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NIH Funding: FY1994-FY2018

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The National Institutes of Health (NIH) is the primary federal agency charged with conducting and supporting biomedical and behavioral research. Its activities cover a wide range of basic, clinical, and translational research, focused on particular diseases, areas of human health and development, or more fundamental aspects of biomedical research. Its mission also includes research training and health information collection and dissemination.[1] About 81% of the NIH budget funds extramural research through grants, contracts, and other awards.[2] This funding supports research performed by more than 30,000 individuals who work at more than 2,500 universities, hospitals, medical schools, and other research institutions around the country.[3] About 19% of the agency's budget supports clinical and basic research, performed by NIH physicians and scientists in the NIH Clinical Center and laboratories, as well as personnel training and facilities maintenance and construction.[4]

Funding for NIH comes primarily from the annual Labor, Health and Human Services (HHS), Education and Related Agencies appropriations bill, with an additional amount for Superfund-related activities from the Interior/Environment appropriations bill. Those two bills provide NIH's discretionary budget authority.[5] In addition, NIH receives mandatory funding of $150 million annually that is provided in the Public Health Service (PHS) Act for a special program on type 1 diabetes research and funding from a PHS Act transfer. The total funding available for NIH activities, taking account of add-ons and transfers, is known as the NIH program level.

Table 1 outlines NIH program level funding over the past 24 years, and **Figure 1** illustrates funding trends in both current (also called nominal dollars) and constant (i.e., inflation-adjusted) 2015 dollars. Between FY1994 and FY1998, funding for NIH grew from $11.0 billion to $13.7 billion in nominal terms. Over the next five years, Congress doubled the NIH budget to $27.2 billion in FY2003. In each of these years, the agency received annual funding increases of 14% to 16%. Since FY2003, however, NIH funding has increased more gradually in nominal dollars. Funding peaked in FY2010 before declining in FY2011 through FY2013 with small increases in subsequent years.[6] In some years, funding for the agency decreased in nominal dollars. For instance:

- the FY2006 total was 0.1% lower than the previous year, the first time that the NIH appropriation had decreased since FY1970;

[1] For further information on NIH, see CRS Report R41705, *The National Institutes of Health (NIH): Background and Congressional Issues* .

[2] Department of Health and Human Services, *Fiscal Year 2017 Budget in Brief*, Washington, DC, February 9, 2015, p. 47, http://www.hhs.gov/sites/default/files/fy2017-budget-in-brief.pdf.

[3] Ibid.

[4] Ibid.

[5] NIH received a total of $10.4 billion in supplemental, one-time FY2009 appropriations in the American Recovery and Reinvestment Act (ARRA) of 2009 (P.L. 111-5). ARRA funds were made available for obligation for two years; $4.95 billion was obligated in FY2009, and $5.45 billion in FY2010. CRS Report R43304, *Public Health Service Agencies: Overview and Funding (FY2010-FY2016).*

[6] Amounts shown in **Table 1** include appropriations for the Global Fund to Fight AIDS, TB, and Malaria (FY2002-FY2011) that were subject to transfer-out. As of FY2012, NIH no longer receives appropriations for the National Institute of Allergy and Infectious Diseases (NIAID) identifying resources for the Global Fund; this responsibility was transferred to another federal agency. For further details on the amounts transferred out by fiscal year, see the "Supplemental Appropriation Data Table" for "History of Congressional Appropriations, Fiscal Years 2000-2012" at http://officeofbudget.od.nih.gov/approp_hist.html.

