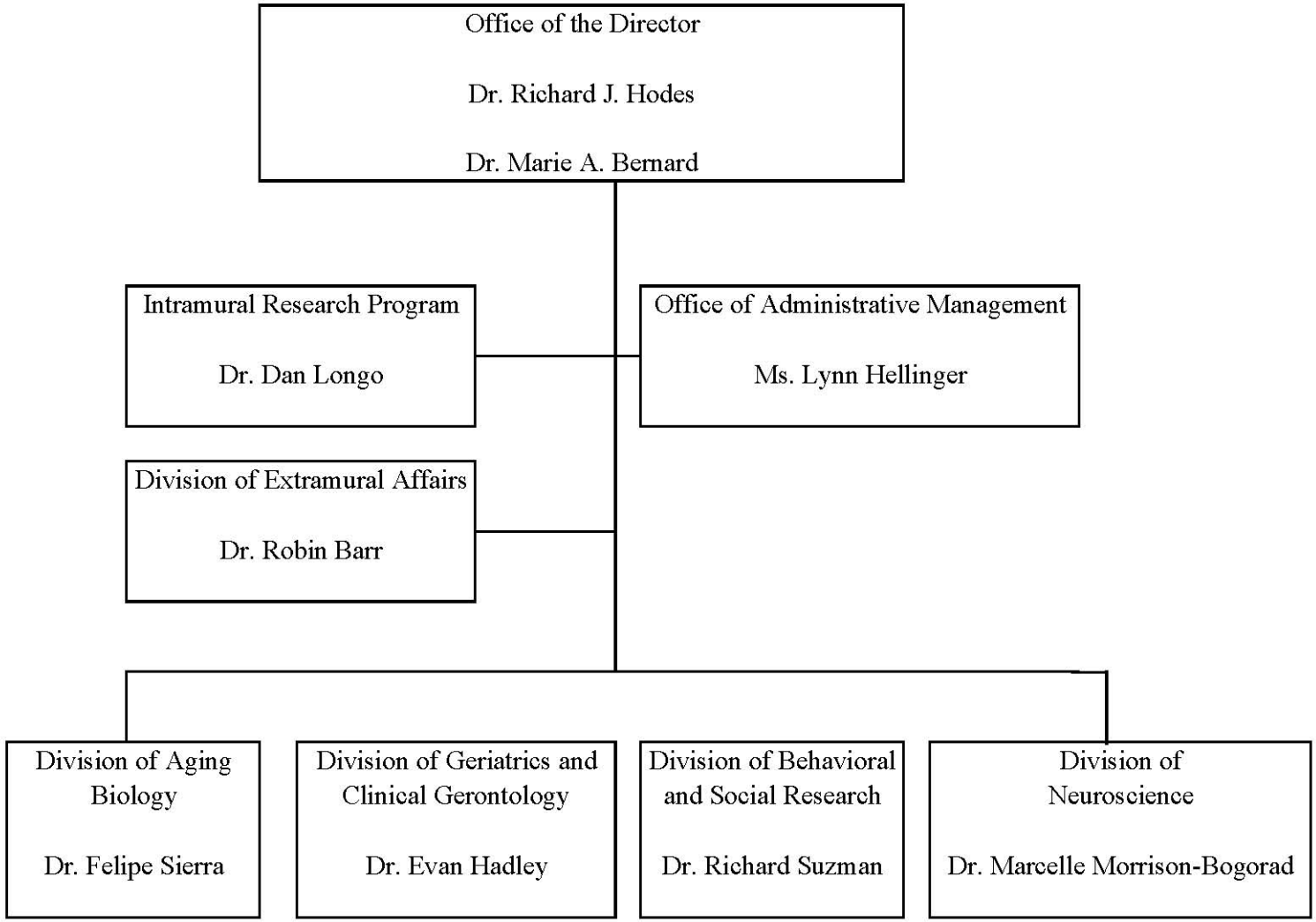
DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

National Institute on Aging (NIA)

NATIONAL INSTITUTES OF HEALTH
National Institute on Aging

Organizational Structure



NATIONAL INSTITUTES OF HEALTH

National Institute on Aging

For carrying out section 301 and title IV of the Public Health Services Act with respect to Aging [$1,080,796,000] *$1,093,143,000* (Department of Health and Human Services Appropriation Act, 2009*)*

National Institutes of Health
National Institute on Aging

Amounts Available for Obligation 1/

Source of Funding	FY 2008 Actual	FY 2009 Estimate	FY 2010 PB
Appropriation	$1,065,881,000	$1,080,796,000	$1,093,143,000
Type 1 Diabetes	0	0	0
Rescission	-18,621,000	0	0
Supplemental	5,570,000	0	0
Subtotal, adjusted appropriation	1,052,830,000	1,080,796,000	1,093,143,000
Real transfer under Director's one-percent transfer authority (GEI)	-1,792,000	0	0
Comparative transfer under Director's one-percent transfer authority (GEI)	1,792,000	0	0
Subtotal, adjusted budget authority	1,052,830,000	1,080,796,000	1,093,143,000
Unobligated balance, start of year	0	0	0
Unobligated balance, end of year	0	0	0
Subtotal, adjusted budget authority	1,052,830,000	1,080,796,000	1,093,143,000
Unobligated balance lapsing	-40,000	0	0
Total obligations	1,052,790,000	1,080,796,000	1,093,143,000

1/ Excludes the following amounts for reimbursable activities carried out by this account:
FY 2008 - $4,018,000 FY 2009 Estimate - $4,018,000 FY 2010 Estimate - $4,018,000

Excludes $23,354,000 Actual in FY 2008; Estimate $23,354,000 in FY 2009 and Estimate $24,000,000 in FY 2010 for royalties.

