

Analysis of the FY 2017 Omnibus Appropriations Bill: Implications for Research, Higher Education, and Academic Medicine

Prepared by Lewis-Burke Associates LLC
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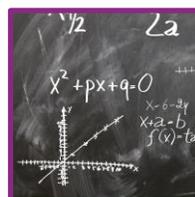


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Executive Summary

This week, the House and Senate Appropriations Committees concluded negotiations on an omnibus appropriations bill (H.R. 244) to fund federal government agencies for the remaining five months of fiscal year (FY) 2017. Despite the cuts proposed by the Trump Administration, the final bill would provide increases to federal investments in many of the research, education, and healthcare programs important to research universities and non-profit research institutions.

Next Steps: The House and Senate are expected to vote on and pass the bill over the next few days, and President Trump will then sign the bill into law by Friday, May 5, when the current continuing resolution expires. The delayed conclusion of the FY 2017 appropriations process seven months into the fiscal year was brought about by the Trump Administration's insistence on putting its stamp on federal spending. In the end, however, the Administration relented on its top priorities, such as money for a border wall and increased defense spending, to avoid a government shutdown.

Overview: The bill includes funding for 11 of 12 annual appropriations bills (the bill funding the Department of Veterans Affairs and military construction projects for FY 2017 passed in December) and upholds the overall discretionary \$1.07 trillion spending cap for FY 2017 agreed to in the *Bipartisan Budget Act of 2015* for both defense and non-defense spending. The bill also provides \$93.5 billion in Overseas Contingency Operations funding for global combat operations and improved military readiness and \$8.2 billion in disaster funding to address recovery efforts from fires, floods, and other extreme weather events. This funding is not subject to the spending caps and allows Congress to fund increases in defense and emergency disaster spending without making cuts to non-defense programs.

Even with only a \$3 billion increase in total discretionary funding for FY 2017 compared to FY 2016, many research and education agencies that enjoy bipartisan support would see increases in funding:

- The National Institutes of Health (NIH) would receive \$34 billion, an increase of \$2 billion, or 6.2 percent, above the FY 2016 enacted level.
- The Pell Grant program would be expanded to accommodate year-round funding for students while most other student aid investments would be flat funded.
- The Department of Energy (DOE) Office of Science would receive \$5.39 billion, an increase of \$42 million, or 0.7 percent, above the FY 2016 enacted level.
- The DOE Advanced Research Projects Agency-Energy (ARPA-E) would receive \$306 million, an increase of \$15 million, or 5.1 percent, above the FY 2016 enacted level.
- The National Science Foundation (NSF) would receive \$7.472 billion, an increase of \$9 million, or 0.1 percent, above the FY 2016 enacted level.
- The National Aeronautics and Space Administration (NASA) would receive \$19.7 billion, an increase of \$368 million, or 1.9 percent, above the FY 2016 enacted level, including an increase of \$176 million for science programs.
- While Department of Defense (DOD) basic research account would receive \$2.3 billion, or a 1.4 percent decrease over last year, applied research and advanced technology development would be increased by 5.4 percent and 8.4 percent respectively.
- The U.S. Department of Agriculture (USDA) National Institute of Food and Agriculture (NIFA) would receive \$1.36 billion, an increase of approximately 2.72 percent above the FY 2016

level. Within NIFA, the Agriculture and Food Research Initiative (AFRI) would receive \$375 million, an increase of \$25 million above the current enacted level.

- The Institute of Education Sciences within the Department of Education would be funded at \$605 million, a cut of 2.1 percent below the FY 2016 level.

This spending bill would provide certainty for federal agencies ahead of what is likely to be a protracted legislative process to decide FY 2018 funding priorities for the country. In contrast to the increases that would be provided under the FY 2017 omnibus, the FY 2018 Trump Administration budget blueprint released in March proposed cutting non-defense programs by \$54 billion to pay for \$54 billion in defense increases. These cuts include reductions to or eliminations of research and higher education priorities such as the National Institutes of Health, Department of Energy, National Endowment for the Humanities, environmental agencies, and federal student aid.

With this uncertainty ahead for FY 2018 funding and the potential for an extended continuing resolution, Congress has sought to provide strong FY 2017 funding with the omnibus bill to meet agency needs.

Details of the major federal research, education, and healthcare programs funded in the omnibus bill follow.

Department of Commerce

Economic Development Administration

The Economic Development Administration (EDA) would receive \$276 million for FY 2017, which is \$15 million above the FY 2016 enacted level. This proposal runs counter to the President's FY 2018 budget blueprint, which proposed eliminating the agency outright. Moreover, the omnibus agreement would provide \$11.5 million more than the proposed House appropriations bill and \$22 million more than the Senate mark. The bill would also provide support for assistance to drive economic revitalization in coal communities; many such programs had been slated to be eliminated by the Trump Administration in the budget blueprint.

The omnibus agreement would enhance funding for the Regional Innovation Program (RIP) by \$2 million over the FY 2016 enacted level. RIP is a popular initiative that has provided support for universities and research institutes to develop and scale-up commercialization centers through i6 Challenge grants and to cultivate funding campaigns for promising startups through Cluster Grants for Seed Capital Funds. RIP had been the subject of cuts in past appropriations bills, and this increase in funding is indicative of growing congressional support for the program over the years. Also of note, the explanatory statement would accept language from the Senate Committee report that directs EDA to prioritize cluster grants to support non-profit, equity-based seed capital funds.

Also of interest to the university community, the omnibus agreement would provide \$35 million for the Economic Adjustment Assistance (EAA) program, which is even with the FY 2016 enacted level. EAA awards provide support for the planning and implementation of regional economic development strategies. The bill would also designate \$100 million for the Public Works program, which provides funding for the construction of new infrastructure aimed at helping communities compete in the 21st Century global economy. This would also maintain funding at the enacted level. Both EAA and Public Works commonly support university-driven projects that demonstrate the capacity to stimulate regional economic development and competitiveness.

Economic Development Administration

(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
EDA, total	261,000	264,500	254,000	276,000	15,000 (6%)
Economic Development Assistance Programs	222,000	225,000	215,000	237,000	15,000 (7%)
Public Works	100,000	102,000	100,000	100,000	--
Economic Adjustment Assistance Program	35,000	38,000	36,500	35,000	--

Regional Innovation Program	15,000	16,000	20,000	17,000	2,000 (13%)
Partnership Planning	32,000	30,000	33,000	31,500	-500 (2%)
Technical Assistance Program	10,500	10,500	11,000	9,000	-1,500 (14%)
Research and Evaluation	1,500	1,500	1,500	1,500	--
Salaries and Expenses	39,000	39,500	39,000	39,000	--

Source: Division B, Commerce, Justice, Science, and Related Agencies Appropriations Act, 2017 <https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20B%20-%20CJS%20SOM%20OCR%20FY17.pdf>.

National Institute of Standards and Technology

The omnibus bill would provide \$954 million for the National Institute of Standards and Technology (NIST), which is \$10 million or 1 percent below FY 2016. However, this cut comes from the *Construction of Research Facilities* account, leaving *Scientific and Technical Research and Services* and *Industrial Technology Services* flat. The explanatory statement largely rejects the House Appropriations report language for FY 2017, and the omnibus would support programs as detailed below.