- the FY2011 total, provided in the Full-Year Continuing Appropriations Act, 2011 (P.L. 112-10), was 1.0% below the previous year; and
- the FY2013 total, provided in the Consolidated and Further Continuing Appropriations Act, 2013 (P.L. 113-6), was reduced by the March 2013 sequestration and a transfer of funding under the authority of the HHS Secretary ($1.553 billion and $173 million respectively), resulting in a budget that was 5.0% lower than the prior year.[7]

The NIH program level in FY2016 was $32.311 billion, which included $77 million for Superfund-related research and the $150 million in diabetes funding.[8] The Consolidated Appropriations Act, 2016 (H.R. 2029, P.L. 114-113), provided $32.084 billion for NIH in Division H (the Labor/HHS and Education appropriations act): $31.304 billion for the NIH institutes and centers plus $780 million in funding via the PHS Act transfer.[9]

For FY2017, the Obama Administration requested an NIH program level total of $33.136 billion, an increase of $825 million (2.6%) over FY2016. The FY2017 program level request for NIH includes $150 million in mandatory funding for research on type 1 diabetes and $77 million for Superfund-related research. The FY2017 program level request also proposed $847 million in funding transferred to NIH by the PHS Act transfer and $1.825 billion in additional mandatory funds. The FY2017 request included $755 million for the Cancer Moonshot; $680 million was allocated for the National Cancer Institute at NIH, and $75 million would be transferred from NIH to the Food and Drug Administration.

The House Appropriations Committee-reported version of the FY2017 Labor/HHS/ED appropriations bill (H.R. 5926) would have provided NIH with a total of $33.334 billion, including $792 million in funding via the PHS Act transfer. Adding to this total the amounts for Superfund-related activities ($77 million) and the mandatory type 1 diabetes program ($150 million) would have brought the FY2017 NIH program level to $33.561 billion. The Senate Appropriations Committee-reported version of the FY2017 Labor/HHS/ED appropriations bill (S. 3040) would have provided NIH with a total of $34.084 billion, including $857 million provided by the PHS Act transfer and an estimated $300 million in new funding from the HHS Non-

[7] The FY2012 amount of $30.861 billion appears to be 0.2% below the FY2011 amount of $30.916 billion. However, the FY2011 amount includes $297.3 million that was subject to transfer-out for the Global Fund to Fight AIDS, TB, and Malaria.

[8] Superfund amount provided by Division G of P.L. 114-113, the Department of the Interior, Environment, and Related Agencies Appropriations Act, 2016. Mandatory funds for type 1 diabetes research (under PHS Act §330B) provided by P.L. 114-10 for FY2016 and FY2017.

[9] NIH and other HHS agencies and programs authorized under the PHS Act are subject to a budget assessment called the PHS Program Evaluation Set-Aside, also called the evaluation tap. Section 241 of the PHS Act (42 U.S.C. §238j) authorizes the Secretary of HHS to use a portion of eligible appropriations to study the effectiveness of federal health programs and to identify improvements. Although the PHS Act limits the evaluation tap to no more than 1% of eligible appropriations, in recent years the annual Labor/HHS/ED appropriations act has specified a higher amount (2.5% in FY2015 and FY2016) and directed specific amounts of funding from the evaluation tap for transfer to a number of HHS programs. The set-aside has the effect of redistributing appropriated funds for specific purposes among PHS and other HHS agencies. NIH, with the largest budget among the PHS agencies, has traditionally been the largest "donor" of program evaluation funds and, until recently, a relatively minor recipient. For FY2015, although NIH contributed an estimated $700 million to the tap, it received $715 million under P.L. 113-235, the Consolidated and Further Continuing Appropriations Act, 2015, an increase over the $8.2 million NIH received in FY2014 and prior years from the transfer. P.L. 113-235 allocated the entire $715 million to the National Institute of General Medical Sciences (NIGMS), offsetting the more than $700 million reduction in discretionary budget authority for NIGMS in the law compared with its FY2014 funding level. By convention, budget tables such as **Table 1** do not subtract the amount of the evaluation tap from the donor agencies' appropriations.

recurring Expenses Fund (NEF).[10] Adding to this total the amounts for Superfund-related activities ($77 million) and the mandatory type 1 diabetes program ($150 million) would have brought the FY2017 NIH program level to $34.311 billion.

