affect the blood pressure of African American mothers and their young children, which may inform the development of interventions to reduce the risk of hypertension. Another study is assessing the effectiveness of two evidence-based parenting programs to promote healthy behaviors and reduce risky behaviors in children and their families living in urban communities that are historically underserved.

In focusing on wellness for older adults, NINR-supported scientists strive to uncover strategies for individuals to remain healthy, active, and independent as they age. One NINR-funded early stage investigator is testing the effectiveness of air filtration as an intervention to reduce exposure to air pollution and related adverse cardiovascular health effects on older residents living in a senior citizen facility. Another study is testing whether adding an exercise intervention or a pharmacologic intervention to calcium and vitamin D supplementation can help strengthen bones in older women who are at risk for osteoporosis and fractures.

NINR is committed to supporting research to achieve the goal of the best possible health for people across the life span and in diverse populations. To achieve this goal, NINR research will continue to support the development of innovative approaches to advance health and wellness for individuals, families, and communities.

End-of-Life and Palliative Care: As Americans live longer; they are increasingly likely to experience a life-limiting or serious illness. This means that individuals, families, and health care providers are faced with making difficult decisions regarding health care, relief of symptoms and suffering, and maintaining quality of life. As the lead NIH Institute for end-of-life research, NINR supports science to assist individuals, families, and health care professionals in managing the symptoms of life limiting conditions and planning for end-of-life decisions. In 2014, NINR established its Office of End-of-Life and Palliative Care Research (OEPCR) to coordinate and support on-going and future efforts in end-of-life and palliative care science. OEPCR is leading efforts to stimulate end-of life and palliative care initiatives, facilitate interdisciplinary science and collaboration, and identify opportunities for science to inform health care practice. Research supported under NINR's end-of-life and palliative care program seeks to inform high-quality care for individuals and their caregivers, improve management of pain and other symptoms, and facilitate decision-making at all stages of illness, including at the end of life. For example, recent NINR-supported projects are: examining whether a nurse-driven, interdisciplinary intervention for intensive care unit patients with advanced critical illness improves outcomes for patients and their surrogate decision makers, as well as communication with clinicians; examining how geographic, demographic, and health characteristics of children

influence use of hospice care services; and testing a psycho-educational intervention comprised of informational modules to improve knowledge of palliative care and self-management skills for patients with breast cancer. NINR also continues to support a palliative care research cooperative bringing together multidisciplinary investigators from over 53 institutions across the nation. The cooperative's mission is to develop scientifically based methods that lead to meaningful evidence for improving quality of life of individuals with advanced and/or potentially life-limiting illnesses and their caregivers, including family members and other care providers. Through these combined efforts, NINR will continue to build the science of end-of-life and palliative care to address the challenges and complex issues faced by individuals and families across the nation.

Budget Policy:

The FY 2016 President's Budget request for this program is \$17.793 million, an increase of \$503 thousand or 2.83 percent above the FY 2015 Enacted level. Given the enormous potential and great need for improving the quality of life for persons with life-limiting conditions and their caregivers, NINR plans to expand end-of-life research efforts in FY 2016 to build upon continuing accomplishments in this program area. The proposed level of funding will allow NINR to support existing commitments and fund additional awards in this critical area of research, as part of a balanced program portfolio.

Program Portrait: NINR's End-of-Life and Palliative Care Outreach Initiatives

FY 2015 Level: \$0.085 million

FY 2016 Level: \$0.131 million

Change: \$0.046 million

In addition to supporting end-of-life and palliative care research, NINR recognizes the importance of translating science by taking information learned from research and disseminating it to patients, families, and health care providers via the Institute's website and publications. To that end, NINR recently launched two new outreach initiatives to provide information and support to the general public regarding palliative and end-of-life care.

One initiative seeks to increase the use of palliative care for children with serious illness. Palliative care can reduce a child's pain, help manage other distressing symptoms, and provide important emotional support to the child and family throughout the course of an illness. However, many health care providers hesitate to recommend palliative care for their youngest patients, and parents and other caregivers are often unaware of its benefits. NINR's Palliative Care: Conversations Matter® campaign is designed to raise awareness of pediatric palliative care and to facilitate conversations about palliative care between health care providers, children living with a serious illness, and their families. The campaign includes video vignettes that offer advice to health care providers on how to initiate conversations about pediatric palliative care with families. It also includes customizable patient education sheets to help guide health care providers through conversations with patients and their families and to identify local resources and services. Campaign materials can be downloaded from NINR's website and are also available upon request.