The bill would provide \$25 million, level with FY 2016, to support the **National Network for Manufacturing Innovation (NNMI)** (now **Manufacturing USA**). This would include support for the NIST institute and up to \$5 million for coordination activities across federal agencies. The bill would provide \$130 million for the **Hollings Manufacturing Extension Partnership (MEP)**, level with FY 2016 funding, and demonstrating continued Congressional support of this program. Consistent with the House report language, MEP is directed to submit a report to both chambers within 60 days of enactment “detailing the amount of funds to be maintained at headquarters and the uses of those funds.” Additionally, the House Committee wishes to be kept apprised of the re-competition of MEP centers.

Regarding NIST’s science programs, **forensics** research and standards, including the Forensics Science Advisory Committee would continue to be supported. The omnibus would provide a maximum of the FY 2016 level for **Lab to Market, Standards Coordination and Special Programs**, and no less than FY 2016 funding for **biomanufacturing activities** and the **Urban Dome program**. Per the Senate report, the Committee would continue to support NIST efforts in **disaster resilient buildings**; the bill would provide \$5 million to support external awards to academic research institutions in this area. Additionally, regarding **cybersecurity**, the Senate report would encourage NIST to fund a research program for universities to address global cybersecurity issues, considering *only* institutions of higher education designated by the National Security Agency as Centers of Academic Excellence for Information Assurance Education and Centers for Academic Excellence for Information Assurance Research.

National Institute of Standards and Technology

(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
NIST, total	964,000	865,000	974,000	954,000*	-10,000 (1%)
Industrial Technology Services	155,000	135,000	155,000	155,000*	--
Hollings Manufacturing Extension Partnership	130,000	130,000	130,000	130,000	--
National Network for Manufacturing Innovation (NNMI)	25,000	5,000	25,000	25,000	--
Scientific and Technical Research and Services	690,000	680,000	700,000	690,000	--

*\$2 million is offset for prior year recoveries, and thus does not represent newly appropriated funding, resulting in \$153 million in direct appropriations for Industrial Technology Centers and \$952 million in direct appropriations for NIST overall.

Source: Division B, Commerce, Justice, Science, and Related Agencies Appropriations Act 2017, <https://rules.house.gov/sites/repUBLICANS.rules.house.gov/files/115/OMNI/DIVISION%20B%20-%20CJS%20SOM%20OCR%20FY17.pdf>

National Oceanic and Atmospheric Administration

The omnibus would provide the National Oceanic and Atmospheric Administration (NOAA) with \$5.7 billion overall, \$5.5 million above the FY 2016 enacted level or a 0.1 percent increase. The bill would also maintain funding for the National Sea Grant Program and the Climate Program Office, despite the Trump Administration’s proposed cuts and eliminations for these programs in the FY 2018 budget blueprint.

The National Ocean Service (NOS) operations, research and facilities (ORF) account would receive \$517.4 million, a 3.5 percent increase from FY 2016 enacted levels. The omnibus would provide flat funding of \$27 million for the Hydrographic Survey Priorities/Contracts account, and incorporates Senate report language that directs the Agency to designate additional Joint Ocean and Coastal Mapping Centers at institutions of higher education, while maintaining funding for existing centers. The omnibus would provide a total of \$85 million for NOS Coastal Management Grants, \$10 million above the FY 2016 enacted level. This is consistent with the Senate measure and incorporates report language that proposes \$15 million for the Regional Coastal Resilience grants program.

The Oceanic and Atmospheric Research (OAR) ORF account would receive \$477.7 million, which is a 3.4 percent increase or \$15.8 million above the FY 2016 enacted level. Notably, the omnibus would provide the National Sea Grant Program a total of \$63 million and directs an additional \$10 million to be transferred from the National Marine Fisheries Service (NMFS) Red Snapper assessment account to maintain flat funding at roughly \$73 million compared to FY 2016 enacted level. However, the omnibus explicitly rejects the House bill’s proposed \$1 million in funding within Sea Grant for mariculture competitive awards. The Competitive Climate Research program would receive flat funding at \$60

million, consistent with the past two years. Report language from the Senate bill regarding Laboratories and Cooperative Institutes would be incorporated and would direct “the administration to fully fund cooperative institutes at appropriate levels in future years, including those currently supporting NOAA’s coastal resilience mission.” In addition, the report language acknowledges NOAA’s Cooperative Institutes in the 21st Century initiative (CI21) and directs the Agency to evaluate how additional CIs related to coastal resilience could support NOAA’s mission. The report language also instructs NOAA to provide guidance in its CI21 report “explaining how new research institutions can partner with NOAA scientists to expand the CI network in future years.”

The Ocean Exploration Research (OER) program would receive a \$4 million increase compared to FY 2016 enacted levels, for a total of \$36 million, consistent with the House bill. Report language from the House bill also would direct OER to use this funding for “competitive external awards to institutions that have partnered with the program in the past,” particularly those with Autonomous Underwater Vehicles (AUVs) and other assets.

The National Weather Service (NWS) ORF account would receive a slight decrease of 0.9 percent compared to FY 2016 enacted levels, for a total of \$979.78 million, which is also a decrease compared to both the House and Senate bills.

The National Environmental Satellite, Data, and Information Service (NESDIS) National Environmental Information Office would receive \$59.1 million total, which is flat compared to the FY 2016 enacted level of \$58.98 million. The omnibus incorporates both the House and Senate proposed \$3.65 million for Regional Climate Centers, which is flat funding compared to FY 2016 enacted levels.

The Office of Education would receive \$26.93 million, consistent with the Senate bill, which is 1.1 percent above the FY 2016 enacted level.

For NOAA Procurement, Acquisition, and Construction (PAC), the omnibus would provide an overall decrease of 6.0 percent below the FY 2016 enacted level, for a total of \$2.2 billion.

The omnibus would provide full funding as requested for the Joint Polar Satellite System (JPSS) and the Geostationary Operational Environmental Satellite-R (GOES-R). The bill would also provide \$328 million for the Polar Follow-On mission, substantially less than proposed in the Senate and House bills, \$383 million and \$370 million, respectively. The report prioritizes the Polar Follow-on over the Earth Observing Nanosatellite-Microwave (EON-MW). Space Weather Follow-on would receive \$5 million, a substantial increase compared to the FY 2016 enacted level of \$1.2 million.

Finally, the omnibus report would increase the amount proposed in the Senate bill for OAR Research Supercomputing by \$6 million, for a total of \$14 million to develop a high-performance supercomputing facility “in collaboration with partners with existing high performance computing expertise and scientific synergies.”

