

DEPARTMENT OF HEALTH AND HUMAN SERVICES

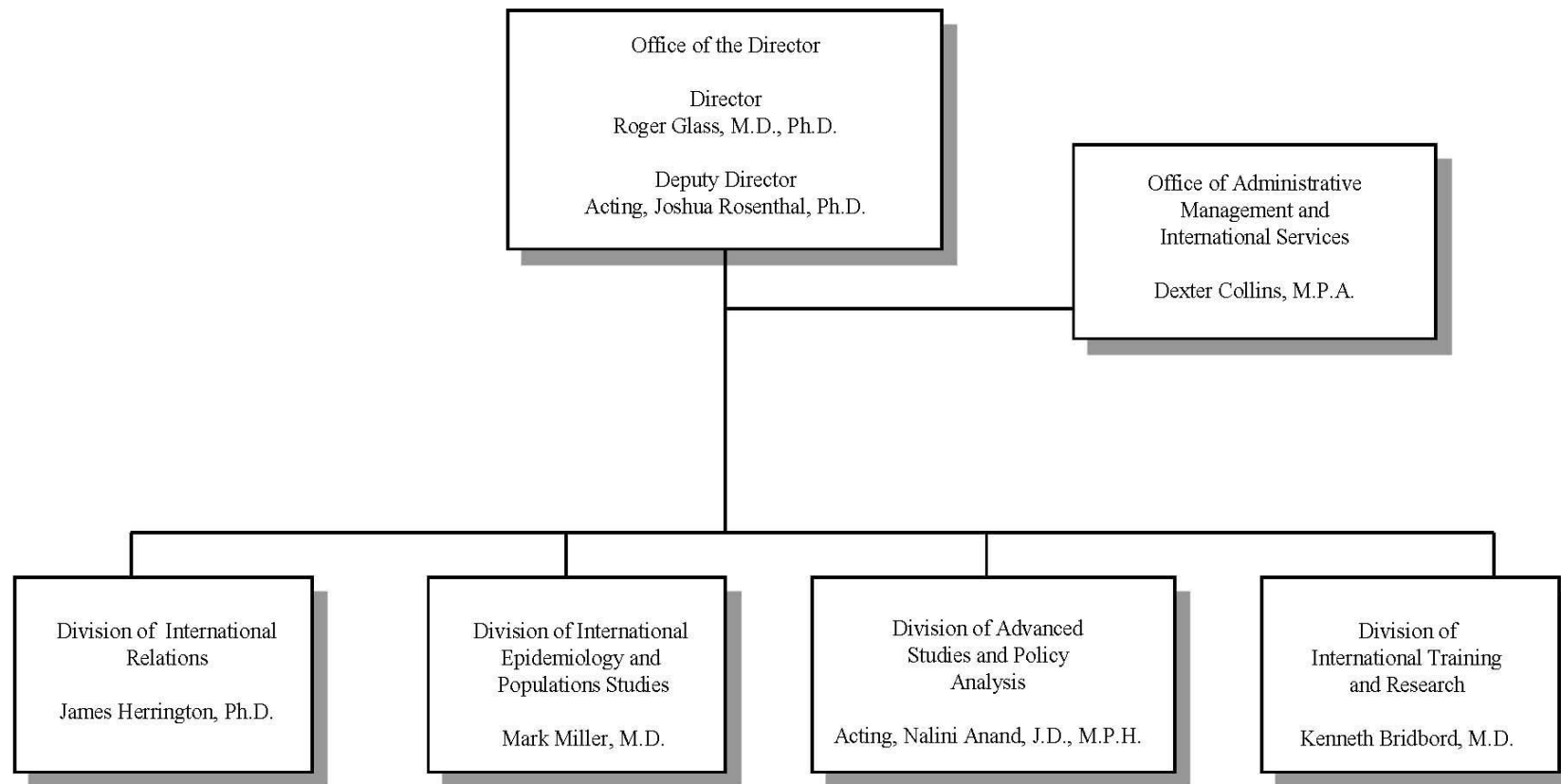
NATIONAL INSTITUTES OF HEALTH

John E. Fogarty International Center (FIC)

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NATIONAL INSTITUTES OF HEALTH

John E. Fogarty International Center



NATIONAL INSTITUTES OF HEALTH

John E. Fogarty International Center

For carrying out the activities of the John E. Fogarty International Center (described in subpart 2 of part E of title IV of the PHS Act), [\$69,754,000] \$69,758,000. (*Department of Health and Human Services Appropriations Act, 2012.*)

NATIONAL INSTITUTES OF HEALTH
John E. Fogarty International Center

Amounts Available for Obligation ¹
(Dollars in Thousands)

| Source of Funding | FY 2011 Actual | FY 2012 Enacted | FY 2013 PB |
|--|---------------------------|----------------------------|-----------------------|
| Appropriation | 70,051 | 69,754 | 69,758 |
| Type 1 Diabetes | 0 | 0 | 0 |
| Rescission | (615) | (132) | 0 |
| Supplemental | 0 | 0 | 0 |
| Subtotal, adjusted appropriation | 69,436 | 69,622 | 69,758 |
| Real transfer under Secretary's transfer authority | 0 | (20) | 0 |
| Comparative Transfers for NCATS reorganization | 0 | 0 | 0 |
| Comparative Transfers to NCATS for Therapeutics and Rare and Neglected Diseases (TRND) | (58) | 0 | 0 |
| Comparative Transfers to NLM for NCBI and Public Access | (60) | (63) | 0 |
| Subtotal, adjusted budget authority | 69,318 | 69,539 | 69,758 |
| Unobligated balance, start of year | 0 | 0 | 0 |
| Unobligated balance, end of year | 0 | 0 | 0 |
| Subtotal, adjusted budget authority | 69,318 | 69,539 | 69,758 |
| Unobligated balance lapsing | 0 | 0 | 0 |
| Total obligations | 69,318 | 69,539 | 69,758 |

¹ Excludes the following amounts for reimbursable activities carried out by this account:

FY 2011 - \$6,231 FY 2012 - \$6,356 FY 2013 - \$6,418

**NATIONAL INSITUTES OF HEALTH
John E. Fogarty International Center**

Budget Mechanism – Total ^{1/}
(Dollars in Thousands)

| MECHANISM | FY 2011 Actual | | FY 2012 Enacted | | FY 2013 PB | | Change vs. FY 2012 | |
|---|-------------------|----------|--------------------|----------|---------------|----------|--------------------|---------|
| | No. | Amount | No. | Amount | No. | Amount | No. | Amount |
| Research Grants | | | | | | | | |
| <u>Research Projects</u> | | | | | | | | |
| Noncompeting | 92 | \$9,270 | 66 | \$7,106 | 59 | \$7,012 | (7) | (\$94) |
| Administrative Supplements | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Competing | | | | | | | | |
| Renewal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| New | 24 | 2,390 | 49 | 3,910 | 44 | 3,510 | (5) | (400) |
| Supplements | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Subtotal, Competing | 24 | \$2,390 | 49 | \$3,910 | 44 | \$3,510 | (5) | (\$400) |
| Subtotal, RPGs | 116 | \$11,665 | 115 | \$11,016 | 103 | \$10,522 | (12) | (\$494) |
| SBIR/STTR | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Research Project Grants | 116 | \$11,665 | 115 | \$11,016 | 103 | \$10,522 | (12) | (\$494) |
| <u>Research Centers</u> | | | | | | | | |
| Specialized/Comprehensive | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Clinical Research | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Biotechnology | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Comparative Medicine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Research Centers in Minority Institutions | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Research Centers | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| <u>Other Research</u> | | | | | | | | |
| Research Careers | 22 | \$2,530 | 11 | \$2,439 | 11 | \$2,460 | 0 | \$21 |
| 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 | 148 | 37,444 | 168 | 37,903 | 167 | 38,001 | (1) | 98 |
| Other Research | 170 | \$39,974 | 179 | \$40,342 | 178 | \$40,461 | (1) | \$119 |
| Total Research Grants | 286 | \$51,639 | 294 | \$51,358 | 281 | \$50,983 | (13) | (\$375) |
| <u>Research Training</u> | <u>FTEPs</u> | | <u>FTEPs</u> | | <u>FTEPs</u> | | | |
| Individual Awards | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Institutional Awards | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Research Training | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Research & Development Contracts | 0 | \$3,015 | 0 | \$3,517 | 0 | \$4,115 | 0 | \$598 |
| <i>SBIR/STTR</i> | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| <u>Intramural Research</u> | <u>FTEs</u> | | <u>FTEs</u> | | <u>FTEs</u> | | <u>FTEs</u> | |
| Intramural Research | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Research Management and Support | 58 | 14,664 | 58 | 14,664 | 58 | 14,660 | 0 | (4) |
| Construction | | 0 | | 0 | | 0 | | 0 |
| Buildings and Facilities | | 0 | | 0 | | 0 | | 0 |
| Total, FIC | 58 | \$69,318 | 58 | \$69,539 | 58 | \$69,758 | 0 | \$219 |

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

Major Changes in the Fiscal Year 2013 President's Budget Request

Major changes by budget mechanism and/or budget activity detail are briefly described below. Note that there may be overlap between budget mechanism and activity detail and these highlights will not sum to the total change for the FY 2013 President's Budget request for FIC, which is \$0.219 million more than the FY 2012 Enacted level, for a total of \$69.758 million.

Research Project Grants (-\$0.494 million; total \$10.522 million): FIC will support a total of 103 Research Project Grant (RPG) awards in FY 2013. Noncompeting RPGs will decrease by 7 awards and decrease by \$94 thousand. Competing RPGs will decrease by 5 awards and decrease by \$400 thousand. NIH budget policy for RPGs in FY 2013 discontinues inflationary allowances and reduces the average cost of noncompeting and competing RPGs by one percent below the FY 2012 level. FIC will continue to support new investigators and maintain the number of competing RPGs.

Research Capacity Strengthening (+\$0.157 million; total \$38.900 million): FIC is continuing research training in the Chronic, Non-Communicable Chronic Diseases and Disorders Across the Lifespan Research Training Program. This program will focus on the fields related to cancer, cerebrovascular disease including stroke, lung disease including chronic obstructive pulmonary disease (COPD), environmental factors including indoor air pollution, and obesity and lifestyle factors related to these conditions. Support also continues for the Bioethics program, as well as for FIC's strong AIDS portfolio of research and research training.

Development of Human Resources for Global Health Research (+\$0.032 million; total \$4.230 million): FIC will increase funding for this activity, building on the progress made with the FIC International Clinical Research Scholars Program, as well as the Research Career awards.

International Collaborative Research (+\$0.034 million; total \$11.968 million): FIC will continue emphasis on the Brain Disorders in the Developing World: Research Across the Lifespan program, and increase funding for other areas of competing research programs.

NATIONAL INSTITUTES OF HEALTH
John E. Fogarty International Center
Summary of Changes
(Dollars in Thousands)

| FY 2012 Enacted | | | \$69,539 |
|---|------------------------------------|-----------------------------|---------------------------------------|
| FY 2013 President's Budget | | | \$69,758 |
| Net change | | | \$219 |
| CHANGES | 2013 President's Budget | | Change from FY 2012 |
| | FTEs | Budget Authority | FTEs Budget Authority |
| A. Built-in: | | | |
| 1. Intramural Research: | | | |
| a. Annualization of January 2012 pay increase & benefits | | \$0 | \$0 |
| b. January FY 2013 pay increase & benefits | | 0 | 0 |
| c. One more day of pay | | 0 | 0 |
| d. Annualization of PY net hires | | 0 | 0 |
| e. Payment for centrally furnished services | | 0 | 0 |
| f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs | | 0 | 0 |
| Subtotal | | | \$0 |
| 2. Research Management and Support: | | | |
| a. Annualization of January 2012 pay increase & benefits | | \$8,076 | \$1 |
| b. January FY 2013 pay increase & benefits | | 8,076 | 25 |
| c. One more day of pay | | 8,076 | 31 |
| d. Annualization of PY net hires | | 8,076 | 0 |
| e. Payment for centrally furnished services | | 869 | 0 |
| f. Increased cost of laboratory supplies, materials, other expenses, and non-recurring costs | | 5,715 | 0 |
| Subtotal | | | \$57 |
| Subtotal, Built-in | | | \$57 |