In a second initiative, NINR developed an End-of-Life Module for NIHSeniorHealth.gov. NIHSeniorHealth, a joint effort of the National Institute on Aging and the National Library of Medicine, provides research-based health information for older adults that is presented in clear, large print, easy-to-read segments, as well as in open captioned videos that offer simple navigation. NINR's End-of-Life module contains specific information for older Americans and their caregivers facing a myriad of questions regarding death and dying, as well as information on palliative and end-of-life care. The module addresses topics such as pain and other symptoms, places and planning for end-of-life care, support for caregivers, and coping with grief. By addressing the sensitive topic of end-of-life, NINR hopes to provide the general public with practical and useful information about the most common issues faced by individuals with a life-limiting condition or serious illness and their caregivers. NINR will further expand support for these activities in FY 2016.

Innovation: New technologies are advancing at an unprecedented pace and have the potential to provide personalized care, improve health care, and facilitate communication between individuals, their families, and health care providers in ways never before possible. NINR-supported science in this area seeks to develop and adapt innovative technologies to enhance patient care, illness management, and quality of life. One project involves developing and testing a wireless sensor device, or “smart cup,” for unobtrusive, real-time monitoring of liquid nutrition intake in older adults; this new smart health technology has the potential to alert individuals and their health care professionals if treatment adjustments are needed and to improve nutrition status in older adults vulnerable to malnutrition. NINR also supports research efforts in the area of mHealth, which focuses on using mobile health tools such as smartphones to improve health. For example, researchers are testing whether a smartphone equipped with ECG monitoring capabilities and educational text messaging can improve detection and treatment of recurrent atrial fibrillation, a condition that if left untreated can lead to stroke and other poor cardiac outcomes. Another NINR-supported project is developing a robotic wheelchair system for older adults and people with disability who have limited or no hand functioning. The technology would allow them to independently control their wheelchair and, therefore, their mobility. The project will develop the foundations of a computer-based system that combines unobtrusive vision-based motion sensors and machine active-learning to develop this novel robotic wheelchair.

Budget Policy:

The FY 2016 President’s Budget request for this program is \$7.217 million, an increase of \$204 thousand or 2.83 percent above the FY 2015 Enacted level. In FY 2016, NINR plans to continue supporting research on the use and development of novel technologies that address current and future clinical care and patient management needs, and their incorporation into standard practice. This level of funding will allow NINR to cover current commitments and fund additional awards in this emerging area of research as part of a balanced portfolio.

Investing in Nurse Scientists: NINR places great emphasis on research training and career development to cultivate the next generation of nurse scientists. NINR utilizes a variety of training programs to support nurse scientists throughout their careers and to encourage earlier entry of nurses into research training programs, including trainees from underrepresented backgrounds or in the early stages of their research careers. Training mechanisms include individual and institutional pre- and post-doctoral fellowships, as well as career development awards for junior and mid-career investigators. One mechanism by which NINR promotes the development of nurse investigators is through participation in the NIH K99/R00 Pathway to Independence (PI) program, which provides mentored and independent support for promising postdoctoral scientists. The Institute has also developed a series of video modules to introduce students and early career scientists to the NIH grant application process and to provide tools and techniques for writing a successful application. As the Institute has done since its establishment, NINR will continue to devote significant effort to its training programs in order to develop an innovative and diverse workforce of nurse scientists to address the health care challenges of the future.

Budget Policy:

The FY 2016 President's Budget request for this program is \$14.409 million, an increase of \$407 thousand or 2.83 percent above the FY 2014 Enacted level. This proposed level of funding will allow NINR to cover its current commitments as well as allow new training grants to be awarded in FY 2016. In FY 2016, NINR plans to continue its commitment to developing the next generation of investigators and enhance overall research capacity in strategically important areas of research as part of a balanced program portfolio. These efforts will continue to include awards to encourage earlier entry into research careers and to expand the interdisciplinary backgrounds of new investigators.

Intramural Research Program: In operationalizing the NINR mission within its intramural research program, the NINR Division of Intramural Research (NINR-DIR) undertakes leading-edge symptom science research to determine the underlying biologic and behavioral mechanisms of symptoms associated with a variety of disorders. These efforts will inform the development of novel clinical interventions to alleviate these symptoms. The program focuses on individual variability in symptoms associated with digestive disorders, cancer-related fatigue, neuromuscular symptoms, traumatic brain injury, and post-traumatic stress disorders. For instance, NINR Intramural researchers are currently: exploring a novel, non-invasive approach for measuring gastrointestinal dysfunction at the molecular-genetic level in individuals with irritable bowel syndrome; examining how radiation-induced changes at the genetic level are related to treatment-related fatigue in prostate cancer patients; developing novel clinical outcome measures to address symptoms of various forms of congenital muscle disease, most of which have no treatment and are associated with severe morbidities and mortality; and, investigating the biological underpinnings of sleep disturbance and other symptoms in military service members and other individuals who have suffered a traumatic brain injury. The NINR-DIR also provides scientific leadership and intensive research training to enhance the biologic and physiologic research foundation of the nurse scientist workforce. For example, NINR supports a research fellows training program and several summer training initiatives. In particular, the NINR-DIR's Summer Genetics Institute provides training in molecular genetics to build the research capacity of the nursing science community and to expand clinical practice in genetics among clinicians. The Symptom Research Methodologies Boot Camp, a one-week research training course, provides a foundation in the latest research methodologies. The focus of the 2014 Boot Camp was on Big Data and featured lectures by distinguished guest speakers, classroom discussion, and hands-on training. Many graduates of NINR intramural training programs subsequently return to the extramural community as university faculty in nursing programs across the country. These scientists are increasing the research intensity and capacity of schools of nursing, serving as role models to future nurse scientists and as educators and mentors in laboratory and clinical research arenas.

