



February 15, 2016

University of Wisconsin-Madison Office of Federal Relations Summary of President Obama's FY 2017 Budget Request

I. Summary

On February 9, the President released his final budget request to Congress, including a \$152.3 billion investment in R&D, a \$6.2 billion increase above FY 2016. Last October Congress passed the Bipartisan Budget Act of 2015, which increased funding caps for both FY 2016 and FY 2017. While the President's FY17 budget complies with discretionary budget caps set by the 2015 budget deal, proposed increases in FY 2017 for several research agencies including the National Institutes of Health (NIH) and the National Science Foundation (NSF) would be funded using mandatory, as well as discretionary spending. Mandatory spending accounts for \$4 billion of the aforementioned \$6.2 billion increase.

Federal R&D is typically included in the discretionary budget, the portion of the budget that Congress allocates every year through the appropriations process. Mandatory spending is not subject to the budget caps adopted last fall. However, these increases require new legislation to implement, they must be deficit-neutral and must be paid for through either revenue increases or spending cuts elsewhere in the budget. Most experts predict that Congress is not likely to approve the proposed mandatory spending increases.

This documents provides a high-level summary of some of the agencies and accounts that impact campus. Please contact our office should you have questions or would like additional information. Also, visit our website and follow us on Twitter @UWFedRelations for frequent budget updates.

II. Process

Since budget caps are already in place for FY 2017, we can expect the Appropriations Committees to begin holding hearings to examine the recommendations included in the President's budget very soon. We expect committee "mark-ups" to begin in mid to late March.

III. Agency Highlights and Summary

National Institutes of Health (NIH)

The total program funding level proposed for NIH in FY17 is \$33.1 billion, a \$825 million or 2.6 percent increase above FY 2016 levels. This includes \$31.3 billion in discretionary spending and \$1.8 billion in mandatory funding.

Proposed themes include:

- Foundation for Discoveries: Basic Research
- The Promise of Precision Medicine
- Applying Big Data and Technology to Improve Health
- Stewardship to Inspire Public Trust

The budget also provides an increase of \$755 million for the cancer "moon shot" effort being led by Vice President Joe Biden. The National Cancer Institute, which received a \$264 million boost from Congress in FY16, would receive \$680 million more in FY17.

The Administration dedicates \$300 million to the Precision Medicine Initiative (PMI) in FY 2017, \$100 million increase from FY 2016. The \$100 million increase will continue the ramp-up of the cohort toward one million or more volunteer participants. These funds will support several related activities: 1) informatics; 2) building a biorepository; 3) enrolling and consenting participants; 4) staffing; 5) genome analysis; and 6) core phenotyping.

In the proposal, NIH plans to spend \$195 million FY 2017, an increase of \$45 million over FY 2016, to expand the Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative.

Research Project Grants (RPGs) - NIH estimates it will devote \$18.2 billion to finance research project grants in FY 2017. This would fund 9,946 RPGs, a reduction of 7.5 percent.

Research Centers - NIH estimates support for Research Centers in FY 2017 at \$2.58 billion. This represents a \$55 million decrease compared with the FY2016 level of \$2.64 billion.

[Department of Health And Human Services \(HHS\) Budget Documents](#)

National Science Foundation (NSF)

The Administration is requesting \$7.96 billion for NSF, an increase of \$500.5 million. The request includes \$7.56 billion in discretionary funding and \$400 million in mandatory funding. The Administration says it is requesting the one-year mandatory funding to advance innovation and provide support for early career scientists and engineers.

For Research and Related Activities (R&RA), the FY17 request is \$6.425 billion, an increase of \$391.7 million, or 6.5 percent. The R&RA budget requests \$6.079 billion in discretionary funding and \$346 million in mandatory funding.

The Education and Human Resources (EHR) Directorate request is \$952.9 million, an increase of \$72.86 million, or 8.3 percent. The EHR budget request is \$898.9 in discretionary funding and \$54 million in mandatory funding.

For Major Research Equipment and Facilities Construction, the request is \$193.12 million, a cut of 3.6 percent from the FY16 level.