National Oceanic and Atmospheric Administration FY 2017

(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016	
NOAA, total	5,765,579	5,580,575	5,691,169	5,771,149	5,570	0.1%
Operations, Research, and Facilities (ORF)	3,305,813	3,445,664	3,339,376	3,515,539	209,726	6.3%
Oceanic and Atmospheric Research (OAR)	461,898	435,625	451,878	477,725	15,827	3.4%
<i>Competitive Climate Research</i>	60,000	40,000	60,000	60,000	0	0.0%
<i>National Sea Grant College Program*</i>	73,000	64,000	64,000	63,000	-10,000	-13.7%
<i>Ocean Exploration & Research</i>	32,000	36,000	20,000	36,000	4,000	12.5%
National Weather Service (NWS)	988,834	988,834	991,264	979,779	-9,055	-0.9%
National Ocean Service (NOS)	500,100	475,140	522,071	517,400	17,300	3.5%
<i>Coastal Science and Assessment: Competitive Research</i>	9,000	9,000	13,000	10,000	1,000	11.1%
<i>Ocean and Coastal Management and Services: Coastal Management Grants</i>	75,000	65,000	85,000	85,000	10,000	13.3%
National Marine Fisheries Service (NMFS)	849,497	860,835	854,831	851,543	2,046	0.2%
Procurement, Acquisition, and Construction (PAC)	2,400,416	2,230,635	2,286,853	2,255,610	-144,806	-6.0%
National Environmental Satellite, Data, and Information Service (NESDIS)	2,160,270	2,037,214	2,031,232	1,980,989	-179,281	-8.3%

Source: Division B, Commerce, Justice, Science and Related Agencies Appropriations Act 2017
<https://www.appropriations.senate.gov/imo/media/doc/FY2017%20Commerce,%20Justice%20Science%20Appropriations%20Bill%20Report%20114-239.pdf>.

Department of Defense

The FY 2017 Department of Defense (DOD) omnibus budget would provide \$72.3 billion for Research, Development, Test, and Evaluation (RDT&E) programs at DOD, including \$14.01 billion for Science and Technology (S&T) accounts. Compared to the FY 2016 enacted levels, these amounts would represent increases of 3.6 percent for RDT&E and 5.6 percent for S&T. Additionally, per the president's March 2017 supplemental request, which asked for an additional \$30 billion in defense funding, \$15 billion would be appropriated in Overseas Contingency Operations (OCO) funding to address urgent warfighting needs and begin to fulfill the president's campaign promise to rebuild the military. To adhere to the *Bipartisan Budget Act of 2015*, the supplemental funding of \$15 billion would be placed in the OCO account to maintain the spending cap for DOD. The additional funding would be used for efforts to defeat the Islamic State of Iraq and al Sham (ISIS), develop a strategy regarding Syria, as well as increased procurement of weapons systems, such as helicopters, missiles, ammunition, and missile defense systems.

The omnibus would provide DOD with a base budget of \$516.1 billion and an additional \$61.8 billion in OCO - \$2 billion and \$3.2 billion increases respectively. The increases are provided to Military Personnel, Operations and Maintenance, military salaries, and RDT&E. With the OCO and supplemental funding, procurement activities would be reduced in the base budget. The budget reflects both the Congress and President's concerns regarding force readiness, modernization, and overall size. With significant national security challenges emerging with North Korea, Syria and ISIS, the near-term intent of the budget is to provide the necessary tools and resources to U.S. warfighters.

With the increases to S&T, the budget reflects the Congress and President's desire to accelerate existing research and development efforts related to electronic warfare; next generation GPS; intelligence, surveillance and communication; aerospace vehicles; power projection; ocean warfighting; missile technology; ballistic missile defense; unmanned aircraft; warfighter protection; and cyber operations. Congress rejected President Obama's request to decrease funding for research and development for materials, combat vehicles, high performance computing, as well as Army and Navy aircraft. Cybersecurity operations would be increased by \$992 million above the FY 2016 enacted level. With increased concern for cybersecurity, Congress has instructed DOD in future budget requests to be more transparent and deliberate in proposed investments with delineation of specific operations as well as establishing new program elements for research, development, test and evaluation.

Of significance to the university and research community, the overall basic research funding level would be \$2.27 billion, which is a 1.4 percent reduction relative to the FY 2016 enacted level, but a 7.6 percent increase relative to President Obama's request. While Congress provided each of the Services, as well as the Office of the Secretary of Defense (OSD), with an additional \$131.5 million relative to President Obama's original request for basic research, the Navy's RDT&E and basic research accounts were reduced and the funds moved to Navy's procurement budget. In addition, OSD would receive a \$10 million increase for its primary STEM program, National Defense Education Program (NDEP), and an increase of \$10 million for Historically Black Colleges and Universities and minority-serving institutions, indicating Congress' continued concern for the DOD's future workforce pipelines.

The omnibus includes \$2.93 billion for the Defense Advanced Research Projects Agency (DARPA) to support high-risk, high-reward research. This level is approximately \$71 million above the FY 2016 level

with noted increases for basic research, electronics and space programs, and reductions in information and communication programs.

Additional items of interest include the Defense Rapid Innovation program that would be funded at \$250 million for the quick development of defense technologies, as well as Rapid Prototyping, which received \$100 million after President Obama proposed eliminating the program. Former Defense Secretary Carter's Defense Innovation Unit Experimental (DIUx) program would be decreased by \$20 million.

Beyond core defense science and technology programs, the Defense Health Program RDT&E account would be decreased by approximately 1 percent below the FY 2016 enacted level to remain essentially flat at \$2.1 billion. Since the early 1990s, Congress has increased the DOD health budget to support competitive health and biomedical research programs, offsetting restrictions on biomedical research funding through the National Institutes of Health (NIH). Of note, the omnibus agreement would provide \$60 million for the peer-reviewed cancer research program to research cancers not addressed in the breast, prostate, ovarian, kidney, and lung cancer research programs. The omnibus would also provide \$300 million for the peer-reviewed medical research program with new topics of arthritis; burn pit exposure; diarrheal diseases; early trauma thermal regulation; eating disorders; epidermolysis bullosa; Guillain-Barre syndrome; hepatitis B and C; immunomonitoring of intestinal transplants; musculoskeletal disorders; spinal muscular atrophy; and sustained-release drug delivery.

Department of Defense (In thousands of \$)

	FY 2016 Enacted	FY 2017 House*	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
DOD, RDTE	69,784,665	72,301,587	72,301,587	2,516,922 (3.6%)
DOD S&T, Total	13,272,806	14,011,229	14,011,229	738,423 (5.6%)
6.1, Total	2,309,429	2,276,332	2,276,332	-33,097 (1.4%)
6.2, Total	5,023,982	5,296,175	5,296,175	272,193 (5.4%)
6.3, Total	5,939,395	6,438,722	6,438,722	499,327 (8.4%)
Army RDTE	7,565,327	8,332,965	8,332,965	767,638 (10.1%)
Army S&T	2,689,311	3,067,282	3,067,282	377,971 (14.1%)
Army 6.1	469,079	486,943	486,943	17,864 (3.8%)
Army 6.2	1,092,885	1,220,274	1,220,274	127,389 (11.7%)
Army 6.3	1,127,347	1,360,065	1,360,065	232,718 (20.6%)
Navy RDTE	18,117,677	17,214,530	17,214,530	-903,147 (5.0%)
Navy S&T	2,357,400	2,367,184	2,367,184	9,784 (0.4%)
Navy 6.1	671,928	562,970	562,970	-108,958 (16.2%)
Navy 6.2	986,577	980,326	980,326	-6,251 (0.6%)
Navy 6.3	698,895	823,888	823,888	124,993 (17.9%)
Air Force RDTE	25,217,148	27,788,548	27,788,548	2,571,400 (10.2%)
Air Force S&T	2,483,480	2,678,381	2,678,381	194,901 (7.8%)
Air Force 6.1	530,253	545,024	545,024	14,771 (2.8%)
Air Force 6.2	1,241,942	1,325,652	1,325,652	83,710 (6.7%)