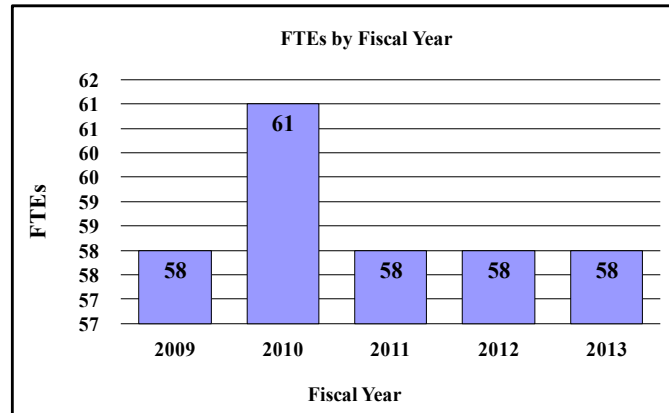
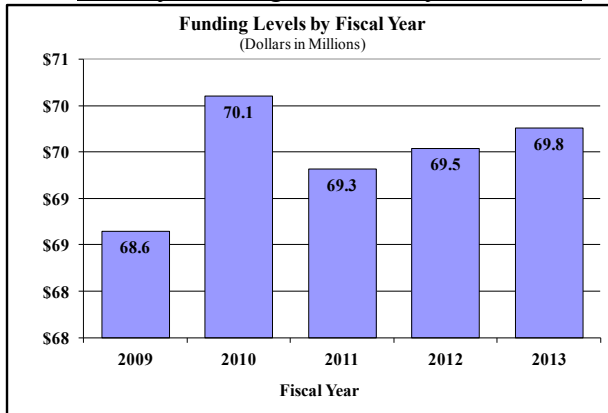
NATIONAL INSTITUTES OF HEALTH
John E. Fogarty International Center

Summary of Changes--continued

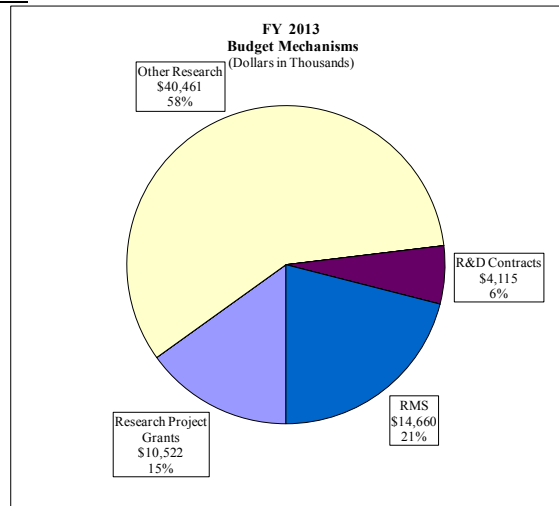
| CHANGES | 2013 President's Budget | | Change from FY 2012 | |
|---------------------------------------|----------------------------|----------|---------------------|---------|
| | No. | Amount | No. | Amount |
| B. Program: | | | | |
| 1. Research Project Grants: | | | | |
| a. Noncompeting | 59 | \$7,012 | (7) | (\$94) |
| b. Competing | 44 | 3,510 | (5) | (400) |
| c. SBIR/STTR | 0 | 0 | 0 | 0 |
| Total | 103 | \$10,522 | (12) | (\$494) |
| 2. Research Centers | 0 | \$0 | 0 | \$0 |
| 3. Other Research | 178 | 40,461 | (1) | 119 |
| 4. Research Training | 0 | 0 | 0 | 0 |
| 5. Research and development contracts | 0 | 4,115 | 0 | 598 |
| Subtotal, Extramural | | \$55,098 | | \$223 |
| 6. Intramural Research | <u>FTEs</u> 0 | \$0 | <u>FTEs</u> 0 | \$0 |
| 7. Research Management and Support | 58 | 14,660 | 0 | (61) |
| 8. Construction | | 0 | | 0 |
| 9. Buildings and Facilities | | 0 | | 0 |
| Subtotal, program | 58 | \$69,758 | 0 | \$162 |
| Total changes | | | | \$219 |

Fiscal Year 2013 Budget Graphs

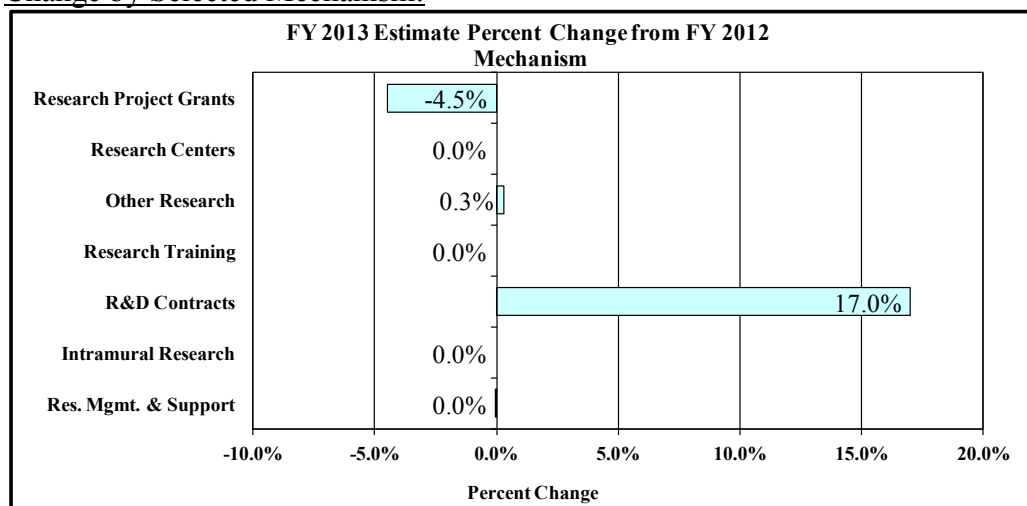
History of Budget Authority and FTEs:



Distribution by Mechanism:



Change by Selected Mechanism:



NATIONAL INSTITUTES OF HEALTH
John E. Fogarty International Center
Budget Authority by Activity
(Dollars in Thousands)

| | FY 2011 Actual | | FY 2012 Enacted | | FY 2013 PB | | Change vs. FY 2012 Enacted | |
|---|-------------------|---------------|--------------------|---------------|---------------|---------------|-------------------------------|---------------|
| | <u>FTEs</u> | <u>Amount</u> | <u>FTEs</u> | <u>Amount</u> | <u>FTEs</u> | <u>Amount</u> | <u>FTEs</u> | <u>Amount</u> |
| <u>Extramural Research</u> | | | | | | | | |
| <u>Detail:</u> | | | | | | | | |
| Research Capacity Strengthening | | \$38,858 | | \$38,743 | | \$38,900 | | 157 |
| Development of Human Resources for Global Health Research | | 3,398 | | 4,198 | | 4,230 | | 32 |
| International Collaborative Research | | 12,398 | | 11,934 | | 11,968 | | 34 |
| Subtotal, Extramural | | \$54,654 | | \$54,875 | | \$55,098 | | \$223 |
| Intramural Research | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Research Management & Support | 58 | \$14,664 | 58 | \$14,664 | 58 | \$14,660 | 0 | (\$4) |
| TOTAL | 58 | \$69,318 | 58 | \$69,539 | 58 | \$69,758 | 0 | \$219 |

1 Includes FTEs which are reimbursed from the NIH Common Fund

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

**NATIONAL INSTITUTES OF HEALTH
John E. Fogarty International Center**

Authorizing Legislation

| | PHS Act/ Other Citation | U.S. Code Citation | 2012 Amount Authorized | FY 2012 Enacted | 2013 Amount Authorized | FY 2013 PB |
|--------------------------------------|------------------------------------|-------------------------------|-----------------------------------|----------------------------|-----------------------------------|-----------------------|
| Research and Investigation | Section 301 | 42§241 | Indefinite | \$69,539,000 | Indefinite | \$69,758,000 |
| International Cooperation | Section 307 | 42§242 | Indefinite | | Indefinite | |
| John E. Fogarty International Center | Section 401(a) | 42§281 | Indefinite | | Indefinite | |
| Total, Budget Authority | | | | \$69,539,000 | | \$69,758,000 |

NATIONAL INSTITUTES OF HEALTH
John E. Fogarty International Center

Appropriations History

| Fiscal Year | Budget Estimate to Congress | House Allowance | Senate Allowance | Appropriation |
|--------------|-----------------------------|-----------------|------------------|---------------|
| 2004 | \$64,266,000 | \$64,266,000 | \$65,900,000 | \$65,800,000 |
| Rescission | | | | (\$418,000) |
| 2005 | \$67,182,000 | \$67,182,000 | \$67,600,000 | \$67,182,000 |
| Rescission | | | | (\$550,000) |
| 2006 | \$67,048,000 | \$67,048,000 | \$68,745,000 | \$67,048,000 |
| Rescission | | | | (\$670,000) |
| 2007 | \$66,681,000 | \$66,681,000 | \$66,832,000 | \$66,378,000 |
| Rescission | | | | \$0 |
| 2008 | \$66,594,000 | \$67,599,000 | \$68,000,000 | \$67,741,000 |
| Rescission | | | | (\$1,183,000) |
| Supplemental | | | | \$354,000 |
| 2009 | \$66,623,000 | \$68,905,000 | \$68,476,000 | \$68,691,000 |
| Rescission | | | | \$0 |
| 2010 | \$69,227,000 | \$70,780,000 | \$69,409,000 | \$70,051,000 |
| Rescission | | | | \$0 |
| 2011 | \$73,027,000 | | \$72,914,000 | \$70,051,000 |
| Rescission | | | | (\$615,089) |
| 2012 | \$71,328,000 | \$71,328,000 | \$68,653,000 | \$69,754,000 |
| Rescission | | | | (\$131,835) |
| 2013 | \$69,758,000 | | | |

Justification of Budget Request

John E. Fogarty International Center for Advanced Study in the Health Sciences

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

Budget Authority (BA):

| | FY 2011 Actual | FY 2012 Enacted | FY 2013 President's Budget | FY 2013 +/- FY 2012 |
|-----|-------------------|--------------------|----------------------------------|------------------------|
| BA | \$69,318,000 | \$69,539,000 | \$69,758,000 | \$219,000 |
| FTE | 58 | 58 | 58 | 0 |

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

Director's Overview

These are exciting and rapidly evolving times for global health. New prevention strategies for HIV transmission, the extension of health interventions to remote settings through mobile technologies, and recent momentum to reduce the health effects of indoor air pollution globally are just a few examples of emerging opportunities to improve health around the world. In addition, gains in life expectancy in many low- and middle-income countries (LMICs) require increased research on chronic, non-communicable diseases (NCDs), and a capable research workforce with the skills to tackle these multi-faceted illnesses. The Fogarty International Center supports international scientific collaboration and the development of critical research expertise in the U.S. and abroad. Training U.S. and local LMIC scientists who serve on the frontlines combating disease to apply their unique knowledge and sensitivities of the local setting is imperative in a world where diseases do not respect national borders. This training is especially important today as Americans and many in the developing world now confront the same NCD-related health challenges. By building international networks of trained researchers poised to tackle the stubborn health research challenges that affect us all, Fogarty is extending the reach and scientific leadership of the National Institutes of Health (NIH) and the United States.

Strengthening Sustainable Research Capacity. Fogarty has supported long-term training for thousands of scientists worldwide. In collaboration with U.S. partners, Fogarty-supported researchers conduct cutting-edge science and train the next generation of leaders.

- The President's Emergency Plan for AIDS Relief (PEPFAR) relies on trained scientists to provide an evidence base for new and effective strategies. Fogarty-supported researchers have provided evidence that a new, simpler, and shorter treatment regimen of antibiotics

can prevent those infected with the TB bacterium – particularly those who also have HIV – from developing full blown TB.¹

- Injuries cause 10 percent of the world’s deaths and 16 percent of the world’s disabilities² and are the leading cause of death from non-natural causes for Americans abroad.³ Fogarty supports a partnership between the University of Maryland and Ain Shams University-Cairo to train injury researchers and to develop injury research programs in the Arab Middle East, where recent violence and the high proportion of youth susceptible to injuries make the program particularly timely.
- The success and credibility of major U.S. investments in clinical trials and other health research studies depends critically on the competence of local ethics review boards and appropriate national regulations. Fogarty’s International Research Ethics Education and Curriculum Development Award Program strengthens LMIC research ethics capacity. For example, Nigerian grantee Dr. Clement Adebamowo has provided ethics training to over 1,000 West African researchers, drafted the Nigerian National Code for Research Ethics, and established a web-based research protocol tracking system for the country.