Budget Policy:

The FY 2016 President's Budget request for this program is \$8.534 million, an increase of \$84 thousand or 1.0 percent above FY 2015 Enacted level. In FY 2016, this program will build on the recent accomplishments of the IRP, continuing to support innovative research to address the scientific challenges of understanding and managing adverse symptoms-or clusters of symptoms, along with environmental influences on individual health outcomes. This program will also

continue to support important training and career development opportunities for innovative investigators.

Research Management and Support: Research Management and Support (RMS) activities provide administrative, budgetary, logistical, and scientific support in reviewing, awarding, and monitoring research grants, training awards, and research and development contracts. The functions of RMS also encompass strategic planning, coordination, and evaluation of the Institute's programs, as well as communication and coordination with other federal agencies, Congress, and the public.

Budget Policy:

The FY 2016 President's Budget request for this program is \$14.434 million, an increase of \$143 thousand or 1.0 percent above FY 2015 Enacted level. In FY 2016, NINR plans to continue addressing the challenges and opportunities that exist in strategically managing a research portfolio of more than 300 grants and contracts that address areas of science critical to public health.

Program Portrait: Innovative Questions Initiative

FY 2015 Level:	\$1.5 million
FY 2016 Level:	\$1.5 million
Change:	\$0.0 million

In FY 2014, NINR launched its Innovative Questions (IQ) initiative. Inspired by similar successful efforts at NIH and other organizations, the goal of the IQ initiative was to dialogue with NINR stakeholders, including the general public, to identify novel scientific questions. NINR sought thoughts and ideas that would encourage new thinking and creativity in nursing science, explore unanswered questions, promote results-oriented research, and guide the science over the next 5 to 10 years.

The IQ initiative consisted of two components, a series of workshops and a public website. The IQ workshops brought together leading scientists and interdisciplinary experts to identify and refine innovative research questions. Each workshop focused on one of NINR's science focus areas. On the IQ website, members of the scientific community, professional organizations, and the general public were given the opportunity to submit innovative research questions directly to NINR, and to comment on questions submitted by others.

The questions that emanated from discussions at the workshops and from input provided through the website are now posted on NINR's website to serve as a valuable resource to the entire nurse scientist community, from experienced investigators to trainees, in considering future directions for their own programs of research. These questions will also provide the larger community with a better understanding of the potential and importance of nursing science.

NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research

Budget Authority by Object Class¹
(Dollars in Thousands)

	FY 2015 Enacted	FY 2016 President's Budget	FY 2016 +/- FY 2015
Total compensable workyears:			
Full-time employment	92	92	0
Full-time equivalent of overtime and holiday hours	0	0	0
Average ES salary	\$0	\$0	\$0
Average GM/GS grade	12.3	12.3	0.0
Average GM/GS salary	\$100	\$101	\$1
Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207)	\$139	\$141	\$1
Average salary of ungraded positions	\$58	\$59	\$1
OBJECT CLASSES	FY 2015 Enacted	FY 2016 President's Budget	FY 2016 +/- FY 2015
Personnel Compensation			
11.1 Full-Time Permanent	\$7,501	\$7,604	\$104
11.3 Other Than Full-Time Permanent	1,925	1,952	27
11.5 Other Personnel Compensation	120	122	2
11.7 Military Personnel	145	147	2
11.8 Special Personnel Services Payments	688	697	10
11.9 Subtotal Personnel Compensation	\$10,379	\$10,523	\$144
12.1 Civilian Personnel Benefits	\$2,947	\$2,987	\$41
12.2 Military Personnel Benefits	89	90	2
13.0 Benefits to Former Personnel	0	0	0
Subtotal Pay Costs	\$13,414	\$13,600	\$186
21.0 Travel & Transportation of Persons	\$141	\$143	\$2
22.0 Transportation of Things	16	16	0
23.1 Rental Payments to GSA	1	1	0
23.2 Rental Payments to Others	7	7	0
23.3 Communications, Utilities & Misc. Charges	106	108	2
24.0 Printing & Reproduction	1	1	0
25.1 Consulting Services	\$116	\$118	\$2
25.2 Other Services	1,217	1,236	19
25.3 Purchase of goods and services from government accounts	11,902	12,434	533
25.4 Operation & Maintenance of Facilities	\$338	\$338	\$0
25.5 R&D Contracts	0	0	0
25.6 Medical Care	0	0	0
25.7 Operation & Maintenance of Equipment	272	276	4
25.8 Subsistence & Support of Persons	0	0	0
25.0 Subtotal Other Contractual Services	\$13,844	\$14,402	\$558
26.0 Supplies & Materials	\$462	\$469	\$7
31.0 Equipment	386	392	6
32.0 Land and Structures	0	0	0
33.0 Investments & Loans	0	0	0
41.0 Grants, Subsidies & Contributions	112,475	115,376	2,901
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	\$127,438	\$130,915	\$3,477
Total Budget Authority by Object Class	\$140,852	\$144,515	\$3,663