NATIONAL INSTITUTES OF HEALTH

National Institute on Aging

(Dollars in Thousands)

Budget Mechanism - Total

MECHANISM	FY 2008 Actual		FY 2009 Estimate		FY 2010 PB		Change	
Research Grants:	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Research Projects:								
Noncompeting	1,137	$504,108	1,067	$490,471	1,133	$536,402	66	$45,931
Administrative supplements	(112)	11,135	(120)	13,222	(0)	0	((120))	(13,222)
Competing:								
Renewal	87	56,487	100	67,784	87	58,970	(13)	-8,814
New	300	96,315	350	115,578	302	101,393	(48)	-14,185
Supplements	4	675	5	744	0	0	(5)	-744
Subtotal, competing	391	153,477	455	184,106	389	160,363	(66)	(23,743)
Subtotal, RPGs	1,528	668,720	1,522	687,799	1,522	696,765	0	8,966
SBIR/STTR	66	25,169	66	25,400	66	25,650	0	250
Subtotal, RPGs	1,594	693,889	1,588	713,199	1,588	722,415	0	9,216
Research Centers:								
Specialized/comprehensive	74	83,232	74	85,309	74	85,309	0	0
Clinical research	0	0	0	0	0	0	0	0
Biotechnology	0	0	0	0	0	0	0	0
Comparative medicine	0	678	0	691	0	691	0	0
Research Centers in Minority Institutions	0	0	0	0	0	0	0	0
Subtotal, Centers	74	83,910	74	86,000	74	86,000	0	0
Other Research:								
Research careers	223	28,551	230	29,465	230	29,907	0	442
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	512	0	526	0	533	0	7
Other	26	4,403	27	4,522	27	4,590	0	68
Subtotal, Other Research	249	33,466	257	34,513	257	35,030	0	517
Total Research Grants	1,917	811,265	1,919	833,712	1,919	843,445	0	9,733
Research Training:	FTTPs		FTTPs		FTTPs			
Individual awards	119	4,492	123	4,658	123	4,705	0	47
Institutional awards	462	18,790	477	19,485	477	19,680	0	195
Total, Training	581	23,282	600	24,143	600	24,385	0	242
Research & development contracts	122	70,336	122	71,591	122	71,591	0	0
(SBIR/STTR)	(1)	(59)	(1)	(59)	(1)	(59)	(0)	(0)
	FTEs		FTEs		FTEs		FTEs	
Intramural research	251	108,217	252	110,706	254	112,367	2	1,661
Research management and support	141	39,730	147	40,644	153	41,355	6	711
Total, NIA	392	1,052,830	399	1,080,796	407	1,093,143	8	12,347

NATIONAL INSTITUTES OF HEALTH
National Institute on Aging
BA by Program
(Dollars in thousands)

Extramural Research	FY 2006 Actual FTEs	FY 2006 Actual Amount	FY 2007 Actual FTEs	FY 2007 Actual Amount	FY 2008 Actual FTEs	FY 2008 Actual Amount	FY 2008 Comparable FTEs	FY 2008 Comparable Amount	FY 2009 Estimate FTEs	FY 2009 Estimate Amount	FY 2010 PB FTEs	FY 2010 PB Amount	Change FTEs	Change Amount
Detail:														
Aging Biology		$178,088		$179,394		$174,718		$175,065		$179,817		$181,747		1,930
Behavioral & Social Research		171,168		172,666		170,524		170,862		175,500		177,384		1,884
Neuroscience		418,807		414,962		424,251		425,093		436,632		441,317		4,685
Geriatrics & Clinical Gerontology		137,001		136,837		133,598		133,863		137,497		138,973		1,476
Subtotal, Extramural		905,064		903,859		903,091		904,883		929,446		939,421		9,975
Intramural research	246	102,607	247	102,566	251	108,217	251	108,217	252	110,706	254	112,367	2	1,661
Res. management & support	132	38,241	136	39,043	141	39,690	141	39,730	147	40,644	153	41,355	6	711
TOTAL	378	1,045,912	383	1,045,468	392	1,050,998	392	1,052,830	399	1,080,796	407	1,093,143	8	12,347

Major Changes in the Fiscal Year 2010 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 2010 budget request for NIA, which is $12.347 million more than the FY 2009 Estimate, for a total of $1.093 billion.

Research Project Grants (+$9.216 million; total $722.415 million): NIA will continue to support new investigators and to maintain an adequate number of competing RPGs. NIA will support a total of 1,522 Research Project Grant (RPG) awards in FY 2010, the same number as supported in FY 2009. Noncompeting RPGs will increase by 66 awards and $45.931 million. Competing RPGs will decrease by 66 awards and $23.743 million. The NIH Budget policy for RPGs in FY 2010 is to provide average cost increases for competing RPGs of two percent over FY 2009. Noncompeting RPG continuation awards will also receive a two percent inflationary increase in FY 2010.

Intramural Research (+$1.661 million; total $112.367 million): Intramural Research will receive an increase to help cover the costs of pay and other increases. NIA will work to identify areas of potential savings within the Intramural Research Program that will allow the institute to continue to achieve its program goals and accomplishments.

Research Management and Support (+$711 thousand; total $41.355 million): The NIA oversees over 1,900 research grants and 600 full-time training positions and over 120 research and development contracts. The 1.75 percent increase will partially be used to cover the expenses associated with pay raises and other inflationary cost increases necessary to provide for the effective, administrative, planning and evaluation, public information and communications, and scientific leadership of the institute.

NATIONAL INSTITUTES OF HEALTH
National Institute on Aging
Summary of Changes

FY 2009 estimate				$1,080,796,000
FY 2010 estimated budget authority				1,093,143,000
Net change				12,347,000
	2009 Current Estimate Base		Change from Base	
CHANGES	FTEs	Budget Authority	FTEs	Budget Authority
A. Built-in:				
1. Intramural research:				
a. Annualization of January 2009 pay increase		$43,368,000		$518,000
b. January FY 2010 pay increase		43,368,000		651,000
c. Zero less days of pay		43,368,000		0
d. Payment for centrally furnished services		9,838,000		197,000
e. Increased cost of laboratory supplies, materials, and other expenses		57,500,000		947,000
Subtotal				2,313,000
2. Research management and support:				
a. Annualization of January 2009 pay increase		$20,656,000		$247,000
b. January FY 2010 pay increase		20,656,000		310,000
c. Zero less days of pay		20,656,000		0
d. Payment for centrally furnished services		5,439,000		109,000
e. Increased cost of laboratory supplies, materials, and other expenses		14,549,000		246,000
Subtotal				912,000
Subtotal, Built-in				3,225,000