New Investigators and New Ideas. The International Clinical Research Scholars and Fellows program and International Research Scientist Development Awards capitalize on the groundswell of interest in global health research at U.S. universities and invest in future American leaders in global health research (at the graduate and post-doctoral levels, respectively). In Zambia, former Scholar Dr. Krista Pfaendler implemented a cervical cancer screening program using digital cameras for cervical photography and acetic acid (vinegar) for visual inspection. Using household vinegar to detect cervical cancer has been highlighted as a cost-effective approach to address cervical cancer in LMICs.

Advancing Translational Science. Innovative strategies are needed to translate biomedical discoveries into new therapies, diagnostics, and prevention tools. Supported by Fogarty’s International Cooperative Biodiversity Groups Program, U.S. and international scientists conduct discovery research on potential health applications of molecules – from plants, animals, and microorganisms – and initiate partnerships with companies interested in developing these molecules for potential new drugs or diagnostics. This public-private partnership model has led to four active patents in the areas of cancer, parasitic diseases, and malaria.

Investing in Basic Research. Malnutrition is a critical cause of cognitive and physical defects, low-birth weight, and death. With support from the Gates Foundation, FIC’s Global Network for the Study of Malnutrition and Enteric Disease (MAL-ED) program evaluates the etiology, risk factors, and interactions of enteric infections and malnutrition and the consequences for child health. Genome-wide studies are also being conducted to identify candidate human genes associated with under-nutrition and growth impairment.

1 Martinson, Neil A , Barnes, Grace L , Moulton, Lawrence H , Msandiwa, Reginah Hausler, Harry Ram, Malathi McIntyre, James A Gray, Glenda E Chaisson, Richard E New Regimens to Prevent Tuberculosis in Adults with HIV Infection (2011)New England Journal of Medicine, 365:1, 11-20, at <http://www.nejm.org/doi/full/10.1056/NEJMoa1005136>

2 World Health Organization, at http://whqlibdoc.who.int/publications/2010/9789241599375_eng.pdf

3 Centers for Disease Control and Prevention, at <http://www.cdc.gov/travel/yellowbook/2012/chapter-2-the-pre-travel-consultation/injuries-and-safety.htm>

Challenges and the Path Forward. Today's global health challenges include longer life spans, the dual burden of infectious and non-communicable diseases, the impact of the environment on health, and resource constraints that require new approaches to strengthening research capacity in LMICs. In FY 2013, Fogarty will implement the following new program designs:

- Fogarty's longstanding HIV/AIDS research training program has thus far emphasized individual research training. To increase the impact of its investment and respond to PEPFAR's shift from emergency efforts to sustainability, Fogarty will direct its HIV/AIDS investments toward research institutions as a whole, developing critical masses of researchers in focused scientific areas and strengthening research infrastructure.
- Environmental risk factors contribute to 23 percent of the world's death and disability.⁴ Additional research is needed to understand how different exposure levels to environmental factors affect health among a diverse global population. Fogarty will support consortia of U.S. and LMIC institutions to conduct research, research training, and curriculum development activities that will lead to a better understanding of the impact of factors such as indoor air pollution, radiation, water pollution, and mining-related exposures on health, as well as the development of effective interventions to reduce adverse health effects.

Fogarty's continued support for global health research and training will extend the frontiers of science, accelerate discovery, improve the health of Americans and people across the globe, and allow the U.S. to continue to compete and lead in science while addressing the world's most pressing challenges.

Program Descriptions and Accomplishments

Research Capacity Strengthening: The identification of priority health challenges and the development of effective health interventions to address those challenges require a critical mass of U.S. and low- and middle-income countries (LMIC) institutions that can conduct robust research and train the next generation of scientists to solve complex problems. These institutions can stimulate innovative and multidisciplinary research on locally relevant problems, generate effective and implementable solutions, and build a nimble and networked research workforce. Fogarty investments are strengthening U.S. and LMIC research institutions by supporting the development of new research and research training models that will foster collaborative and sustainable research environments.

Budget Policy: The FY 2013 President's Budget request is \$38.900 million, an increase of \$0.157 million or 0.4 percent, over the FY 2012 Enacted level. FIC's new FY 2013 – FY 2017 Strategic Plan provides the pathway toward developing sustainable global health research and training programs where they are needed most. The plan's first goal is to mobilize the scientific community to address the growing epidemic of chronic, non-communicable diseases related to increased longevity and changing lifestyles in the developing world. To accomplish this, FIC will invest in this area, while continuing to invest in the critical infectious diseases agenda. FIC's Chronic, Non-Communicable Chronic Diseases and Disorders Across the Lifespan Research Training Program plans to fund \$1.4 million a year to support non-communicable

⁴ World Health Organization at http://www.who.int/quantifying_chimpacts/publications/preventingdisease/en/index.html.

diseases research training, with seven awards expected annually. In addition, FIC is working with other NIH components and private partners to develop further chronic disease initiatives.

Program Portrait: Framework Programs for Framework Signature

FY 2012 Level: \$1.4 million

FY 2013 Level: \$2.8 million

Change: +\$1.4 million

Over the last decade, American university campuses have seen a soaring interest in global health among students and faculty from diverse fields, placing U.S. universities in an excellent position to help generate solutions to complex global health challenges. In 2010, Fogarty piloted a one-year Framework Programs for Global Health Signature Innovations Initiative (FRAME Signature), funded by NIH through the American Recovery & Reinvestment Act (ARRA). FRAME Signature supported the creation of infrastructure, resources, and opportunities for postdoctoral investigators in U.S. universities to carry out innovative, multidisciplinary team research in global health. Building on this initiative and beginning in 2012, Fogarty's Framework Programs for Global Health Innovation (FRAME Innovation) will provide five-year awards to U.S. and low- and middle-income countries (LMICs) institutions to develop interdisciplinary, postdoctoral research training programs in global health, directed at innovation in health products, processes, and policies. In these training programs, U.S. and LMIC teams will identify critical health needs and carry out the scientific research needed to develop and test concepts and solutions. At the outset, these projects will consider effectiveness, affordability, accessibility, ease of use or delivery, and/or scalability. And, this practical focus will increase the potential for translation of research findings into concrete and realizable health benefits.