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

NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research

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)	\$7,501	\$7,604	\$104
Other Than Full-Time Permanent (11.3)	1,925	1,952	27
Other Personnel Compensation (11.5)	120	122	2
Military Personnel (11.7)	145	147	2
Special Personnel Services Payments (11.8)	688	697	10
Subtotal Personnel Compensation (11.9)	\$10,379	\$10,523	\$144
Civilian Personnel Benefits (12.1)	\$2,947	\$2,987	\$41
Military Personnel Benefits (12.2)	89	90	2
Benefits to Former Personnel (13.0)	0	0	0
Subtotal Pay Costs	\$13,414	\$13,600	\$186
Travel & Transportation of Persons (21.0)	\$141	\$143	\$2
Transportation of Things (22.0)	16	16	0
Rental Payments to Others (23.2)	7	7	0
Communications, Utilities & Misc. Charges (23.3)	106	108	2
Printing & Reproduction (24.0)	1	1	0
Other Contractual Services:			
Consultant Services (25.1)	116	118	2
Other Services (25.2)	1,217	1,236	19
Purchases from government accounts (25.3)	7,862	7,766	-97
Operation & Maintenance of Facilities (25.4)	338	338	0
Operation & Maintenance of Equipment (25.7)	272	276	4
Subsistence & Support of Persons (25.8)	0	0	0
Subtotal Other Contractual Services	\$9,805	\$9,734	-\$71
Supplies & Materials (26.0)	\$462	\$469	\$7
Subtotal Non-Pay Costs	\$10,537	\$10,477	-\$59
Total Administrative Costs	\$23,951	\$24,077	\$126

**NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research**

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 Extramural Science Programs									
Direct:	30		30	31		31	31		31
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	30		30	31		31	31		31
Division of Intramural Research									
Direct:	20	2	22	20	2	22	20	2	22
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	20	2	22	20	2	22	20	2	22
Division of Management Services									
Direct:	18		18	18		18	18		18
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	18		18	18		18	18		18
Division of Science Policy and Public Liaison									
Direct:	15		15	15		15	15		15
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	15		15	15		15	15		15
Office of the Director									
Direct:	6	-	6	6	-	6	6	-	6
Reimbursable:	-	-	-	-	-	-	-	-	-
Total:	6	-	6	6	-	6	6	-	6
Total	89	2	91	90	2	92	90	2	92
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	12.2								
2013	12.2								
2014	12.3								
2015	12.3								
2016	12.3								

**NATIONAL INSTITUTES OF HEALTH
National Institute of Nursing Research**

Detail of Positions¹

GRADE	FY 2014 Actual	FY 2015 Enacted	FY 2016 President's Budget
Total, ES Positions	0	0	0
Total, ES Salary	0	0	0
GM/GS-15	9	9	9
GM/GS-14	23	24	24
GM/GS-13	17	17	17
GS-12	7	7	7
GS-11	9	9	9
GS-10	0	0	0
GS-9	4	4	4
GS-8	1	1	1
GS-7	5	5	5
GS-6	0	0	0
GS-5	0	0	0
GS-4	2	2	2
GS-3	0	0	0
GS-2	0	0	0
GS-1	0	0	0
Subtotal	77	78	78
Grades established by Act of July 1, 1944 (42 U.S.C. 207)	0	0	0
Assistant Surgeon General	0	0	0
Director Grade	0	0	0
Senior Grade	0	0	0
Full Grade	1	1	1
Senior Assistant Grade	1	1	1
Assistant Grade	0	0	0
Subtotal	2	2	2
Ungraded	24	24	24
Total permanent positions	78	79	79
Total positions, end of year	103	104	104
Total full-time equivalent (FTE) employment, end of year	91	92	92
Average ES salary	0	0	0
Average GM/GS grade	12.3	12.3	12.3
Average GM/GS salary	98,965	100,051	101,051

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