

The President's FY2018 Budget Request for the National Science Foundation

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The Trump Administration released the FY2018 Budget Request to Congress for the [National Science Foundation](#) (NSF) on May 23, 2017, proposing significant funding reductions across the agency's major research, education, and construction accounts. Overall, the request includes \$6.653 billion for NSF, \$819 million (11%) below the FY2017 enacted amount of \$7.472 billion ([P.L. 115-31](#)). If funded at the requested level, NSF appropriations would be the lowest since FY2002 in inflation-adjusted (constant) dollars ([Figure 1](#)). Ultimately, Congress will determine FY2018 appropriations levels and may incorporate elements of the President's request upon consideration of where, and to what extent, congressional priorities align with those of the Administration.

Research and Education

Under the FY2018 request, NSF's main research account, Research and Related Activities (RRA), would receive \$5.362 billion, a decrease of \$672 million (11.1%) from the FY2017 enacted amount ([Table 1](#)). Compared to FY2016 actual amounts, the request would reduce funding for each RRA subaccount except the [U.S. Arctic Research Commission](#) (no change). (FY2017 enacted funding was not specified for subaccounts, and the FY2018 request compares subaccount totals to FY2016 actual amounts because FY2017 estimated amounts were not available.) [Integrative Activities](#) would receive the largest percentage reduction (26%, \$110.8 million decrease), while the remaining subaccounts would receive reductions of between 7.1% and 10.6%.

NSF's main education account, Education and Human Resources (EHR), would receive \$760.6 million in FY2018, the largest percentage reduction (13.6%, \$119.4 million decrease) requested among NSF's major accounts compared to FY2017 enacted levels. Among EHR's four divisions, compared to FY2016 actual levels, the Division of Graduate Education (DGE) would receive the largest reduction (20.5%, \$56.9 million decrease). This includes requested decreases in DGE funding for the [CyberCorps: Scholarship for Service](#) program (20%, \$10 million decrease) and the [Graduate Research Fellowship Program](#) (25.9%, \$43 million decrease). The other divisions for undergraduate education, human resource development, and research on learning would receive reductions of 12%, 9.4%, and 11%, respectively.

Construction and Operations

The Major Research Equipment and Facilities Construction (MREFC) account supports major research infrastructure acquisition and construction. The FY2018 budget request would provide \$182.8 million for MREFC, a 12.5% (\$26.2 million) decrease from the FY2017 enacted amount. Proposed funding includes \$105 million to support two new Regional Class Research Vessels (RCRVs), requested prior to congressional direction for \$121.9 million to support three RCRVs (Division B Explanatory Statement accompanying [P.L. 115-31](#)). The budget request notes that the direction from Congress for three RCRVs will impact current and future funding requirements at unspecified amounts.

FY2018 requested funding levels for the other NSF major appropriations accounts are similar to the FY2017 enacted amounts. The request includes \$328.5 million for Agency Operations and Award Management (0.5%, \$1.5 million decrease), \$4.4 million for the National Science Board (no change), and \$15.0 million for the Office of the Inspector General (1.3%, \$200,000 decrease).

Potential Policy Impacts

In March 2017, the House Committee on Science, Space, and Technology, Subcommittee on Research and Technology held hearings to examine NSF policies and programs, focusing on oversight on March 9, and "future opportunities and challenges for science" on March 21. On June 7, 2017, the House Committee on Appropriations, Subcommittee on Commerce, Justice, Science, and Related Agencies held a budget hearing examining proposed NSF FY2018 funding.