Grants that were awarded under FRAME Signature are illustrative of the type of project-based research training that will be supported by FRAME Innovation. For example, FRAME Signature supported the development of point-of-care telemedicine units built with \$2 microscopes that can be attached to a cell phone enabling diagnosis of such infectious diseases as malaria and HIV, and in remote settings with no access to clinics. Because of their ease of use, effectiveness, cost-effectiveness, and the ability for quick diagnosis, these microscopes have the potential to revolutionize care in LMIC settings. FRAME Signature also supported research on linking women's empowerment to better health for women and their families. At a time when the value and impact of women's empowerment is a significant area of focus for U.S. Government (USG) global health efforts, this research can inform health investments and policies in the USG and LMICs. FRAME Innovation will support additional projects that provide concrete benefits for populations living in resource-poor settings in the U.S. and around the world.

International Collaborative Research: Fogarty-supported research collaborations between U.S. and LMIC scientists make U.S. academic institutions more globally competitive, extend their reach, and enable U.S. scientists to lead and participate in international research teams that address key global health priorities. These partnerships also lead to more robust solutions to global health problems, as the respective strengths and expertise of local and U.S. scientists are brought to bear on complex challenges. Whether the focus is international collaborative research on tobacco control or the prediction and containment of emerging infectious diseases, discoveries and evidence generated by these projects often have implications for U.S. populations.

Budget Policy: The FY 2013 President's Budget request is \$11.968 million, an increase of \$0.034 million or 0.3 percent, over the FY 2012 Enacted level. This area encourages implementation science to address the "know-do" gap, and would expand research training opportunities for U.S. and foreign scientists, foster a sustainable research environment in LMICs,

and build strategic partnerships to further global health. FIC plans to expand its International Clinical, Operational and Health Services Research Training Award program for AIDS and TB and has reinforced the initiative's support for implementation research.

Program Portrait: Ecology and Evolution of Infectious Diseases Initiative (EEID)

FY 2012 Level: \$2.238 million

FY 2013 Level: \$2.250 million

Change: +\$0.012 million

In an increasingly interconnected world, dangers posed by the emergence of new infectious agents extend across the globe. New diseases that emerge in one location can become the next deadly pandemic. The Ecology and Evolution of Infectious Diseases Initiative (EEID) — conducted jointly with the National Science Foundation (NSF) and led at the NIH by Fogarty — supports research to understand the effects of environmental change on disease emergence and transmission. For example, deforestation, intensified farming, insecticide and drug resistance, climate change, urbanization, and migration all affect the risk that viral, parasitic, and bacterial diseases will emerge and be transmissible in humans and animals. Understanding how this happens, and if a disease is likely to pass to, and between, humans can enhance our ability to predict and control potential threats. EEID supports 10 multidisciplinary, international teams that are conducting research on specific agents to understand how they are transmitted, and to develop models and tools to predict, prevent, and control potential threats.

For example, a 2003 multi-state monkeypox outbreak in the U.S. that sickened 93 people was traced to contact with prairie dogs exposed to an infected animal from Ghana. Because monkeypox is transmissible to humans, and could become transmissible between humans, EEID-supported researchers in the Democratic Republic of Congo are working to understand the origin, distribution, natural transmission, and progression of monkeypox viruses in humans and animals. Data from this project will advance our understanding of monkeypox transmission, and help us to assess the possibility that monkeypox could become endemic in U.S. rodents.

Since 2003, 569 human cases (and 334 deaths) from Highly Pathogenic Avian Influenza (HPAI, subtype H5N1) have been reported by the World Health Organization in Asia, Africa, the Pacific, Europe, and the Near East (World Health Organization at http://www.who.int/influenza/human_animal_interface/EN_GIP_20111102CumulativeNumberH5N1casesN.pdf). While “bird flu” is not currently transmissible between humans, human to human transmission could cause a flu pandemic of uncertain magnitude. An EEID project in Asia is identifying hot spots and “hot times” for HPAI transmission among animals and to humans, and developing an early warning system. This work will help public health officials, scientists, and governments control zoonotic (animal) HPAI outbreaks and provide critical information on how “spillover” from animals to humans occurs, whether or not the virus becomes transmissible between humans.

Sustainable Development of Human Resources for Global Health Research: Breakthrough scientific advances in global health are built upon a foundation of well-trained researchers from both high-income countries and LMICs who collaborate to solve major global health problems. Therefore, investing in the best and brightest minds, and catalyzing research and training partnerships between talented U.S. and LMIC scientists is a high priority for Fogarty. Well-trained LMIC researchers bring an understanding of the unique biological, epidemiological, social, and cultural contexts of their communities, and contribute this knowledge to research on locally relevant challenges that often have broader, global implications. Fogarty continues to support research training activities focused on specific, high priority global health challenges and in the context of partnerships between U.S. and LMIC research institutions.

Budget Policy: The FY 2013 President's Budget request is \$4.230 million, an increase of \$0.032 thousand or 0.8 percent over the FY 2012 Enacted level. FIC's impact has historically been most significant in developing the pipeline of U.S. and foreign research talent. FIC intends to expand

the number of overseas research experiences available for young U.S. scientists in order to encourage them to adopt careers in global health. FIC will also continue its research training partnerships between U.S. and foreign institutions and strive to enhance research opportunities for foreign scientists when they return home.

Program Portrait: Chronic, Non-Communicable Diseases and Disorders Across the Lifespan: Fogarty International Research Training Award (NCD-LIFESPAN)

FY 2012 Level: \$5.213 million

FY 2013 Level: \$6.200 million

Change: +\$0.987 million

With recent increases in life expectancy and reductions in child mortality in many places around the world, countries face a higher burden of chronic diseases that generally occur in adulthood. Research and interventions must address the detrimental impact of early childhood risk factors, such as under-nutrition, and infectious disease on the development and progression of chronic conditions. In response, Fogarty's NCD-Lifespan research training program supports partnerships between U.S. and low- and middle-income countries (LMIC) institutions that are building NCD research capacity in LMICs to address the epidemic of chronic disease, with a focus on early childhood exposures and the genetic, environmental, and lifestyle risk factors that can contribute to later onset of disease. NCD-Lifespan projects are collectively creating a cadre of investigators and institutions that are able to conduct NCD research relevant to local and global epidemics in areas such as cancer, stroke, mental illness, and metabolic disorders. This program benefits from the experience and participation of eight NIH Institute and Center partners.