The FY17 NSF budget also requests funding for the following cross-government and cross-agency initiatives:

- Clean Energy Economy (\$512 million): to support research and education in renewable and alternative energy sources for electricity and fuels.
- Understanding the Brain (\$142 million): to enable scientific understanding of the full complexity of the brain in action and in context.
- Increase Resilience to Disasters (\$43 million): to improve predictability and risk assessment and increase resilience to extreme natural and man-made events.
- Sustaining the Food, Energy, and Water System (\$62 million): to understand, design, and model the interconnected food, energy, and water system through interdisciplinary research.
- Cutting-Edge Manufacturing (\$176 million): for advancing manufacturing.
- Commercialization of University Research (\$30 million): for NSF's public-private Innovation Corps (I-Corps) program to further build, utilize, and sustain a national innovation ecosystem.
- Capabilities and Infrastructure for Research and Education (\$139 million): \$33 million for the multi-agency National Strategic Computing Initiative (NSCI) to advance the Nation's computational infrastructure for research. Invests \$106 million in the construction of two Regional Class Research Vessels to meet anticipated ocean science requirements.

The FY17 budget includes funding for undergraduate and graduate education:

- Improving Undergraduate STEM Education (\$109 million): to accelerate the quality and effectiveness of undergraduate education in all STEM fields.
- NSF Research Traineeships (\$59 million): to identify priority research themes that align with NSF initiatives and have strong potential for the development and testing of innovative practices in graduation education.
- Graduate Research Fellowships (\$332 million): to support students with high potential in STEM research and innovation in pursuit of multidisciplinary research.

[National Science Foundation \(NSF\) Budget Documents](#)

Department of Energy (DOE)

The Administration is requesting \$5.672 billion for the DOE Office of Science in FY17, an increase of 6 percent above FY16 enacted levels. The proposal includes \$100 million in mandatory funding for University Grants, which will focus on research in Advanced Scientific Computing Research, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, High Energy Physics, and Nuclear Physics. As mentioned earlier, proposed mandatory spending increase will require Congressional approval.

Basic Energy Science (including continued support for Energy Frontier Research Centers (EFRCs)) would receive \$1.9 billion, \$87.7 million above FY 2016.

Biological and Environmental Research (BER) would receive \$661.9 million, \$52.9 million above FY 2016. The budget proposal includes continued funding for the Bioenergy Research Centers including the Great Lakes Bioenergy Research Center.

The Advanced Research Projects Agency-Energy (ARPA-E) would receive \$500 million, an increase of \$209 million, or 71.8 percent. This amount includes \$350 million in discretionary funding and \$150 million in mandatory funding.

Nuclear Energy would receive \$994 million, \$8 million above FY 2016 for ongoing research and development in advanced reactor and fuel cycle technologies.

Fossil Energy Research and Development would receive \$600 million, a decrease of \$32 million below FY 2016 levels.

The office of Energy Efficiency and Renewable Energy (EERE) would receive \$2.9 billion, an increase of \$829 million above FY 2016 to continue a diverse suite of sustained investment in sustainable transportation technologies (\$853 million), renewable energy generation technologies (\$621 million), and development of manufacturing technologies and enhanced energy efficiency in homes, buildings and industries (\$919 million). The request also includes \$215 million for new crosscutting innovation initiatives, including \$110 million for Regional Energy Innovation Partnerships, as well as an additional \$1.335 billion in mandatory funding to expand investments in low-carbon transportation technologies and fueling infrastructure.

As part of the United States' commitment to Mission Innovation, an agreement the United States and 19 other countries made to double clean energy R&D over five years, the U.S. government will seek to double the \$6.4 billion that Congress provided in FY 2016 for clean energy R&D to \$12.8 billion in FY 2021. The Administration is requesting the following funding for the Office of Science and ARPA-E under the Mission Innovation Initiative:

- Advanced Scientific Computing Research: \$10 million
- Basic Energy Sciences: \$51 million
- Biological and Environmental Research: \$35 million
- Fusion Energy Sciences Program: \$4 million

- ARPA-E: \$350 million

[Department of Energy \(DOE\) Budget Documents](#)

United States Department of Agriculture (USDA)

The President's budget includes a \$350 million increase for the Agriculture and Food Research Initiative (AFRI). This request includes mandatory spending and will bring the total for AFRI to \$700 million, or the amount that is authorized in the Farm Bill.

Other programs, including the Hatch and Smith-Lever accounts receive level funding as compared to FY 2016.

[United States Department of Agriculture Budget Documents](#)

Department of Defense (DoD)

DoD science and technology (S&T) is proposed for a FY 2017 spending level of \$12.5 billion, a reduction of \$749.6 million, or 5.7 percent, with the cuts spread across basic research, applied research, and advanced technology development.

Basic research (section 6.1) receives \$2.1 billion, a cut of \$207.6 million, or 9 percent; applied research (section 6.2) receives \$4.82 billion, a reduction of \$188 million, or 3.8 percent; and advanced technology development (section 6.3) receives \$5.58 billion, a cut of \$353.5 million, or 6 percent.