Funding for NIH in FY2017 has been provided through December 9, 2016, by the Continuing Appropriations Resolution, FY2017 (P.L. 114-223), and through April 28, 2017, by the FY2017 Further Continuing and Security Assistance Appropriations Act (CR, P.L. 114-254). In addition, Section 194 of the CR appropriated $352 million (available until expended) in the NIH Innovation account to carry out the four NIH Innovation Projects as described in Section 1001(b)(4) of the 21st Century Cures Act (P.L. 114-255).[11] The Cures Act created the NIH Innovation account and specified that funds in the account must be appropriated in order to be available for expenditure; the appropriation in Section 194 of the CR was necessary to fulfill this requirement. The four projects authorized by the Cures Act are the Precision Medicine Initiative ($40 million for FY2017), the BRAIN Initiative ($10 million for FY2017), cancer research ($300 million for FY2017), and regenerative medicine using adult stem cells ($2 million for FY2017). These amounts are not reflected in **Table 1** or **Figure 1**. The NIH Director may transfer these amounts from the NIH Innovation account to other NIH accounts but only for the purposes specified in the Cures Act. If the NIH Director determines that the funds for any of the four Innovation Projects are not necessary, the amounts may be transferred back to the NIH Innovation account. This transfer authority is in addition to other transfer authorities provided by law.

According to the budget blueprint, released on March 16, 2017, the Trump Administration is requesting $25.9 billion in discretionary funding for NIH in FY2018.[12] The blueprint states that this would be a reduction of $5.8 billion from the annualized funding levels provided under the FY2017 CR. It is not clear from the blueprint whether this total includes funding for the Cures Act. The FY2018 Trump budget blueprint states that it "includes a major reorganization of NIH's Institutes and Centers to help focus resources on the highest priority research and training activities." Further detail on the Administration's request, including any proposals for mandatory spending, is expected to be released later this year. Because the details needed to display comparable program level amounts for FY2018 are not yet available, the remainder of this report excludes FY2018 numbers.

The lower half of **Figure 1** portrays NIH funding adjusted for inflation (in constant 2015 dollars) using the Biomedical Research and Development Price Index (BRDPI).[13] It shows that the purchasing power of NIH funding (non-ARRA) peaked in FY2003 (the last year of the five-year

[10] The HHS Secretary is authorized to transfer to the NEF unobligated balances of certain expired discretionary funds. Under current law, NEF funds are available until expended for use by the HHS Secretary for capital acquisitions including facility and information technology infrastructure. Congressional appropriators must be notified in advance of any planned use of NEF funds. NEF funds have been used by HHS for expenses related to the Affordable Care Act, such as the federally facilitated exchanges. (See CRS Report R43066, *Federal Funding for Health Insurance Exchanges*.) The Senate Appropriations Committee-reported FY2017 Labor/HHS/ED appropriations bill included language that would have repurposed a portion of the NEF for NIH biomedical research activities. The House Appropriations Committee-reported FY2017 Labor/HHS/ED appropriations bill would have terminated the NEF and rescind unobligated balances.

[11] For further information, see CRS Report R44720, *The 21st Century Cures Act (Division A of P.L. 114-255)* and CRS Report R44723, *Overview of Further Continuing Appropriations for FY2017 (H.R. 2028)*.