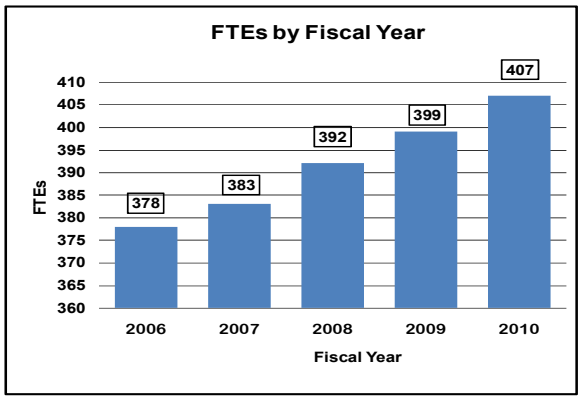
NATIONAL INSTITUTES OF HEALTH
National Institute on Aging

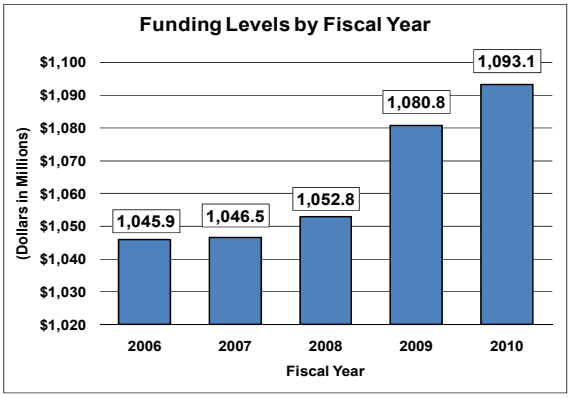
Summary of Changes--continued

CHANGES	2009 Current Estimate Base		Change from Base	
	No.	Amount	No.	Amount
B. Program:				
1. Research project grants:				
a. Noncompeting	1,067	$503,693,000	66	$32,709,000
b. Competing	455	184,106,000	(66)	(23,743,000)
c. SBIR/STTR	66	25,400,000	0	250,000
Total	1,588	713,199,000	0	9,216,000
2. Research centers	74	86,000,000	0	0
3. Other research	257	34,513,000	0	517,000
4. Research training	600	24,143,000	0	242,000
5. Research and development contracts	122	71,591,000	0	0
Subtotal, extramural				9,975,000
	FTEs		FTEs	
6. Intramural research	252	110,706,000	2	(652,000)
7. Research management and support	147	40,644,000	6	(201,000)
8. Construction		0		0
9. Buildings and Facilities		0		0
Subtotal, program		1,080,796,000		9,122,000
Total changes	399		8	12,347,000

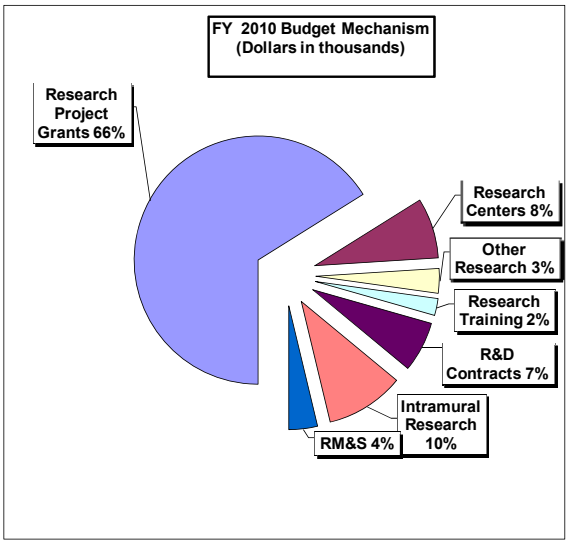
Fiscal Year 2010 Budget Graphs

History of Budget Authority and FTEs:

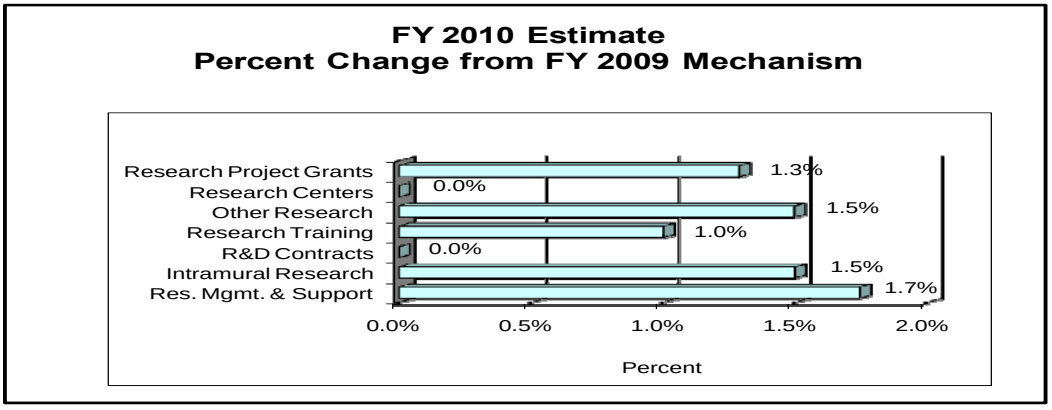




Distribution by Mechanism:



Change by Selected Mechanism



Justification
National Institute on Aging

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

	FY 2008 Appropriation	FY 2009 Omnibus	FY 2009 Recovery Act	FY 2010 President's Budget	FY 2010 +/- 2009 Omnibus
BA	$1,052,830,000	$1,080,796,000	$273,303,000	$1,093,143,000	+$12,347,000
FTE	392	399	---	407	+8

This document provides justification for the Fiscal Year (FY) 2010 activities of the National Institute on Aging (NIA), including HIV/AIDS activities. Details of the FY 2010 HIV/AIDS activities are in the "Office of AIDS Research (OAR)" Section of the Overview. Details on the Common Fund are located in the Overview, Volume One. Program funds are allocated as follows: Competitive Grants/Cooperative Agreements; Contracts; Direct Federal/Intramural and Other.

In FY 2009, a total of $273,303,000 American Recovery and Reinvestment Act (ARRA) funds were transferred from the Office of the Director. These funds will be used to support scientific research opportunities that help support the goals of the ARRA. The ARRA allows NIH to execute these funds via any NIH funding mechanism. Funds are available until September 30, 2010. These funds are not included in the FY 2009 Omnibus amounts reflected in this document.