Air Force 6.3	711,285	807,705	807,705	96,420 (13.6%)
Defense Wide RDTE	18,695,955	18,778,550	18,778,550	82,595 (0.4%)
Defense Wide S&T	5,742,615	5,898,382	5,898,382	155,767 (2.7%)
Defense Wide 6.1	638,169	681,395	681,395	43,226 (6.8%)
Defense Wide 6.2	1,702,578	1,769,923	1,769,923	67,345 (4.0%)
Defense Wide 6.3	3,401,868	3,447,064	3,447,064	45,196 (1.3%)
Defense Health Research and Development	2,121,933	2,102,107	2,102,107	-19,826 (0.9%)

*A FY 2017 Senate column is not included, as the Senate was using the House Appropriations bill, passed on March 8, 2017, and a corresponding Senate bill was not released.

Sources: Division C, Department of Defense Appropriations Act of 2017

<https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20C%20-%20DEFENSE%20SOM%20%20OCR%20FY17.pdf>; FY 2017 House figures taken from the explanatory statement http://appropriations.house.gov/uploadedfiles/03.02.17_defense_-_fy_2017_appropriations_bill_-_explanatory_statement.pdf.

Department of Education

The omnibus appropriations bill would fund the Department of Education (ED) at \$71.6 billion which is \$60.8 million below the FY 2016 enacted level. Unsurprisingly, the final bill would not fund many of President Obama’s proposed signature programs. However, many of the concerns raised by the higher education community following the release of President Trump’s skinny budget for FY 2018 were not realized in the final bill. Most programs of interest to the higher education community would be flat-funded, including Federal Work Study and Supplemental Education Opportunity Grants (SEOG). There were a few exceptions, however. The bill would reduce funding below current levels for the Institute of Education Sciences (IES). A few programs, such as TRIO and GEAR UP, would receive funding increases.

In the most dramatic change to the Pell Grant program in several years, the bill would allow the Department to award a Pell Grant for an additional term during the academic year, often referred to as “summer Pell” or “year-round Pell,” which would allow students to use the Pell Grant for continuous enrollment throughout the year. Students, who would need to be enrolled at least half-time, could be eligible for the additional term of Pell Grant funding beginning with the 2017-2018 school year and would be able to receive a total of up to 150 percent of the maximum Pell Grant award. The bill requests that the Department of Education release guidance related to this reinstatement by July 1, 2017. The final bill would provide a total maximum individual Pell Grant award of \$5,920 for the 2017-2018 academic year. The omnibus bill would also rescind \$1.31 billion from the current Pell surplus for other use.

IES would receive \$605.3 million, a reduction of approximately \$12.7 million below the current level. Specifically, this proposed reduction would be primarily from Research, Development, and Dissemination, Statistics, and Statewide Data Systems. Within IES, the National Center for Special Education Research would be flat-funded.

The bill directs the Department to permit borrowers to choose from all federal student loan servicers when consolidating loans. State authorization, gainful employment and the credit hour definition are not mentioned in the bill.

Department of Education

(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
ED, Total*	71,698,533	70,398,563	71,235,500	71,637,749	-60,784 (0.1%)
Elementary and Secondary Education					
Title I Funding/Grants to LEAs	14,909,802	15,359,802	15,409,802	15,459,802	550,000 (3.7%)
Promise Neighborhoods	73,254	73,254	73,254	73,254	--

Innovation and Improvement[†]					
Education Innovation and Research	120,000	0	120,000	100,000	-20,000 (16.7%)
Student Financial Assistance[†]					
Pell Grant [‡]	5,815	5,935	5,935	5,920	105 (1.8%)
Perkins Loan Program	0	0	0	0	--
SEOG	733,130	733,130	733,130	733,130	--
Federal Work-Study	989,728	989,728	989,728	989,728	--
Higher Education[†]					
Title V Aid for Developing HSIs	107,795	107,795	107,795	107,795	--
Promoting Post-Baccalaureate Opportunities for Hispanic Americans	9,671	9,671	9,671	9,671	--
Title VI International Education and Foreign Language Studies	72,164	72,164	67,271	72,164	--
FIPSE – First in the World	0	0	0	0	--
TRIO Programs	900,000	960,000	900,000	950,000	50,000 (5.6%)
GEAR UP	322,754	344,754	322,754	339,754	17,000 (5.3%)
GAANN	29,293	0	29,293	28,047	-1,246 (4.3%)
Teacher and Principal Pathways	N/A	0	0	0	
Institute of Education Sciences	618,015	536,049	612,525	605,267	-12,748 (2.1%)
Research, Development and Dissemination	195,000	154,473	190,000	187,500	-7,500 (3.8%)
Research in Special Education	54,000	49,300	54,000	54,000	--
Regional Education Laboratories	54,423	54,423	54,423	54,423	--

Statewide Longitudinal Data Systems	34,539	27,230	34,539	32,281	-2,258 (6.5%)
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*Unless otherwise noted, all funding in chart is discretionary.

†Categories included for ease of reading the chart.

‡The Pell Grant is listed as the total maximum grant award an individual could receive, including mandatory and discretionary funding. It is *not* listed in thousands of dollars.

Source: Division H, Department of Labor, Health and Human Services, and Education, and Related Agencies, 2017

<https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20H-%20LABORHHS%20SOM%20OCR%20FY17.pdf>.

Department of Energy

The final omnibus appropriations bill would provide \$30.8 billion for the Department of Energy (DOE), which is \$1.029 billion (3.4 percent) above the FY 2016 enacted level. The bill would provide an increase of \$175 million (1.1 percent) above the FY 2016 enacted level to boost funding for all DOE research programs, including Office of Science, the Advanced Research Projects Agency-Energy (ARPA-E), and applied energy research in renewables, energy efficiency, fossil, nuclear, and grid modernization and resiliency efforts. The bill would also provide an increase of \$412 million (3.2 percent) for the National Nuclear Security Administration to modernize aging nuclear weapons and associated infrastructure; support science and engineering efforts to maintain a safe, secure, and effective nuclear deterrent; and develop new technologies to detect nuclear proliferation. Increases in funding for Department of Energy basic and applied energy research programs are in sharp contrast to the \$3.1 billion (18 percent) in proposed cuts in the FY 2018 Trump Administration budget blueprint.

Office of Science and ARPA-E

The DOE Office of Science would receive \$5.39 billion, an increase of \$42 million (0.8 percent) compared to FY 2016. In addition, ARPA-E would see a slight increase of \$15 million (5.1 percent) compared to FY 2016 for a total of \$306 million. Of particular note, the bill would fully fund the exascale computing cross-cutting initiative, which includes \$200 million under the Office of Science and \$95 million from NNSA. This would be an increase of \$42 million above FY 2016 and \$10 million above the FY 2017 President's budget request.