Cardiovascular disease (CVD) is the leading cause of death in the world, with over 80 percent of CVD-related mortality occurring in LMICs (World Health Organization at http://www.who.int/cardiovascular_diseases/en/). In Ghana, NCD-Lifespan supports the development of a Cardiovascular Research Training Institute as a partnership between New York University and the University of Ghana, to build capacity for cardiovascular risk reduction, and research training aimed at preventing and treating hypertension, diabetes, stroke, and chronic kidney disease. Trainees will develop the skills to conduct innovative, contextualized, and scientifically rigorous research on cardiovascular health. The project will add a cadre of 40 investigators contributing CVD research and expertise to the global effort to reduce CVD morbidity and mortality.

Cerebrovascular disease places a high burden of stroke-related disability on populations worldwide, which has to date been addressed by limited evidence-based rehabilitation interventions. In Brazil, NCD-Lifespan is supporting leading stroke researchers from the U.S. and Brazil to identify creative and effective mechanisms to enhance research capability at Sao Paulo University's Neurostimulation Laboratory. The multi-country research team will design and test a training program to provide skills in neuroscience, stroke rehabilitation, and biomedical engineering. This will enable participants to develop needed, novel, and effective strategies and tools for stroke rehabilitation, with the goal of adding new strategies to the global fight against stroke-related disability.

Research Management and Support (RMS): FIC's RMS provides administrative, budgetary, logistical, and scientific support to review, award, and monitor research grants, training awards, and contracts. It encompasses strategic planning, coordination, and evaluation of the Center's programs; regulatory compliance; international coordination; international science policy; and liaisons with other Federal agencies, Congress, and the public. Specific functions include an in-house epidemiology section performing mathematical modeling of infectious diseases; international program officers developing partnerships between U.S. scientists and institutions

and their counterparts abroad to advance scientific research and training; identification of collaborative opportunities with foreign science funding agencies; support for all NIH international travel by issuing and tracking official government passports and international visas; review and approval of Notice of Foreign Travel requests; and the creation and coordination of official travel cables to U.S. Embassies.

Budget Policy: The FY 2013 President's Budget request is \$14.660 million, a decrease of \$0.004 million or 0.3 percent, under the FY 2012 Enacted level.

**NATIONAL INSTITUTES OF HEALTH
John E. Fogarty International Center**

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

| | FY 2012 Enacted | FY 2013 PB | Increase or Decrease |
|---|----------------------------|-----------------------|---------------------------------|
| Total compensable workyears: | | | |
| Full-time employment | 58 | 58 | 0 |
| Full-time equivalent of overtime and holiday hours | 0 | 0 | 0 |
| Average ES salary (<i>in dollars</i>) | \$179,700 | \$179,700 | \$0 |
| Average GM/GS grade | 12.2 | 12.2 | 0.0 |
| Average GM/GS salary (<i>in dollars</i>) | \$101,990 | \$101,990 | \$0 |
| Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207) (<i>in dollars</i>) | \$97,180 | \$97,180 | \$0 |
| Average salary of ungraded positions (<i>in dollars</i>) | 166,417 | 166,417 | 0 |
| OBJECT CLASSES | FY 2012 Enacted | FY 2013 PB | Increase or Decrease |
| Personnel Compensation: | | | |
| 11.1 Full-time permanent | \$4,571 | \$4,594 | \$23 |
| 11.3 Other than full-time permanent | 1,295 | 1,301 | 6 |
| 11.5 Other personnel compensation | 171 | 172 | 1 |
| 11.7 Military personnel | 153 | 156 | 3 |
| 11.8 Special personnel services payments | 0 | 0 | 0 |
| Total, Personnel Compensation | \$6,190 | \$6,223 | \$33 |
| 12.0 Personnel benefits | \$1,656 | \$1,664 | \$8 |
| 12.2 Military personnel benefits | 173 | 177 | 4 |
| 13.0 Benefits for former personnel | 0 | 0 | 0 |
| Subtotal, Pay Costs | \$8,019 | \$8,064 | \$45 |
| 21.0 Travel and transportation of persons | \$370 | \$360 | (\$10) |
| 22.0 Transportation of things | 40 | 38 | (2) |
| 23.1 Rental payments to GSA | 0 | 0 | 0 |
| 23.2 Rental payments to others | 3 | 3 | 0 |
| 23.3 Communications, utilities and miscellaneous charges | 170 | 168 | (2) |
| 24.0 Printing and reproduction | 10 | 10 | 0 |
| 25.1 Consulting services | 8 | 8 | 0 |
| 25.2 Other services | 1,925 | 1,938 | 13 |
| 25.3 Purchase of goods and services from government accounts | 6,939 | 7,582 | 643 |
| 25.4 Operation and maintenance of facilities | 1 | 1 | 0 |
| 25.5 Research and development contracts | 373 | 288 | (85) |
| 25.6 Medical care | 0 | 0 | 0 |
| 25.7 Operation and maintenance of equipment | 63 | 60 | (3) |
| 25.8 Subsistence and support of persons | 0 | 0 | 0 |
| 25.0 Subtotal, Other Contractual Services | \$9,309 | \$9,877 | \$568 |
| 26.0 Supplies and materials | \$72 | \$70 | (\$2) |
| 31.0 Equipment | 188 | 185 | (3) |
| 32.0 Land and structures | 0 | 0 | 0 |
| 33.0 Investments and loans | 0 | 0 | 0 |
| 41.0 Grants, subsidies and contributions | 51,358 | 50,983 | (375) |
| 42.0 Insurance claims and indemnities | 0 | 0 | 0 |
| 43.0 Interest and dividends | 0 | 0 | 0 |
| 44.0 Refunds | 0 | 0 | 0 |
| Subtotal, Non-Pay Costs | \$61,520 | \$61,694 | \$174 |
| Total Budget Authority by Object | \$69,539 | \$69,758 | \$219 |

Includes FTEs which are reimbursed from the NIH Common Fund.