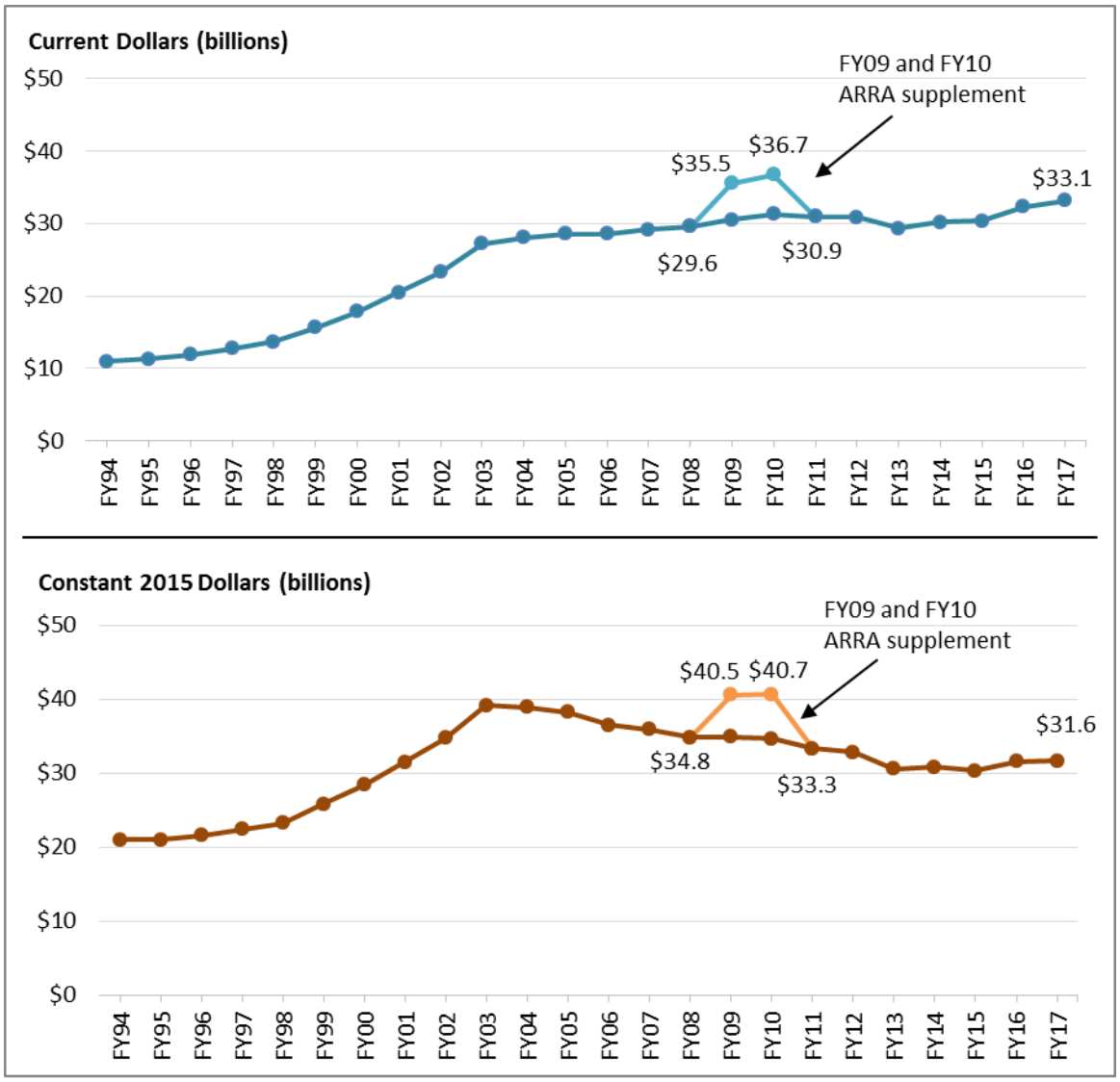
[12] *America First: A Budget Blueprint to Make America Great Again*, March 16, 2017, p. 28, https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/budget/fy2018/2018_blueprint.pdf.

[13] The index is developed for NIH by the Bureau of Economic Analysis of the Department of Commerce. It reflects the increase in prices of the resources needed to conduct biomedical research, including personnel services, supplies, and equipment. It indicates how much the NIH budget must change to maintain purchasing power. See "NIH Price Indexes," at http://officeofbudget.od.nih.gov/gbiPriceIndexes.html.

doubling period) and has steadily declined in the years since. In constant 2015 dollars, the FY2017 level funding is 19.2% less than the FY2003 level.

Figure 1. National Institutes of Health (NIH) Funding, FY1994-FY2017

Program Level Funding in Current and Constant (2015) Dollars



Sources: NIH Budget Office, Appropriations History by Institute/Center (1938 to Present), at http://officeofbudget.od.nih.gov/approp_hist.html. FY2015, FY2016, and FY2017 amounts are from Department of Health and Human Services, *Fiscal Year 2017 Budget in Brief*, Washington, DC, February 9, 2016, p. 51, http://www.hhs.gov/sites/default/files/fy2017-budget-in-brief.pdf. Inflation adjustment reflects the Biomedical Research and Development Price Index (BRDPI), updated January 2016, http://officeofbudget.od.nih.gov/gbiPriceIndexes.html.