Five of the six Office of Science program areas would see an increase above FY 2016. While the sixth area, Fusion Energy Sciences, would be below FY 2016 funding levels, domestic fusion research would see an increase above last year. The bill also includes \$2 million to fund for the first time a Distinguished Scientist Program, a priority for Senator Lamar Alexander (R-TN) that was originally authorized in the *American Competes Act of 2007* and allows an exchange of scientists for up to six years between institutions of higher education and the DOE national laboratories.

The largest funding increase is for High Energy Physics, which would receive \$825 million, an increase of \$30 million (3.8 percent) over FY 2016 and \$7 million above the FY 2017 request level. Additional funding would be provided to advance major neutrino and dark energy and matter construction projects and experiments.

Basic Energy Sciences would receive \$1.871 billion or \$22 million (1.2 percent) above FY 2016. This funding amount includes \$24 million and \$15 million for the Batteries and Energy Storage and Fuels from Sunlight Innovation Hubs, respectively. There is no funding specified for Energy Frontier Research Centers (EFRCs), but with a \$32 million increase above FY 2016 for research funding, BES should be able to continue funding all 36 EFRCs. No additional funding was included for new EFRCs as proposed in the budget request. The bill would also include two congressional adds that were not part of the budget request: \$5 million for research and development to upgrade the Advanced Light Source at Lawrence Berkeley National Lab in California and \$3 million for a university competitive solicitation to develop nanostructured catalysts that can be used to synthesize fertilizer and ammonia without any secondary greenhouse gases.

Advanced Scientific Computing Research would be funded at \$647 million, which is an increase of \$26 million or 4.2 percent over FY 2016. The increase is primarily to support the exascale computing project (\$164 million, \$10 million above the request) and facility upgrades at the national lab leadership computing facilities. The bill also includes \$10 million for the Computational Sciences Graduate Fellowship program, the same as the FY 2016 level, and up to \$20 million to support efforts that reduce the energy cost of data movement between memory and storage.

The Biological and Environmental Research program would receive \$612 million, \$3 million or 0.5 percent above the FY 2016 level. The bill specifies \$75 million to continue funding the three existing Bioenergy Research Centers, but falls short of the \$89 million requested in the FY 2017 budget. The bill also increases funding for climate change research. The bill would provide \$10 million as part of the exascale initiative to develop next-generation climate models that better predict the impact of climate change at regional and local levels and help decision-makers better prepare for extreme weather events, changes in water availability, and decreased crop yields and other potential challenges.

Fusion Energy Sciences would receive \$380 million, a decrease of \$58 million, or 13.2 percent, compared to FY 2016. The decrease in funding is due to dwindling support for the ITER international fusion project. The bill would only provide \$50 million for ITER, which is \$65 million below FY 2016 and \$75 million below the FY 2017 budget request level. This sets the stage for a likely formal withdrawal from the project next year. While the bill would provide the Secretary of Energy discretion to increase funding for ITER by an additional \$50 million, that would be a significant challenge in a tight budget environment. The domestic research program would see an increase of \$7 million for a total of \$330 million and the bill would require the fusion program to develop a long-range strategic plan for the program's future.

Nuclear Physics would receive \$622 million, providing \$5 million, or .8 percent, above FY 2016. This would primarily fund the operations of the newly upgraded Continuous Electron Beam Accelerator Facility at Thomas Jefferson Lab in Virginia and the construction of the Facility for Rare Isotope Beams at Michigan State University.

Applied Energy Programs

All of DOE's applied energy programs would receive an increase above FY 2016, which is a sharp contrast to the \$2 billion in cuts proposed in the Trump Administration's FY 2018 budget blueprint. The Office of Energy Efficiency and Renewable Energy (EERE) would receive \$2.09 billion, an increase of \$17 million (0.8 percent) above FY 2016. A major new initiative that the final bill would fund is a Desalination Hub with \$20 million available for the first year of funding. The bill would also provide \$84 million to support the six existing Clean Energy Manufacturing Innovation Institutes and the establishment of a new Institute; \$25 million for the Critical Materials Hub; and \$1.5 million for a joint additive manufacturing pilot institute with the Department of Defense. Research and development funding overall for renewable energy programs would be cut below FY 2016 levels, including in bioenergy, solar, wind, and geothermal. The bill also does not provide funding for Regional Clean Energy Innovation Partnerships.

Consistent with an all-of-the-above energy strategy, the bill also provides increases to nuclear and fossil energy programs. The nuclear energy program would be funded at \$1.017 billion, an increase of \$31 million (3.1 percent) over FY 2016. The funding increase is primarily to support small modular reactor licensing support for NuScale as well as \$5 million to continue the integrated university program. The

fossil energy program would receive \$668 million, an increase of \$36 million, or 5.7 percent, above FY 2016. The additional funding would support the competitive award of two large-scale pilots to demonstrate coal-based carbon capture and sequestration technologies.

With increased attention on electric grid reliability and security issues, the bill would also provide an increase of \$24 million (11.6 percent) for a total of \$230 million to the Office of Electricity and Energy Reliability for grid modernization activities. The two largest increases are for regional demonstrations of on-site generation and micro grids and energy storage technology development efforts.

Nuclear Security Programs

The omnibus bill would provide \$12.938 billion for NNSA, an increase of \$412 million (3.3 percent) above FY 2016. Within NNSA, the omnibus includes \$9.245 billion, an increase of \$399 million (4.5 percent) compared to FY 2016, for nuclear weapons programs. The four core research, development, testing, and evaluation programs within nuclear weapons programs would receive an increase of \$67 million above FY 2016 levels, including a \$12 million increase for the inertial confinement fusion program and a \$31 million increase for the exascale computing initiative. The academic alliance and partnership program would continue to be funded at the FY 2016 level of \$50 million as well as \$12 million for additive manufacturing activities in support of national security.

The core nonproliferation program would receive \$1.67 billion, a decrease of \$58 million (3.3 percent) below FY 2016. The decrease in funding is primarily due to reduced reactor conversion and other nonproliferation activities with Russia. While the overall program would be cut, the bill would provide an increase for nonproliferation research and development to develop high-density, low enriched uranium fuel for naval and other research reactors to move away from the use of highly enriched uranium.