Director's Overview

Much has been written about the "graying" of the American population, and our nation is indeed undergoing a tremendous demographic shift. Within 25 years, experts believe, some 70 million Americans will reach age 65 or older – fully double today's number in that age group. The number of "oldest old" – people age 85 or older – will more than quadruple by 2050, and this group is projected to include nearly one million centenarians, up from three thousand in 1950. As unprecedented numbers of Americans reach retirement age and beyond, profound changes will occur in our economic, health care, and social systems.

The good news is that even as the population ages, the rate of disability among older Americans continues to decline. The percentage of American elders reporting some level of disability fell from 26.5 percent in 1982 to 19 percent in 2004-2005, the most recent years for which estimates are available.[1] However, as the number of older Americans continues to rise, we are challenged to discover new and effective ways to

[1] Manton K, Gu X, Lamb VL. Change in chronic disability from 1982 to 2004/05 as measured by long-term changes in function and health in the U.S. elderly population. PNAS 2006 Nov; 103(48): 18374-18379.

make these added years as healthy and productive as possible and to continue the current trend of decline in disability across all segments of the population.

The National Institute on Aging (NIA) leads a national scientific effort to understand the nature of aging in order to promote the health and well being of older adults. NIA's mission is to:

- Support and conduct genetic, biological, clinical, behavioral, social, and economic research related to the aging process, diseases and conditions associated with aging, and other special problems and needs of older Americans.
- Foster the development of research- and clinician-scientists for research on aging.
- Communicate information about aging and advances in research on aging with the scientific community, health care providers, and the public.

We carry out our mission by supporting extramural research at universities and medical centers across the United States and around the world and a vibrant intramural research program at NIA laboratories in Baltimore and Bethesda, Maryland.

NIA's research programs are broad in scope. Some NIA-supported researchers focus on the biological basis of aging that may provide fundamental knowledge to predict or preempt disease. Others are working to gain new insights into disease processes and comorbidities and using this knowledge to develop more effective ways to prevent, diagnose, and treat diseases and conditions of aging. Still others are exploring behavioral and social factors involved in aging and how they interact with genetics and biology. All of this research holds potential for the development of personalized interventions. Behavioral and social scientists are also concerned with the economic and societal consequences of a rapidly aging population.

Understanding aging processes and developing interventions that will support healthy aging requires an approach that integrates the work of diverse scientific disciplines and promotes the translation of basic research findings into application in medical practice, public health, and policy development. For example, a major NIA initiative seeks to encourage more investigators to move from purely basic research on Alzheimer's disease and related disorders into translational research, drug testing in clinical trials, and development of effective behavioral interventions. Components of this initiative include solicitations for research grant proposals on drug discovery and preclinical development, as well as a program of toxicology services for academic and small business investigators who believe they have promising compounds for the treatment or prevention of Alzheimer's disease but lack the resources to perform the necessary toxicology studies. Additional initiatives are targeting the translation of our rapidly expanding understanding of the basic biology of aging to applications for prevention and treatment of a spectrum of age-related diseases and conditions.

An important aspect of research translation is communication of research results to the public. Through its award-winning communications initiatives, NIA reaches out to

researchers, health professionals, older adults and their families and caregivers, and the media to provide the latest research findings and evidence-based information on healthy aging and diseases associated with growing older. Key communications-related activities include two websites, the NIA's main site at www.nia.nih.gov and the Alzheimer's-dedicated Alzheimer's Disease Education and Referral (ADEAR) Center at www.alzheimers.org.

NIA optimizes its efforts through collaborations with other federal, nonprofit, private, and international partners. Major collaborative efforts such as the Osteoarthritis Initiative with the National Institute of Musculoskeletal and Skin Disorders; the Alzheimer's Disease Neuroimaging Initiative with an array of federal, private, and nonprofit organizations; and the Cognitive and Emotional Health Project with the National Institute for Neurological Diseases and Stroke and the National Institute of Mental Health provide the opportunity for the Institute to build synergy and leverage resources in pursuit of our overall goal to make it possible for people to have not only longer but healthier and more productive lives in the 21st century.

In the following pages, we describe some of our plans for progress in FY 2010. Our recently updated strategic directions document, *Living Long and Well in the 21st Century: Strategic Directions for Research on Aging,* is available online at **www.nia.nih.gov/About**NIA/StrategicDirections**.**

Consistent with the NIH policy to double NIH-wide cancer research spending and to increase spending for autism research, NIA plans to increase its efforts in these areas. In FY 2010, NIA will continue its support of research on cancer etiology, detection, treatment, and care through investigator-initiated research projects throughout the Nation and through the work of basic and clinical scientists in the Institute's Intramural Research Program. Research will also continue under two solicitations that encourage translational projects linking basic and clinical research relevant to the care of older cancer patients through "bench to bedside" and "bedside to bench" approaches. In addition to the broad areas highlighted by these solicitations, NIA staff will continue to collaborate with NCI colleagues in the development of targeted initiatives addressing specific aspects in cancer and aging. In the area of autism research, NIA will continue support for a long-running study of the factors influencing the health and well being of mothers of adolescents and adults with autism spectrum disorders.

Overall Budget Policy

NIA will continue to support new investigators and to maintain an adequate number of competing RPGs. NIA is providing a 2 percent inflationary increase for non-competing and competing grants. In addition, the NIA has targeted a portion of the funds available for competing research project grants to support high priority projects outside of the payline, including awards to new investigators, and early stage investigators. The Institute also seeks to maintain a balance between solicitations issued to the extramural community in areas that need stimulation and funding made available to support

investigator-initiated projects. Intramural Research and Research Management and Support receive modest increases to help offset the cost of pay and other increases.

Program Descriptions and Accomplishments

Biology of Aging Program:
Understanding Aging Processes, Health, and Longevity

Investigators supported by NIA's Biology of Aging Program seek to better understand the basic biological mechanisms underlying the process of aging and age-related diseases. Basic biochemical, genetic, and physiological studies are carried out primarily in animal models, including both mammals and non-mammalian organisms (e.g., flies, worms, yeast). The program's goal is to provide the biological basis for interventions in the process of aging, which is the major risk factor for many chronic diseases affecting the American population.