Notes: FY2017 amount is the Obama Administration request. Program level includes all budget authority including appropriations for the Global Fund to Fight AIDS, TB, and Malaria (FY2002-FY2011) that were subject to transfer-out. As of FY2012, NIH no longer receives appropriations for the National Institute of Allergy and Infectious Diseases (NIAID) identifying resources for the Global Fund; this responsibility was transferred to another federal agency. Excludes other transferred amounts from HHS accounts, such as the PHS Act transfer (evaluation tap). ARRA supplementary funding is from the American Recovery and Reinvestment Act of 2009,

P.L. 111-5. FY2015 amount does not include $238,000,000 for the National Institute for Allergy and Infectious Diseases (NIAID) for research on Ebola that was provided in P.L. 113-235, Title VI of Division G.

Table 1. NIH Funding, FY1994–FY2017

Program Level Funding in Current and Constant (2015) Dollars (billions)

Fiscal Year	Program Level	% Change	Program Level Constant 2015 $	% below 2003
1994	$10.956		$21.038	
1995	11.300	3.1%	20.972	
1996	11.928	5.6%	21.585	
1997	12.741	6.8%	22.433	
1998	13.675	7.3%	23.288	
1999	15.629	14.3%	25.799	
2000	17.841	14.1%	28.391	
2001	20.459	14.7%	31.510	
2002	23.321	14.0%	34.768	
2003	27.167	16.5%	39.125	
2004	28.037	3.2%	38.927	-0.5%
2005	28.594	2.0%	38.215	-2.3%
2006	28.560	-0.1%	36.481	-6.8%
2007	29.179	2.2%	35.908	-8.2%
2008	29.607	1.5%	34.806	-11.0%
2009	30.545	3.2%	34.888	-10.8%
2010	31.238	2.3%	34.626	-11.5%
2011	30.916	-1.0%	33.316	-14.8%
2012	30.861	-0.2%	32.836	-16.1%
2013	29.316	-5.0%	30.619	-21.7%
2014	30.142	2.8%	30.816	-21.2%
2015	30.311	0.6%	30.311	-22.5%
2016	32.311	6.6%	31.583	-19.3%
2017 request	33.136	2.6%	31.626	-19.2%
NIH Funding including ARRA Supplement				
2009	35.499		40.546	
2010	36.684		40.663	

Source: NIH Budget Office, Appropriations History by Institute/Center (1938 to Present), at http://officeofbudget.od.nih.gov/approp_hist.html. FY2015, FY2016, and FY2017 amounts are from Department of Health and Human Services, *Fiscal Year 2017 Budget in Brief*, Washington, DC, February 9, 2016, p. 51, http://www.hhs.gov/sites/default/files/fy2017-budget-in-brief.pdf. Inflation adjustment reflects the Biomedical Research and Development Price Index (BRDPI), updated January 2016, http://officeofbudget.od.nih.gov/gbiPriceIndexes.html.

Notes: Amounts in table may differ from actuals in many cases. By convention, budget tables, such as **Table 1** do not subtract the amount of transfers from the agencies' funding. Program Level includes all budget authority, including appropriations for the Global Fund to Fight AIDS, TB, and Malaria (FY2002-FY2011) that were subject to transfer-out. As of FY2012, NIH no longer receives appropriations for the National Institute of Allergy and Infectious Diseases (NIAID) identifying resources for the Global Fund; this responsibility was transferred to another federal agency. ARRA supplementary funding is from the American Recovery and Reinvestment Act of 2009, P.L. 111-5. FY2015 amount does not include $238,000,000 for the National Institute for Allergy and Infectious Diseases (NIAID) for research on Ebola that was provided in P.L. 113-235, Title VI of Division G.

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