Department of Energy

(In Thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
DOE, total	29,717,278	29,962,889	30,741,296	30,746,009	1,028,731 (3.46%)
Science	5,350,200	5,400,000	5,400,000	5,392,000	41,800 (0.78%)
Advanced Scientific Computing Research	621,000	621,000	656,180	647,000	26,000 (4.19%)
Basic Energy Sciences	1,849,000	1,859,792	1,912,630	1,871,000	22,000 (1.19%)
Biological and Environmental Research	609,000	595,000	637,000	612,000	3,000 (0.49%)
Fusion Energy Sciences	438,000	450,000	280,110	380,000	-58,000 (-13.24%)

High Energy Physics	795,000	823,009	832,997	825,000	30,000 (3.77%)
Nuclear Physics	617,100	620,000	635,658	622,000	4,900 (0.79%)
Workforce Development for Teachers and Scientists	19,500	20,925	20,925	19,500	--
Science Laboratories Infrastructure	113,600	122,397	130,000	130,000	16,400 (14.44%)
ARPA-E	291,000	305,889	292,669	306,000	15,000 (5.15%)
EERE	2,073,000	1,825,000	2,073,000	2,090,200	17,200 (0.83%)
Hydrogen and Fuel Cell Technologies	100,950	97,000	92,000	101,000	50 (0.05%)
Bioenergy Technologies	225,000	168,500	218,100	205,000	-20,000 (-8.89%)
Solar Energy Technologies	241,600	197,000	222,400	207,600	-34,000 (-14.07%)
Wind Energy Technologies	95,450	90,000	80,000	90,000	-5,450 (-5.71%)
Geothermal Technologies	71,000	56,000	70,500	69,500	-1,500 (-2.11%)
Water Power Technologies	70,000	55,000	84,000	84,000	14,000 (20%)
Vehicle Technologies	310,000	268,000	308,300	306,959	-3,041 (-0.98%)
Building Technologies	200,500	143,000	203,400	199,141	-1,359 (-0.68%)
Advanced Manufacturing Technologies	228,500	214,000	254,200	257,600	29,100 (12.74%)
Electricity Delivery and Energy Reliability	206,000	225,000	206,000	230,000	24,000 (11.65%)
Nuclear Energy	986,161	1,011,616	1,057,903	1,016,616	30,455 (3.29%)
Fossil Energy R&D	632,000	645,000	632,000	668,000	36,000 (5.7%)
National Nuclear Security Administration	12,526,512	12,853,570	12,867,186	12,938,252	411,740 (3.29%)
Weapons Activities	8,846,948	9,243,147	9,285,147	9,245,567	398,619 (4.51%)
Defense Nuclear Non-proliferation	1,940,302	1,807,916	1,821,916	1,882,872	-57,430 (-2.96%)

Source: Division D, Energy and Water Development and Related Agencies Appropriations Act, 2017
available at

<https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20D%20-%20E%26W%20SOM%20FY17OCR.pdf>.

Department of Health and Human Services

National Institutes of Health

The omnibus would provide \$34.084 billion for the National Institutes of Health (NIH) in FY 2017, a \$2 billion (6.2 percent) increase above FY 2016. This is the second consecutive \$2 billion increase for NIH and asserts Congress' continued strong bipartisan support for the agency, which is particularly gratifying to the biomedical research community given the drastic cuts proposed in the president's FY 2018 budget blueprint.

The FY 2017 continuing resolution (CR) passed in December 2016 provided \$504 million for NIH, which would be included within the omnibus bill. This amount includes \$152 million to the National Institute of Allergy and Infectious Diseases (NIAID), for Zika research activities. In addition, the CR included the \$352 million from the *21st Century Cures Act* for specific initiatives. Specifically, the CR provided \$300 million for the Cancer Moonshot; \$40 million for the Precision Medicine Initiative cohort (recently renamed the *All of Us* Research Program); \$10 million for the BRAIN Initiative; and \$2 million for regenerative medicine research.

In addition to the funding previously provided in the FY 2017 CR, the omnibus would add another \$110 million to the BRAIN Initiative and another \$120 million for the Precision Medicine Initiative. The omnibus also would provide \$463 million for antimicrobial resistance research, which would be an increase of \$50 million. The omnibus would designate \$1.4 billion for Alzheimer's disease research at the National Institute on Aging (NIA), which would be a \$400 million increase above last year. Of note, the omnibus would retain the extramural salary cap at Executive Level II.

The omnibus would provide \$333.4 million for the Institutional Development Award (IDeA) program, an increase of \$13.2 million above last year. The omnibus also would increase funding for the Clinical and Translational Science Awards (CTSA) by \$16.1 million, bringing that program to \$516.1 million. The CTSA program is within the National Center for Advancing Translational Sciences (NCATS), as is the Cures Acceleration Network, which would receive \$25.8 million in the omnibus. Also included is \$165 million for the Environmental influences on Child Health Outcomes (ECHO) program, which is the follow-on to the National Children's Study.

National Institutes of Health

(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
NIH total	32,084,000	33,334,000	32,927,000	34,084,000	2,000,000 (6.2%)
National Cancer Institute (NCI)	5,214,701	5,338,444	5,429,769	5,389,329	174,628 (3.3%)
National Heart, Lung, and Blood Institute (NHLBI)	3,115,538	3,190,474	3,242,685	3,206,589	91,051 (2.9%)

National Institute of Dental and Craniofacial Research (NIDCR)	415,582	425,578	430,544	425,751	10,169 (2.4%)
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)	1,818,357	1,862,093	1,891,652	1,870,595	52,238 (2.9%)
National Institute of Neurological Disorders and Stroke (NINDS)	1,696,139	1,751,049	1,803,306	1,783,654	87,515 (5.2%)
National Institute of Allergy and Infectious Diseases (NIAID)	4,629,928	4,738,883	4,961,305	4,906,638	276,710 (6.0%)
National Institute of General Medical Sciences (NIGMS)	1,732,073	1,792,253	1,776,755	1,826,395	94,322 (5.4%)
Institutional Development Award (IDeA)	320,084	333,340	333,361	333,361	13,277 (4.1%)
Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)	1,339,802	1,373,408	1,395,811	1,380,295	40,493 (3.0%)
National Eye Institute (NEI)	715,903	735,576	740,826	732,618	16,715 (2.3%)
National Institute of Environmental Health Sciences (NIEHS)	693,702	710,387	722,301	714,261	20,559 (3.0%)
National Institute on Aging (NIA)	1,600,191	1,982,102	2,067,138	2,048,610	448,419 (28.0%)
National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)	542,141	555,181	564,131	557,851	15,710 (2.9%)
National Institute on Deafness and Other Communications Disorders (NIDCD)	423,031	434,126	441,778	436,875	13,844 (3.3%)
National Institute of Mental Health (NIMH)	1,548,390	1,599,747	1,619,537	1,601,931	53,541 (3.5%)
National Institute on Drug Abuse (NIDA)	1,077,488	1,107,700	1,103,032	1,090,853	13,365 (1.2%)
National Institute on Alcohol Abuse and Alcoholism (NIAAA)	467,700	480,330	488,782	483,363	15,663 (3.3%)
National Institute of Nursing Research (NINR)	146,485	150,008	151,965	150,273	3,788 (2.6%)
National Human Genome Research Institute (NHGRI)	518,956	531,438	534,516	528,566	9,610 (1.9%)
National Institute of Biomedical Imaging and Bioengineering (NIBIB)	346,795	356,978	361,062	357,080	10,285 (3.0%)