NATIONAL INSTITUTES OF HEALTH
John E. Fogarty International Center

Salaries and Expenses
(Dollars in Thousands)

| OBJECT CLASSES | FY 2012 Enacted | FY 2013 PB | Increase or Decrease |
|---|----------------------------|-----------------------|---------------------------------|
| Personnel Compensation: | | | |
| Full-time permanent (11.1) | \$4,571 | \$4,594 | \$23 |
| Other than full-time permanent (11.3) | 1,295 | 1,301 | 6 |
| Other personnel compensation (11.5) | 171 | 172 | 1 |
| Military personnel (11.7) | 153 | 156 | 3 |
| Special personnel services payments (11.8) | 0 | 0 | 0 |
| Total Personnel Compensation (11.9) | \$6,190 | \$6,223 | \$33 |
| Civilian personnel benefits (12.1) | \$1,656 | \$1,664 | \$8 |
| Military personnel benefits (12.2) | 173 | 177 | 4 |
| Benefits to former personnel (13.0) | 0 | 0 | 0 |
| Subtotal, Pay Costs | \$8,019 | \$8,064 | \$45 |
| Travel (21.0) | \$370 | \$360 | (\$10) |
| Transportation of things (22.0) | 40 | 38 | (2) |
| Rental payments to others (23.2) | 3 | 3 | 0 |
| Communications, utilities and miscellaneous charges (23.3) | 170 | 168 | (2) |
| Printing and reproduction (24.0) | 10 | 10 | 0 |
| Other Contractual Services: | | | |
| Advisory and assistance services (25.1) | 8 | 8 | 0 |
| Other services (25.2) | 1,925 | 1,938 | 13 |
| Purchases from government accounts (25.3) | 4,291 | 4,291 | 0 |
| Operation and maintenance of facilities (25.4) | 1 | 1 | 0 |
| Operation and maintenance of equipment (25.7) | 63 | 60 | (3) |
| Subsistence and support of persons (25.8) | 0 | 0 | 0 |
| Subtotal Other Contractual Services | \$6,288 | \$6,298 | \$10 |
| Supplies and materials (26.0) | \$72 | \$70 | (\$2) |
| Subtotal, Non-Pay Costs | \$6,953 | \$6,947 | (\$6) |
| Total, Administrative Costs | \$14,972 | \$15,011 | \$39 |

NATIONAL INSTITUTES OF HEALTH

John E. Fogarty International Center

Details of Full-Time Equivalent Employment (FTEs)

| OFFICE/DIVISION | FY 2011 Actual | | | FY 2012 Enacted | | | FY 2013 PB | | |
|--|-------------------------|----------|-----------|--------------------|----------|-----------|---------------|----------|-----------|
| | Civilian | Military | Total | Civilian | Military | Total | Civilian | Military | Total |
| Office of the Director | | | | | | | | | |
| Direct: | 14 | 0 | 14 | 14 | 0 | 14 | 14 | 0 | 14 |
| Reimbursable: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total: | 14 | 0 | 14 | 14 | 0 | 14 | 14 | 0 | 14 |
| Office of Administrative Management and International Services | | | | | | | | | |
| Direct: | 12 | 0 | 12 | 12 | 0 | 12 | 12 | 0 | 12 |
| Reimbursable: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total: | 12 | 0 | 12 | 12 | 0 | 12 | 12 | 0 | 12 |
| Division of International Training and Research | | | | | | | | | |
| Direct: | 12 | 0 | 12 | 12 | 0 | 12 | 12 | 0 | 12 |
| Reimbursable: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total: | 12 | 0 | 12 | 12 | 0 | 12 | 12 | 0 | 12 |
| Division of International Relations | | | | | | | | | |
| Direct: | 11 | 2 | 13 | 11 | 2 | 13 | 11 | 2 | 13 |
| Reimbursable: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total: | 11 | 2 | 13 | 11 | 2 | 13 | 11 | 2 | 13 |
| Division of International Science Policy, Planning and Evaluation | | | | | | | | | |
| Direct: | 5 | 0 | 5 | 5 | 0 | 5 | 5 | 0 | 5 |
| Reimbursable: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total: | 5 | 0 | 5 | 5 | 0 | 5 | 5 | 0 | 5 |
| Division of International Epidemiology and Population Studies | | | | | | | | | |
| Direct: | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |
| Reimbursable: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total: | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 |
| Total | 55 | 3 | 58 | 55 | 3 | 58 | 55 | 3 | 58 |
| Includes FTEs which are reimbursed from the NIH Common Fund. | | | | | | | | | |
| FTEs supported by funds from Cooperative Research and Development Agreements | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FISCAL YEAR | Average GS Grade | | | | | | | | |
| 2009 | 11.8 | | | | | | | | |
| 2010 | 11.8 | | | | | | | | |
| 2011 | 12.2 | | | | | | | | |
| 2012 | 12.2 | | | | | | | | |
| 2013 | 12.2 | | | | | | | | |

NATIONAL INSTITUTES OF HEALTH
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Detail of Positions

| GRADE | FY 2011 Actual | FY 2012 Enacted | FY 2013 PB |
|---|---------------------------|----------------------------|-----------------------|
| Total, ES Positions | 1 | 1 | 1 |
| Total, ES Salary | 179,700 | 179,700 | 179,700 |
| GM/GS-15 | 7 | 7 | 7 |
| GM/GS-14 | 16 | 16 | 16 |
| GM/GS-13 | 5 | 5 | 5 |
| GS-12 | 5 | 5 | 5 |
| GS-11 | 7 | 7 | 7 |
| GS-10 | 0 | 0 | 0 |
| GS-9 | 2 | 2 | 2 |
| GS-8 | 1 | 1 | 1 |
| GS-7 | 3 | 3 | 3 |
| GS-6 | 0 | 0 | 0 |
| GS-5 | 1 | 1 | 1 |
| GS-4 | 0 | 0 | 0 |
| GS-3 | 0 | 0 | 0 |
| GS-2 | 1 | 1 | 1 |
| GS-1 | 0 | 0 | 0 |
| Subtotal | 48 | 48 | 48 |
| Grades established by Act of July 1, 1944 (42 U.S.C. 207): | | | |
| Assistant Surgeon General | 0 | 0 | 0 |
| Director Grade | 2 | 2 | 2 |
| Senior Grade | 1 | 1 | 1 |
| Full Grade | 0 | 0 | 0 |
| Senior Assistant Grade | 0 | 0 | 0 |
| Assistant Grade | 0 | 0 | 0 |
| Subtotal | 3 | 3 | 3 |
| Ungraded | 12 | 12 | 12 |
| Total permanent positions | 52 | 52 | 52 |
| Total positions, end of year | 64 | 64 | 64 |
| Total full-time equivalent (FTE) employment, end of year | 58 | 58 | 58 |
| Average ES salary | 179,700 | 179,700 | 179,700 |
| Average GM/GS grade | 12.2 | 12.2 | 12.2 |
| Average GM/GS salary | 101,990 | 101,990 | 101,990 |

Includes FTEs which are reimbursed from the NIH Common Fund.