The Defense Advanced Research Projects Agency (DARPA) would receive \$2.97 billion, an increase of \$82.4 million, or about 2.8 percent.

[Department of Defense \(DoD\) Budget Documents](#)

National Aeronautics and Space Administration (NASA)

For FY17, the Administration is requesting \$19.03 billion for NASA, a cut of \$260 million, or 1.3 percent from the FY16 enacted level. Within the \$19 billion, \$763 million is mandatory funding and \$18.2 billion is discretionary funding.

NASA Science Mission Directorate (SMD) would be funded at \$5.6 billion, an increase of \$11 million over FY 2016 levels. Within SMD, the FY2017 Budget would provide:

- \$.03 billion for Earth Science, an increase of \$111 million over FY 2016
- \$152 billion for Planetary Science, a decrease of \$112 million from FY 2016
- \$782 million for Astrophysics, an increase of \$51 million

- \$569 million for the James Webb Space Telescope, a decrease of \$51 million
- \$699 million for Heliophysics, an increase of \$49 million over FY 2016

For Aeronautics, the President requests \$790.4 million, an increase of \$150 million above FY 2016 and \$827 million, an increase of \$140 million over FY 2016, for the Space Technology Directorate.

For Education, the FY17 budget includes \$24 million for Space Grant, \$25 million for Education and Public Outreach activities (funded in SMD-Astrophysics), and \$6 million for the GLOBE education program (funded in SMD-Earth Science).

[National Aeronautics and Space Administration \(NASA\) Budget Documents](#)

Department of Commerce

The Department of Commerce FY2017 budget request includes \$20 million for the Regional Innovation Strategies Program at the Economic Development Administration (EDA) to promote economic development planning and projects that spur entrepreneurship and innovation at the regional level.

[Department of Commerce Budget Documents](#)

National Institute of Standards and Technologies (NIST)

The President's request for NIST totals \$1 billion, a \$50.5 million increase above FY2016. \$826 million of the request is for research and development. The request provides a \$141 million for the Hollings Manufacturing Extension Partnership (MEP) and the Scientific and Technical Research Services accounts would receive a \$40.5 million or 5.9% increase, totaling \$730.5 million.

In addition, the budget supports the expansion of the National Network for Manufacturing Innovation (NNMI). The budget includes discretionary funding for five new institutes, including \$42 million to launch two new Commerce-led institutes and continue Commerce's first institute slated for launch later in FY 2016. The budget also includes a mandatory spending proposal of \$1.9 billion to complete 27 institutes and create a national network of 45 manufacturing institutes over the next ten years.

[National Institute of Standards and Technologies Budget Documents](#)

National Oceanic and Atmospheric Administration (NOAA)

The Administration proposes \$30 million increase for the Office of Oceanic and Atmospheric Research (OAR) for a total of \$519.8 million in FY2017.

[National Oceanic and Atmospheric Administration \(NOAA\) Budget Documents](#)

Department of Interior Geological Survey (USGS)

The USGS budget request is \$1.2 billion for FY 2017, an increase of \$106.8 million over FY 2016. The budget request includes \$6.5 million for the Water Resources Research Institutes and is level with FY2016 appropriated amounts.

The budget also includes funding for the Cooperative Research Units (CRU) program at \$18.2 million, an increase of \$750,000 over the FY2016 enacted level.

[United State Geological Survey Budget Documents](#)

Environmental Protection Agency (EPA)

The Environmental Protection Agency (EPA) Science and Technology (S&T) budget request is \$754 million for FY2017, an increase of approximately \$19.5 million above FY 2016.

[Environmental Protection Agency Budget Documents](#)

National Endowment for the Humanities (NEH)

The President's budget provides \$150 million for the NEH, a \$1.9 million increase over enacted FY2016 levels.

[National Endowment for the Humanities Budget Documents](#)

STEM (Science Technology Engineering and Mathematics)

The President's 2017 Budget invests \$4 billion in mandatory spending and more than \$3 billion in discretionary spending across the Federal Government on STEM education. Higher education programs include initiatives at the National Science Foundation, Department of Education, and Department of Energy for undergraduate and graduate students.