National Institute on Minority Health and Health Disparities (NIMHD)	279,718	286,446	292,323	289,069	9,351 (3.3%)
National Center for Complementary and Integrative Health (NCCIH)	130,789	134,549	136,195	134,689	3,900 (3.0%)
National Center for Advancing Translational Sciences (NCATS)	685,417	712,795	713,849	705,903	20,486 (3.0%)
John E. Fogarty International Center (FIC)	70,447	72,141	73,026	72,213	1,766 (2.5%)
National Library of Medicine (NLM)	394,664	403,086	412,097	407,510	12,846 (3.3%)
Office of the Director (OD)	1,558,600	1,676,167	1,443,752	1,665,183	106,583 (6.8%)
Common Fund	663,039	763,039	790,542	682,856	19,817 (3.0%)
Building and Facilities	128,863	128,863	128,863	128,863	--

Source: Division H, Departments of Labor, Health and Human Services, and Education, and Related Agencies, Appropriations Act, 2017

<https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20H-%20LABORHHS%20SOM%20OCR%20FY17.pdf>

Food and Drug Administration

The Food and Drug Administration (FDA) would receive \$2.76 billion in discretionary funding; this represents an increase of \$39 million (1.4 percent) over the FY 2016 enacted level. The increase would require the FDA to provide \$10 million for the prevention of, preparation for, and response to emerging public health threats such as the Zika and Ebola viruses. The omnibus would also include an additional \$2.5 million to support the Precision Medicine Initiative (PMI). Total funding for the FDA, including user fees, would be \$4.7 billion, a decrease of \$26 million (.6 percent) compared to the FY 2016 enacted level.

In a similar manner to the final appropriations bill for FY 2016, the omnibus includes a policy provision requiring the FDA to refrain from reviewing any applications for tools related to editing the DNA of human embryos. While the NIH prohibits the federal funding of research with that goal, this provision would continue to suppress the review of applications of this research funded through the private sector as well.

Food and Drug Administration

(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
FDA, Total	4,681,392	4,778,875	4,784,998	4,655,089	26,303 (0.6%)
FDA, Discretionary	2,720,808	2,765,643	2,771,766	2,759,378	38,570 (1.4%)

Source: Division A, Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017

<https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20A-%20AG%20SOM%20OCR%20FY17.pdf>

Other HHS Agencies

The Department of Health and Human Services (HHS) fares well in the omnibus bill compared to the President Trump's budget blueprint, which proposed steeper cuts to programs within HHS. However, the Agency for Healthcare Research and Quality (AHRQ) faces a \$10 million reduction (or 3.0 percent) below the FY 2016 enacted level. Despite this reduction in funding, AHRQ would not be moved into NIH, as proposed in the President's budget blueprint. Instead, the omnibus would allocate \$324 million to the agency, including approximately \$70 million for patient safety research, \$46 million for investigator-initiated research, and \$16.5 million for health information technology (IT).

The omnibus would provide a total of \$7.3 billion for the Centers for Disease Control and Prevention (CDC), which would be a \$22 million (0.3 percent) increase over last year's funding level. This total would include \$891 million in transfers from the Affordable Care Act's (ACA) Prevention and Public Health Fund and \$35 million in emergency funding for Flint, Michigan. The omnibus would also continue to provide funding to support preparedness and response activities related to public health emergencies, including bioterrorism. Within the CDC, the Racial and Ethnic Approaches to Community Health (REACH) program would receive almost \$51 million, of which \$34 million would go to a new five-year cooperative agreements for community programs and \$16 million for Good Health and Wellness in Indian Country. The Education Research Centers (ERCs) within the CDC's National Institute for Occupational Safety and Health (NIOSH) would also receive \$29 million in funding in FY 2017. Prevention Research Centers at the CDC would receive \$25.46 million.

The omnibus would provide \$309.2 million for Health Resources and Services Administration's (HRSA) Title VII health professions programs, a 1 percent decrease below the FY 2016 enacted level. This amount reflects the decision to move the Behavioral Health Workforce Education and Training (BHWET) Program, which supports behavioral pediatrics, social work, school social work, substance use disorder prevention and treatment, marriage and family therapy, occupational therapy, school counseling, professional counseling, accredited schools of masters or doctoral-level training in psychiatry, and psychiatric-nursing programs, from the Substance Abuse and Mental Health Administration (SAMHSA) to HRSA. Currently, SAMHSA receives funding for the program but HRSA administers the grant. Overall, \$50 million would be provided for the BHWET program.

In addition, within the Title VII health professions programs, the House bill would provide \$30.2 million for the Area Health Education Centers (AHEC) program, the same amount as the FY 2016 enacted level. The omnibus would also provide an additional \$800,000 for the Dental Faculty Loan Repayment Program under Title VII, and directs a new funding opportunity announcement to be issued by HRSA, which would give preference to pediatric dentistry faculty supervising residents and to applicants providing clinical services in dental clinics located in dental schools, hospitals, or community-based affiliated sites.

The Omnibus would provide \$229 million for Title VIII Nursing Workforce Development programs, the same level as FY 2016.

Rural Health activities at HRSA would receive \$156 million, which would be a \$12 million increase. Of that funding, Rural Health Outreach grants and Rural Hospital Flexibility grants would both receive a \$2 million increase. In addition, \$7.3 million would be provided for the Telehealth Network Grant Program, and HRSA is directed to issue a new funding opportunity with preference for small hospitals serving communities with high rates of poverty, unemployment, and substance use.

Of note, NIH is directed to provide one percentage of the amount made available to the National Research Service Awards (NRSA) to HRSA and AHRQ respectively, in an attempt to encourage the expansion of such research awards in primary care and health services research.

The Office of the National Coordinator for Health Information Technology (ONC) continues to be funded at \$60 million.

The omnibus would support federal efforts to address the opioid epidemic across agencies within HHS. Within the CDC, \$112 million would support opioid prescription drug overdose (PDO) prevention activities and prescription drug monitoring programs. \$150 million in additional funds would be provided in the omnibus to support opioid prevention and treatment activities within SAMHSA, on top of the \$500 million recently authorized under the *21st Century Cures Act*. This funding would primarily support Medication-Assisted Treatment programs, pilot programs to address treatment gaps for pregnant and postpartum women with opioid use disorders, and grants to states to train first responders in administering opioid overdose reversal practices. The omnibus would also support opioid misuse prevention and treatment efforts within HRSA and would direct no less than \$50 million of available funding to be awarded for services related to treatment, prevention, and awareness of opioid misuse. More specifically, the language would encourage medical schools and teaching hospitals to strengthen prescriber curricula around substance abuse and pain management. The omnibus would also support educational training grants to medical schools and teaching hospitals under HRSA’s Title VII health professions programs “to develop innovative educational materials related to substance use disorders and pain management.”