In FY 2008, NIA held a "Biology of Aging Summit" to review the program's current research portfolio, identify areas of opportunity, and facilitate the formulation of cohesive and comprehensive plans for the future.

Budget Policy: The FY 2010 budget estimate for the Biology of Aging Program is $181.747 million, an increase of $1.930 million or 1.1 percent over the FY 2009 estimate. Program objectives for FY 2010 include plans to increase our understanding of the aging immune system, particularly through a new grant initiative established in partnership with the National Institute of Allergy and Infectious Diseases; develop new tools to track cell turnover and cell fates in humans and animal models; and continue the search for interventions that extend the lifespan through the Intervention Testing Program (ITP) and other efforts. The ITP is an NIA-supported project investigating an array of treatments that have the potential to extend the lifespan and delay disease and dysfunction in a mouse model. This program is the primary mechanism through which NIA is working to achieve its GPRA goal "By 2012, identify at least one candidate intervention that extends median life span in an animal model."

Behavioral and Social Research Program:
Understanding and Addressing the Behavioral, Emotional, and Social Dynamics of Aging

NIA's Behavioral and Social Research Program supports social and behavioral research to better understand the processes of aging at both the individual and societal level. Research areas include the behavioral, emotional, and social changes individuals undergo throughout the adult lifespan; interrelationships between older people and social institutions; and the societal impact of the changing age composition of the population. The program also supports research training; development of research resources such as publicly available, cross-nationally comparable databases that support critical multidisciplinary behavioral and social research; and a knowledge base

for the development of interventions to maximize active life and health expectancy. The program coordinates the highly successful Centers on the Demography and Economics of aging and Roybal Centers for Applied Gerontology. Both center programs will be renewed in FY 2009. The program also coordinates NIA's Resource Centers for Minority Aging Research (RCMARs), a program whose objectives include increasing the diversity of the research on aging scientific workforce and the development of recruitment and retention strategies for minority aging research.

Budget Policy: The FY 2010 budget estimate for the Behavioral and Social Research Program is $177.384 million, an increase of $1.884 million or 1.1 percent over the FY 2009 estimate. Program objectives for FY 2010 include plans to continue major demographic studies that provide important insights into social and economic trends, including the Health and Retirement Study and, in partnership with the U.S. Census Bureau, the Federal Forum on aging; support development of comparable international data for cross-national analysis of institutional factors on health and well-being; support development of National Health Accounts to measure both the costs of health sector inputs and the value of health outcomes; continue to support research on U.S. disability trends, particularly through the newly established National Study of Disability Trends and Dynamics; support research initiatives to address financial challenges faced by American elders; and support research on behavioral processes at the individual level related to the preservation of social integration, cognitive abilities, health, and well being.

Program Portrait: Researching the Economics of Aging
FY 2009 level: $24,200,000
FY 2010 level: $24,600,000
Change: $ 400,000

The aging of the American population will have profound implications for economic activities at the individual, local, national, and even global levels. What factors influence financial planning and retirement decisions among older adults? How will changes in the Nation's demographic makeup affect public and private retirement and health insurance programs? What impact will recent changes in Federal programs such as Medicare have on retirees? What are the interrelationships between health and economic status – and what are the implications of these relationships?

NIA-supported investigators explore these and related questions through a robust program of research on the economics of aging. Studies in this area focus on a variety of themes. For example, NIA supports a rich set of analyses related to Medicare, including research on the Part D prescription drug program and the impact on expenditures and health when people move from uninsured status onto Medicare.

A new solicitation to stimulate the development of models for forecasting Medicare expenditures or to provide insight into key aspects of that forecasting will be active in FY2010. Because the circumstances under which they retire are critical to the well being of older adults, NIA supports research to develop comprehensive econometric models of retirement that account for wealth, social programs, health, and family factors. Because cross-national analyses provide unique opportunities to weigh the impact of institutions on health and well being, NIA also supports work to harmonize international data sources along with innovative longitudinal data from U.S. sources such as the Health and Retirement Study. NIA has also supported research on automatic enrollment in 401(k) retirement savings that has informed public policy and will continue to encourage development of behavioral economics interventions to improve health and well being in retirement. Along these lines, NIA has initiated an interdisciplinary effort

linking economics, psychology, and neuroscience to explore the social, emotional, and cognitive processes and neurobiological mechanisms that underlie economic decisions.

NIA supports research center programs aimed at facilitating research in critical areas. This includes the Centers on the Demography and Economics of Aging program, established in 1994 to foster research in demography, economics, and epidemiology of aging and to promote the use of important datasets in the field. The many achievements of this program were recognized in September 2008 with the Heidelberg Award for Significant Contributions to the Field of Gerontology, a triennial international competition. NIA's Roybal Centers for Translational Research on Aging were established in 1993 to translate promising social and behavioral basic research findings, including demographic and economic research, into programs and practices that will improve the lives of older people and the capacity of institutions to adapt to societal aging. Both of these programs were recently renewed and will be active in FY2010.

Neuroscience Program: Understanding, Preventing, and Treating Cognitive Decline and Disability

NIA's Neuroscience Program supports a broad spectrum of research and training aimed at better understanding age-related normal and pathological changes in the structure and function of the aging nervous system and how such changes affect behavior. The basic mission is to expand knowledge on the aging nervous system to allow improvement in the quality of life of older people. This includes basic and clinical studies of the nervous system, clinical trials of treatments and preventive interventions for neurological disease, and epidemiological research to identify risk factors and to establish prevalence and incidence estimates of pathologic conditions. Additionally, it supports research relevant to problems arising from psychiatric and neurological disorders associated with aging.

Budget Policy: The FY 2010 budget estimate for the Neuroscience Program is $441.317 million, an increase of $4.685 million or 1.1 percent over the FY 2009 estimate. Program objectives for FY 2010 include plans to continue to support a comprehensive research program on Alzheimer's disease (AD) prevention, diagnosis, treatment, and care. Components of this program include a preclinical drug development program, a pilot trials initiative, the groundbreaking AD Neuroimaging Initiative, a Genetics Initiative to facilitate identification of genes that contribute to late-onset AD (the more common form of the disease), and a newly-established consortium to follow and evaluate individuals who are genetically predisposed to develop early-onset AD. In addition, NIA will continue to support research on normal changes in cognitive health that occur with age, particularly through ongoing participation in the NIH Cognitive and Emotional Health Project and the NIH Toolbox initiative on the development of brief and comprehensive assessment tools for cognitive and behavioral health, and will continue to support research on the neurobiology of aging, including studies of sensory and motor function; sleep and biological rhythms; the neural mechanisms underlying age-related changes in endocrine functions; neurodegenerative diseases of aging associated with infectious agents; and central nervous system, neuroendocrine system, and immune system interactions in aging.