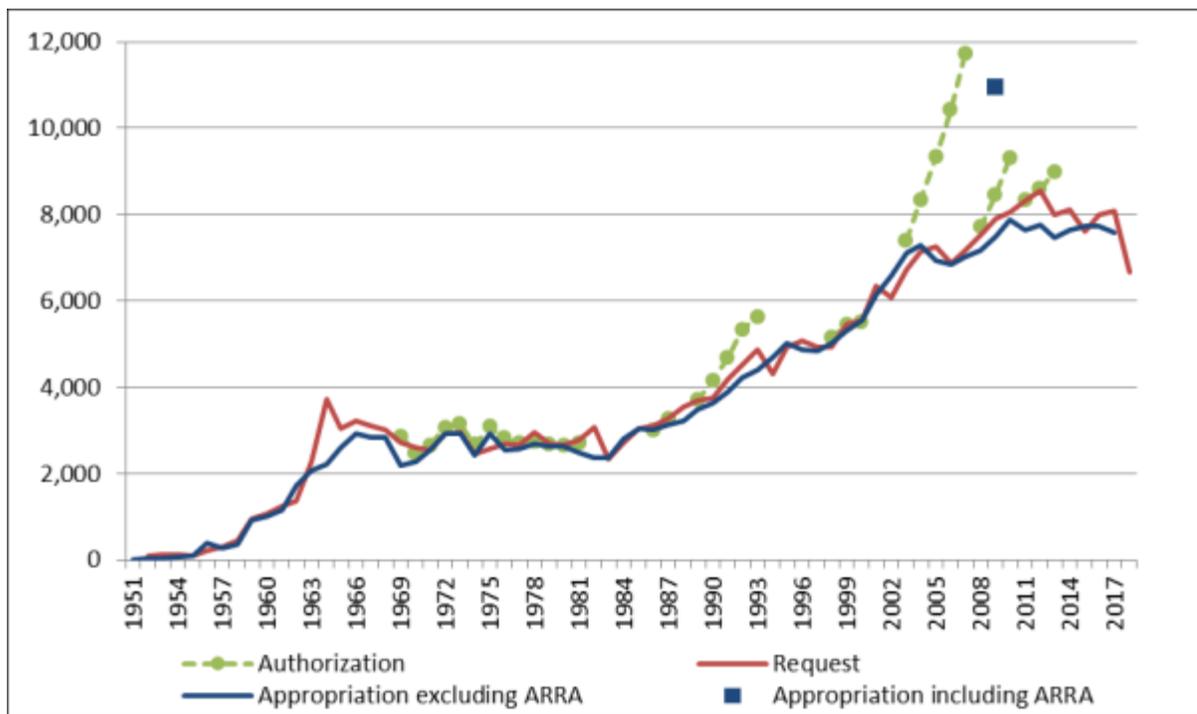
According to NSF's estimates, overall funding rates for research grant awards under FY2018 requested funding would decrease from 21% to 19%, compared to FY2016, resulting in 800 fewer grants awarded. Most of NSF's broadening participation and diversity programs would receive reduced funding. However, some programs would receive slight funding increases in FY2018, such as the Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science ([NSF INCLUDES](#)) program (6.5%, a \$1 million increase).

Two programs codified in the 2016 American Innovation and Competitiveness Act ([P.L. 114-329](#)) would receive reductions compared to FY2017 directed funding: the Established Program to Stimulate Competitive Research ([EPSCoR](#)) and Innovation Corps ([I-Corps](#)). The request includes \$100 million for EPSCoR (37.5%, \$60 million decrease) and \$26.1 million for I-Corps (12.1%, \$3.6 million decrease).

Adjusting for inflation, the request would reduce NSF's funding to levels last appropriated prior to the enactment of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act ([P.L. 110-69](#)). The COMPETES Act was enacted in 2007 in response to concerns about U.S. competitiveness in scientific and technological innovation, and included authorizations of increased appropriations for NSF. Congress may consider the long-term impacts to research, education and workforce development, and innovation under FY2018 requested funding levels weighed against concerns about the federal budget deficit and debt, and other budget priorities.

Figure 1. Constant Dollar NSF Authorizations, Budget Requests, and Appropriations:
FY1951–FY2018

(in millions of constant dollars (FY2018 estimated))



Source: Authorization funding data from selected FY1951 to FY2013 authorization acts. Request and appropriations funding data from the NSF Budget Internet Information System, "NSF Requests and Appropriations History," NSF.gov, June 13, 2016. To calculate constant dollars, CRS used the Gross Domestic Product (Chained) Price Index found in Office of Management and Budget, Historical Tables, "Table 10.1."

Notes: Appropriations funding data are as provided in annual appropriations acts plus adjustments including rescissions, funding transfers across accounts, supplemental appropriations (with American Recovery and Reinvestment Act, [P.L. 111-5](#), FY2009 funding noted separately).

Table 1. NSF Funding by Major Account

(in millions of dollars)

Account	FY2016 Actual	FY2017 Enacted	FY2018 Request	Change (FY2018 Request from FY2017 Enacted)	
				Dollars	Percentage
Research and Related Activities (RRA)	\$5,998.1	\$6,033.6	\$5,361.7	(\$672.0)	(11.1%)
Education and Human Resources (EHR)	884.1	880.0	760.6	(119.4)	(13.6)

Major Research Equipment and Facilities Construction (MREFC)	241.5	209.0	182.8	(26.2)	(12.5)
Agency Operations and Award Management (AOAM)	351.1	330.0	328.5	(1.5)	(0.5)
National Science Board (NSB)	4.3	4.4	4.4	0.0	0.0
Office of the Inspector General (OIG)	14.8	15.2	15.0	(0.2)	(1.3)
NSF, Total	\$7,493.9	\$7,472.2	\$6,652.9	(\$819.3)	(11.0%)

Source: CRS analysis of data from the NSF *FY2018 Budget Request to Congress*, and [P.L. 115-31](#).

Notes: Parentheses denote negative numbers. Totals may not add due to rounding. Appropriation dollars not adjusted for inflation.