Highlights include:

www.federalrelations.wisc.edu

- \$4 billion in mandatory funding and \$100 million in discretionary funding for the Computer Science for All initiative, which has the goal of giving every student from preschool to high school the opportunity to learn hands-on computer science (CS). Additional investments to support course access and includes \$80 million for Next-Generation High Schools.
- Improving STEM teaching and supporting active learning with a \$125 million Teacher and Principals Pathways program to support teacher-preparation programs, \$10 million for a newly authorized STEM Master Teacher Corps program, and \$109 million from the National Science Foundation (NSF) to ensure that undergraduate students have the most effective learning experiences.
- Overcoming stereotypes and expanding opportunities for all students in STEM, including through a comprehensive NSF effort that will invest \$16 million to support alliances and backbone organizations dedicated to increasing diversity and successfully engaging traditionally underrepresented groups in STEM.

[STEM in the 2017 Budget: White House OSTP Fact Sheet](#)

United States Department of Education (ED): Student Aid and Higher Education

The budget request links Pell Grant maximums to inflation beyond 2017, when the current link to inflation expires. The budget would fully fund the Pell program in 2017 with a projected maximum award of \$5,935 with all the increases coming from mandatory spending. This represents a \$120 increase from FY2016 per award. The Administration proposes a restoration of year-round Pell eligibility, allowing use for a third semester during an academic year if the student has already completed a full-time load of 24 credits. The Administration also proposes an on-track Pell bonus of \$300 for students who take 15 credits per semester in an award year.

The budget proposes to reform campus-based aid program formulas for SEOG, Work-Study, and Perkins to allocate grants based on formulas that take into consideration enrollment and graduation of Pell students and successful employment and repayment outcomes. The budget would reform and expand the Perkins program into an unsubsidized loan program, which would provide \$8.5 billion annually.

The budget request consolidates REPAYE and other repayment plans into a single PAYE plan and also consolidates TEACH grants and the teacher loan forgiveness program into a single program. The Administration also proposes to simplify FAFSA by removing questions related to savings, investments, net worth, untaxed income and exclusions as well as makes adjustments to Expected Family Contribution.

The Administration is also requesting \$1.257 billion in mandatory funding for the President's proposed American's College Promise, which would make community college free for eligible students. The program would also allow enrollment at a four-year HBCU or MSI.

The President's request includes \$547.8 million in mandatory funding for a College Opportunity and Graduation Bonus program to reward institutions with successful outcomes in enrolling and graduating a significant number of low and moderate income students on time.

The Administration would flat fund the Federal TRIO programs at \$900 million, Federal Work Study at \$990 million, Supplemental Educational Opportunity Grants at \$733.1 million, GEAR UP at \$323 million and Graduate Assistance in Areas of National Need (GAANN) at \$29.3 million.

The Administration seeks a restoration of its First in the World program within the Fund for the Improvement of Postsecondary Education (FIPSE) at \$100 million. The competitive grants program was zeroed out in FY16 appropriations.

The International Education and Foreign Language Studies programs (Title VI) would be funded at \$67.3 million. This is a cut of 6.5 percent, or \$4.7 million from FY2016 levels. The proposed cuts for the Title VI programs will be to the overseas programs which the President is proposing to reduce from \$7.1 million in FY2016 to \$2.2 million in FY2017.

The Administration is also seeking \$694 million for Institute of Education Sciences (IES) programs, an increase of \$76 million over the FY2016 appropriated level.

[Department of Education Budget Documents](#)

United States Department of Treasury – Tax and other Policy Proposals

The President's budget would expand and modify the American Opportunity Tax Credit (AOTC), by improving the coordination between AOTC and Pell grants so that Pell does not count against students for eligibility for the refundable portion of the tax credit. The Administration would also increase AOTC refundability by \$500 to \$1500, extend availability from four years to five, and create a part-time AOTC credit for students attending less than half-time. The proposal would also eliminate the Lifetime Learning Credit and the Student Loan Interest Deduction.

The budget proposal would also eliminate the tax consequences of loan forgiveness under income-driven repayment options. Presently, borrowers under the Pay-As-You-Earn plan can have the remaining balance of their loans forgiven after 20 years of payments. However, the total sum forgiven is treated as taxable income.

The budget proposal would eliminate the tax deduction that allows donors to deduct 80 percent of contributions to colleges and universities that donors make in exchange for special rights to purchase seating at athletic events. Additionally, the proposal would reduce the value of charitable and other itemized deductions to 28 percent for taxpayers in the 33, 35, and 39.6 percent tax brackets.

The budget proposal would require any entity issuing a scholarship or grant in excess of \$500 that is not processed or administered by an institution of higher education to report such on a 1098-T.

The President's budget would also allow the Secretary of Treasury to disclose identifying information to the Department of Education in the case of late-stage delinquency of loans so that the Department of Education could inform borrowers about options to avoid default.