Geriatrics and Clinical Gerontology Program:
Reducing Disease and Disability among Older People

As we age, our risk for many other types of disease and/or disability increases dramatically. NIA's Geriatrics and Clinical Gerontology Program supports research on health, disease, and disability in the aged (other than neurodegeneration, which is the focus of the NIA's Neuroscience Program). Areas of focus include age-related physical changes and their relationship to health outcomes, the maintenance of health and the development of disease, and specific age-related risk factors for disease. The program also plans and administers clinical trials. In addition, the program coordinates the Claude D. Pepper Older American Independence Centers Program, the goal of which is to increase scientific knowledge leading to better ways to maintain or restore independence in older persons. The eleventh Pepper center was established in FY 2008, and a twelfth will be established in FY 2009.

Budget Policy: The FY 2010 budget estimate for the Geriatrics and Clinical Gerontology Program is $138.973 million, an increase of $1.476 million or 1.1 percent over the FY 2009 estimate. Program objectives for FY 2010 include plans to continue studies of venous and arterial thrombosis, anemia, and other age-related conditions in the elderly. In partnership with the National Heart, Lung and Blood Institute, NIA will also support research to identify childhood factors that may exert a protective effect on health later in life. Finally, NIA will support studies on nutrition, weight loss and maintenance, and exercise in the elderly.

Program Portrait – Preventing Falls in Older Adults
FY 2009 level: $7,300,000
FY 2010 level: $7,400,000
Change: $ 100,000

Falls are the leading cause of both fatal and nonfatal injury in Americans ages 65 and older. They can result from multiple factors, including age-related changes to balance, gait, and physical strength. In a recent study, investigators at the Centers for Disease Control and Prevention estimated that approximately 5.8 million people age 65 or older, or 15.9% of all U.S. adults in that age group, fell at least once during the preceding three months, and nearly a third of those who fell sustained an injury that resulted in a doctor visit or restricted activity for at least one day. [1]

NIA-supported researchers are conducting a number of studies aimed at reducing the incidence and severity of falls among older adults in the United States. For example, one study is attempting to determine the extent to which vitamin D insufficiency is associated with increased risk of falling. Another is examining the effects of outdoor neighborhood environmental characteristics (e.g., limited availability and poor features and condition of sidewalks, lack of walkable streets, poor maintenance of outdoor parks and recreation areas) on risk of outdoor falls among community-dwelling older people. The results of this study may suggest intervention strategies that could improve the living environment for older adults in the community. Other studies focus on development of strategies to improve strength, balance, and gait in the elderly.

Studies have also shown that although some effective interventions to prevent falls in the elderly have been identified, they are often underused. A recent study conducted by the NIA-supported Claude D. Pepper Older Americans Independence Center at Yale University found that a comprehensive health

promotion effort targeted at primary care clinicians and other health professionals who work with elderly patients was associated with a significant reduction in serious injuries from falls, suggesting that effective dissemination of information about fall prevention may reduce numbers of falls and serious injuries and underscoring the importance of health promotion efforts in public health and clinical practice.

[1]Stevens JA et al. Self-Reported Falls and Fall-Related Injuries Among Persons Aged ≥ 65 Years – United States, 2006. *Journal of the American Medical Association* 299: 1658-1659, 2008.

Intramural Research at NIA

NIA's Intramural Research Program (IRP) includes the scientific disciplines of biochemistry, cell and molecular biology, structural biology, genetics, immunology, neurogenetics, behavioral sciences (psychology, cognition, and psychophysiology), epidemiology, statistics, and clinical research and the medical disciplines of neurobiology, immunology, endocrinology, cardiology, rheumatology, hematology, oncology, and gerontology. The program seeks to understand the changes associated with healthy aging and to define the criteria for evaluating when a change becomes pathologic. Studies focus on both common age-related diseases (e.g., Alzheimer's disease, Parkinson's disease, stroke, atherosclerosis, osteoarthritis, diabetes, cancer) and the determinants of healthy aging.

In FY 2009, the NIA IRP sustained a program of high-quality research on the basic biochemical and molecular underpinnings of aging and age-related diseases and conditions. In addition, IRP investigators conducted clinical research on a variety of conditions, including studies of the etiology of anemia, treatment trials for lymphoma, and studies to better understand several connective tissue disorders. In addition, work continued under the groundbreaking Baltimore Longitudinal Study of Aging, which celebrated its fiftieth anniversary in 2008.

Budget Policy: The FY 2010 budget estimate for the NIA's Intramural Research Program is $112.367 million, an increase of $1.661 million or 1.5 percent over the FY 2009 estimate. Additional funds will be used to partially offset the costs associated with pay raises and other increases. Program objectives for FY 2010 include plans to determine the effectiveness of already available therapeutic agents for prevention in models of heart disease; for example, animal studies suggest that the compound fenoterol, widely used for treatment of pulmonary disease, may be effective in treatment of congestive heart failure, and other studies (also in animals) have shown that the drug erythropoietin, used to treat certain types of anemia, has a protective effect on the heart if administered shortly after a heart attack. An IRP clinical trial to establish the safety and efficacy of erythropoietin in humans who have suffered a heart attack was initiated in 2006 and is ongoing. In addition, the NIA IRP will continue to study the effects of obesity and sarcopenia on health outcomes through the Health, Aging, and Body Composition (Health ABC) study; continue to study the driving factors behind persistent black-white health disparities in overall longevity, cardiovascular disease, and cerebrovascular disease through the groundbreaking Healthy Aging in Neighborhoods

of Diversity Across the Life Span (HANDLS) study; and identify genes associated with age-related changes to health and function through the SardiNIA project and the Age, Gene/Environment Susceptibility study.

Program Portrait: The Baltimore Longitudinal Study of Aging
FY 2009 level: $6,300,000
FY 2010 level: $6,400,000
Change: $ 100,000

In 2008, the world's most comprehensive and longest running longitudinal examination of human aging celebrated an extremely productive fifty years of ground-breaking research that has transformed the field of geriatrics. Since its establishment in 1958, the NIA-supported Baltimore Longitudinal Study of Aging (BLSA) has provided a wealth of information on the physical consequences of aging and has helped distinguish changes related to aging from those due to disease, genetic makeup, environmental or lifestyle factors, or other causes.

The BLSA has been the first study to ask and attempt to answer the fundamental question "What is 'normal' aging?" Although there is still much to learn, BLSA findings have led us to two major conclusions. First, certain body changes and decline are a part of "normal" aging and do not necessarily lead to disease. And second, there is no single, chronological timetable of aging. We all age differently, and the rate of aging varies both for individuals over time and from one person to the next based on genetic, lifestyle, and disease processes. Although these two paradigms may seem like "common knowledge" today, they represent a radical departure from the conventional wisdom of the mid-twentieth century and have led to several changes in the way we have addressed the health of older Americans.

Over the past fifty years, BLSA scientists have produced a number of notable findings. For example, they found that, contrary to popular belief, people don't naturally become cranky, depressed, or withdrawn as they age. In fact, an adult's personality remains relatively stable after age 30. Another major BLSA finding has been the discovery of the relationship between PSA (prostate-specific antigen) levels and prostate cancer. BLSA scientists have also elucidated the relationship between age-related changes in the arteries and cardiovascular disease and distinguished normal age-related declines in cognitive ability from those associated with Alzheimer's disease and related conditions.

In 2009, the BLSA will initiate the Insight into the Determinants of Exceptional Aging and Longevity (IDEAL) substudy to examine a spectrum of characteristics found present in individuals over age 80 who are living free of physical or cognitive disease. The study will help uncover mechanisms that are important to exceptional aging and how they might translate into actions that promote health and physical function in older adults.

Research Management and Support

NIA RMS activities provide administrative, budgetary, logistical, and scientific support in the review, award, and monitoring of research grants, training awards and research and development contracts. RMS functions also encompass strategic planning, coordination, and evaluation of the Institute's programs, regulatory compliance, international coordination, and liaison with other Federal agencies, Congress, and the public. The Institute currently oversees more than 1,900 research project grants and

centers, as well as 600 full-time training positions and more than 120 research and support contracts.

Budget Policy: The FY 2010 budget estimate for NIA's Research Management and Support is $41.355 million, an increase of $711 thousand or 1.75 percent over the FY 2009 estimate. Additional funds will be used to partially offset the costs associated with pay raises and other increases.

Roadmap Initiatives

The NIA participates in the support of the following Roadmap initiatives funded through the NIH Common Fund:

- Interdisciplinary Research Consortium
- Using Metabolomics to Investigate Biological Pathways and Networks
- Supplements for Methodological Innovations – Behavioral and Social Science

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Budget Authority by Object

	FY 2009 Estimate	FY 2010 PB	Increase or Decrease
Total compensable workyears:			
Full-time employment	399	407	8
Full-time equivalent of overtime and holiday hour	1	1	0
Average ES salary	$177,400	$182,700	$5,300
Average GM/GS grade	11.5	11.5	0.0
Average GM/GS salary	$90,100	$93,700	$3,600
Average salary, grade established by act of July 1, 1944 (42 U.S.C. 207)	$100,821	$104,854	$4,033
Average salary of ungraded positions	138,906	144,462	5,556

OBJECT CLASSES	FY 2009 Estimate	FY 2010 Estimate	Increase or Decrease
Personnel Compensation:			
11.1 Full-time permanent	$26,437,000	$27,814,000	$1,377,000
11.3 Other than full-time permanent	14,156,000	14,711,000	555,000
11.5 Other personnel compensation	1,276,000	1,340,000	64,000
11.7 Military personnel	396,000	415,000	19,000
11.8 Special personnel services payments	9,434,000	9,763,000	329,000
Total, Personnel Compensation	51,699,000	54,043,000	2,344,000
12.0 Personnel benefits	12,063,000	12,619,000	556,000
12.2 Military personnel benefits	262,000	273,000	11,000
13.0 Benefits for former personnel	0	0	0
Subtotal, Pay Costs	**64,024,000**	**66,935,000**	**2,911,000**
21.0 Travel and transportation of persons	1,432,000	1,376,000	(56,000)
22.0 Transportation of things	188,000	181,000	(7,000)
23.1 Rental payments to GSA	0	0	0
23.2 Rental payments to others	2,000	2,000	0
23.3 Communications, utilities and miscellaneous charges	898,000	864,000	(34,000)
24.0 Printing and reproduction	162,000	151,000	(11,000)
25.1 Consulting services	1,445,000	1,428,000	(17,000)
25.2 Other services	17,907,000	17,582,000	(325,000)
25.3 Purchase of goods and services from government accounts	83,871,000	85,226,000	1,355,000
25.4 Operation and maintenance of facilities	1,198,000	1,191,000	(7,000)
25.5 Research and development contracts	38,056,000	36,719,000	(1,337,000)
25.6 Medical care	279,000	278,000	(1,000)
25.7 Operation and maintenance of equipment	1,490,000	1,481,000	(9,000)
25.8 Subsistence and support of persons	0	0	0
25.0 Subtotal, Other Contractual Services	**144,246,000**	**143,905,000**	**(341,000)**
26.0 Supplies and materials	9,402,000	9,351,000	(51,000)
31.0 Equipment	2,575,000	2,536,000	(39,000)
32.0 Land and structures	0	0	0
33.0 Investments and loans	0	0	0
41.0 Grants, subsidies and contributions	857,855,000	867,830,000	9,975,000
42.0 Insurance claims and indemnities	0	0	0
43.0 Interest and dividends	12,000	12,000	0
44.0 Refunds	0	0	0
Subtotal, Non-Pay Costs	**1,016,772,000**	**1,026,208,000**	**9,436,000**
Total Budget Authority by Object	**1,080,796,000**	**1,093,143,000**	**12,347,000**

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Salaries and Expenses

OBJECT CLASSES	FY 2009 Estimate	FY 2010 PB	Increase or Decrease
Personnel Compensation:			
Full-time permanent (11.1)	$26,437,000	$27,814,000	$1,377,000
Other than full-time permanent (11.3)	14,156,000	14,711,000	555,000
Other personnel compensation (11.5)	1,276,000	1,340,000	64,000
Military personnel (11.7)	396,000	415,000	19,000
Special personnel services payments (11.8)	9,434,000	9,763,000	329,000
Total Personnel Compensation (11.9)	**51,699,000**	**54,043,000**	**2,344,000**
Civilian personnel benefits (12.1)	12,063,000	12,619,000	556,000
Military personnel benefits (12.2)	262,000	273,000	11,000
Benefits to former personnel (13.0)	0	0	0
Subtotal, Pay Costs	**64,024,000**	**66,935,000**	**2,911,000**
Travel (21.0)	1,432,000	1,376,000	(56,000)
Transportation of things (22.0)	188,000	181,000	(7,000)
Rental payments to others (23.2)	2,000	2,000	0
Communications, utilities and miscellaneous charges (23.3)	898,000	864,000	(34,000)
Printing and reproduction (24.0)	162,000	151,000	(11,000)
Other Contractual Services:			
Advisory and assistance services (25.1)	1,445,000	1,428,000	(17,000)
Other services (25.2)	17,907,000	17,582,000	(325,000)
Purchases from government accounts (25.3)	52,143,000	52,199,000	56,000
Operation and maintenance of facilities (25.4)	1,198,000	1,191,000	(7,000)
Operation and maintenance of equipment (25.7	1,490,000	1,481,000	(9,000)
Subsistence and support of persons (25.8)	0	0	0
Subtotal Other Contractual Services	**74,183,000**	**73,881,000**	**(302,000)**
Supplies and materials (26.0)	9,392,000	9,341,000	(51,000)
Subtotal, Non-Pay Costs	86,257,000	85,796,000	(461,000)
Total, Administrative Costs	**150,281,000**	**152,731,000**	**2,450,000**

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Authorizing Legislation

	PHS Act/ Other Citation	U.S. Code Citation	2009 Amount Authorized	FY 2009 Estimate	2010 Amount Authorized	FY 2010 PB
Research and Investigation	Section 301	42§241	Indefinite	$1,080,796,000	Indefinite	$1,093,143,000
	Section 402(a)	42§281	Indefinite		Indefinite	
National Institute on Aging						
Total, Budget Authority				1,080,796,000		1,093,143,000

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Appropriations History

Fiscal Year	Budget Estimate to Congress	House Allowance	Senate Allowance	Appropriation 1/
2001	721,651,000 2/	790,299,000	794,625,000	786,039,000
Rescission				(285,000)
2002	879,961,000	873,186,000	909,174,000	893,443,000
Rescission				(313,000)
2003	958,155,000	958,155,000	1,000,099,000	1,000,099,000
Rescission				(6,501,000)
2004	994,411,000	994,411,000	1,031,411,000	1,024,598,000
Rescission				(6,557,000)
2005	1,055,666,000	1,055,666,000	1,094,500,000	1,060,666,000
Rescission				(8,676,000)
2006	1,057,203,000	1,057,203,000	1,090,600,000	1,057,203,000
Rescission				(10,572,000)
2007	1,039,828,000	1,039,828,000	1,039,828,000	1,039,828,000
2008	1,047,148,000	1,062,833,000	1,073,048,000	1,047,260,000
Rescission				(18,621,000)
2009	1,048,278,000	1,084,321,000	1,077,448,000	1,080,796,000
2010	1,093,143,000			

1/ Reflects enacted supplementals, rescissions, and reappropriations.
2/ Excludes funds for HIV/AIDS research activities consolidated in the NIH Office of AIDS Research.

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Details of Full-Time Equivalent Employment (FTEs)

OFFICE/DIVISION	FY 2008 Actual	FY 2009 Estimate	FY 2010 PB
Office of the Director	25	25	26
Intramural Research Program	251	252	254
Office of Administrative Management	35	36	38
Division of Extramural Affairs	27	28	29
Division of Aging Biology	12	14	14
Division of Geriatrics & Clinical Gerontology	13	13	13
Division of Behavioral & Social Research	12	13	14
Division of Neuroscience	17	18	19
Total	392	399	407
Includes FTEs which are reimbursed from the NIH Roadmap for Medical Research			
FTEs supported by funds from Cooperative Research and Development Agreements	(0)	(0)	(0)

FISCAL YEAR	Average GM/GS Grade
2006	11.5
2007	11.4
2008	11.5
2009	11.5
2010	11.5

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Detail of Positions

GRADE	FY 2008 Actual	FY 2009 Estimate	FY 2010 PB
Total, ES Positions	1	1	1
Total, ES Salary	172,200	177,400	182,700
GM/GS-15	35	36	37
GM/GS-14	30	32	33
GM/GS-13	41	42	47
GS-12	69	71	71
GS-11	37	37	37
GS-10	2	2	2
GS-9	35	35	36
GS-8	12	12	12
GS-7	18	18	18
GS-6	7	7	7
GS-5	2	2	2
GS-4	1	1	1
GS-3	0	0	0
GS-2	0	0	0
GS-1	0	0	0
Subtotal	289	295	303
Grades established by Act of July 1, 1944 (42 U.S.C. 207):			
Assistant Surgeon General	0	0	0
Director Grade	3	3	3
Senior Grade	0	0	0
Full Grade	0	0	0
Senior Assistant Grade	0	0	0
Assistant Grade	0	0	0
Subtotal	3	3	3
Ungraded	110	110	110
Total permanent positions	293	299	305
Total positions, end of year	403	409	417
Total full-time equivalent (FTE) employment, end of year	392	399	407
Average ES salary	172,200	177,400	182,700
Average GM/GS grade	11.5	11.5	11.5
Average GM/GS salary	85,876	90,100	93,700

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New Positions Requested

	FY 2010		
	Grade	Number	Annual Salary
Health Scientist Administrator	GS 15	1	$145,000
Health Scientist Administrator	GS 13	3	95,000
Ethics Counselor	GS 14	1	110,000
Program Assistant	GS 9	1	70,000
Investigator	GS 13	2	95,000
Total Requested		8	