Department of Health and Human Services *(In millions of \$)*

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
HRSA	6,384	6,165	6,402	6,461	77 (1.2%)
Title VII	312	294	297	309	-1 (-1.0%)
Title VIII	229	229	229	229	--
Substance Abuse and Mental Health Services Administration (SAMHSA)	3,779	4,211	3,738	3,765	-14 (0.2%)
Mental Health Services	1,167	1,147	1,136	1,181	14 (1.1%)
Substance Abuse Treatment	2,114	2,189	2,113	2,131	17 (0.8%)
Substance Abuse Prevention	211	711	225	223	12 (5.7%)
Agency for Healthcare Research and Quality (AHRQ)	334	363	324	324	-10 (2.9%)

Centers for Disease Control and Prevention (CDC)	7,233	7,839	7,115	7,255	22 (0.3%)
Chronic Disease Prevention and Health Promotion	1,177	1,097	1,064	1,115	-62 (5.2%)
National Institute for Occupational Safety and Health (NIOSH)	339	329	334	335	-4 (1.2%)
Environmental Health	182	182	182	216	34 (18.7%)
Administration for Community Living (ACL)	1,992	2,004	1,935	1,993	1 (0.8%)
National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILR)	104	104	104	104	--
Office of the National Coordinator (ONC)	60	65	60	60	--
Administration for Children and Families (ACF)	32,757	34,128	33,825	33,974	818 (2.5%)

Source: Division H, Departments of Labor, Health and Human Services, and Education, and Related Agencies, Appropriations Act, 2017

<https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20H-%20LABORHHS%20SOM%20OCR%20FY17.pdf>

Department of Homeland Security

The Department of Homeland Security (DHS) would receive \$49.3 billion in the omnibus agreement, which is \$1.46 billion above the FY 2016 enacted level. This significant increase is due largely to the adoption of border security and immigration enforcement investments proposed by the Trump Administration in a supplemental appropriations measure. The bill would limit the use of those funds to investments such as hiring and training additional border security agents and acquiring border technologies, such as sensors and unmanned aircraft systems (UAS); the bill would not provide funding for a physical border wall, which is a major priority for the Administration and point of contention between Democrats and Republicans in Congress.

The Science and Technology (S&T) Directorate would receive nearly \$782 million in FY 2017, which is about \$5 million less than the FY 2016 enacted level and \$8 million less than the amount directed in the Senate Committee report, but more than \$14 million above the amount proposed by the House Committee. In the explanatory report, Congress encourages DHS to bolster investments in the development of biosurveillance technologies and to leverage academic partnerships to promote the effective use of UAS by the agency. Otherwise, the explanatory report defers to the S&T priorities specifically outlined in the Appropriations Committees' respective reports, which included efforts to leverage university research partners to investigate infrastructure resilience research and development (R&D); innovative land and maritime border security practices; UAS sensor and maritime studies, as well as counter-UAS efforts; and ways to combat other physical and cyber threats. Moreover, the House report called for the prioritization of counterterrorism technologies that focus on security vulnerabilities in transit systems, such as air cargo and rail systems, and encouraged DHS to continue to leverage cost-effective modeling and simulation systems for mission-oriented training and planning.

The Office of University Programs, which funds DHS' Centers of Excellence, would receive \$40.5 million, which is a slight increase over FY 2016. This would provide funding for all existing centers and reject cuts to the program continually proposed in President Obama's budget requests. The report directs DHS to utilize partnerships with qualified universities for research support in priority areas, including border security, cybersecurity, and first responder technology. Furthermore, the report directs the US Customs and Border Protection Directorate to collaborate with S&T to jointly brief Committees on requirements and a concept of operations for small UAS, as directed in the House report.

In addition, the bill would sustain state and local preparedness grant funding for the Federal Emergency Management Agency (FEMA), which among other things, provide support for universities to develop regional hazard mitigation plans and address various statewide homeland security priorities. These programs faced significant cuts in the President's proposed budget blueprint for FY 2018.

The bill would also provide significant funding increases to prevent and respond to cyber attacks, as requested in the President's budget blueprint. While cyber was mentioned as a topic of interest for research programs at the agency, a bulk of the new investments will be directed toward enhancing internal operational support to better allow DHS to protect government domains and modernize emergency communications.

Department of Homeland Security

(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
DHS	47,827,955	47,764,000	\$48,072,692	49,283,692	1,455,737 (3%)
Science and Technology Directorate	786,938	767,382	\$789,717	781,746	5,192 (1%)
University Programs	39,724	41,648	\$40,500	40,500	776 (2%)

Source: Division F, Department of Homeland Security Appropriations Act, 2017,
<https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20F-%20HOMELAND%20SOM%20OCR%20FY17.pdf>.

Department of Justice

The US Department of Justice (DOJ) would receive \$28.9 billion for FY 2017, a reduction of nearly \$143 million below the FY 2016 enacted level. The omnibus agreement would significantly cut DOJ's Research, Evaluation, and Statistics account by 23 percent. Despite this reduction, the bill would provide a 9.7 percent increase for the National Institute of Justice (NIJ), DOJ's primary external research program that leverages university partnerships with the goal of strengthening science and enhancing justice. As outlined in the House Committee report, the bill would prioritize funding for NIJ awards related to human trafficking research.

The omnibus would provide significant funding increases for DOJ enforcement and grant assistance programs to combat the opioid epidemic, including \$103 million to implement the *Comprehensive Addiction and Recovery Act of 2016*, which among other provisions, would provide support to state, local, and tribal governments to provide training for the administration of opioid treatments, enhance collaborations between criminal justice and substance abuse agencies, and explore treatment alternatives to incarceration. In addition, the bill would provide \$109.8 million for cross-agency investments in programs to strengthen the relationship between the police and communities they serve, as well as \$15 million for programs to support officer safety, including training support for police officer interactions with mentally unstable individuals.

Department of Justice

(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
DOJ, total	29,089,808	29,437,458	29,246,199	28,947,497	142,311 (0.5%)
Research, Evaluation, and Statistics	116,000	93,000	118,000	89,000	27,000 (23.3%)
National Institute of Justice	36,000	40,000	36,000	39,500	3,500 (9.7%)
Juvenile Justice Programs	270,160	184,250	272,000	247,000	23,160 (8.6%)
Community Oriented Policing Services	212,000	299,000	215,000	221,500	9,500 (4.5%)
Office of Violence Against Women	480,000	527,500	481,500	481,500	1,500 (0.3%)

Source: Division B, Commerce, Justice, Science, and Related Agencies Appropriations Act, 2017, <https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20B%20-%20CJS%20SOM%20OCR%20FY17.pdf>.

Department of State/USAID

The FY 2017 omnibus appropriations bill includes \$57.5 billion in total funding for international affairs programs at the Department of State, United States Agency for International Development (USAID), and related agencies. This figure includes \$16.49 billion in Overseas Contingency Operations / Global War on Terrorism (OCO/GWOT) funding, which is an increase of \$1.59 billion over FY 2016. USAID would be supported at \$1.2 billion, an increase of 5.3 percent above FY 2016 levels. Educational and Cultural Exchange programs through the Department of State would receive \$634.1 million, an increase of 7.3 percent above the FY 2016 level; within this amount, the Department is directed to allocate at least \$240 million to the Fulbright Program.

Global health programs remain a priority for Congress, as the omnibus would provide a total of \$8.7 billion in FY 2017, an increase of 2.6 percent above the FY 2016 enacted level. While there is limited language in the report specific to science, technology, and innovation programs at USAID and the Department of State, the omnibus report states that “not less than \$50,000,000 shall be made available for the Feed the Future Innovation Labs.” As in previous years, language is included encouraging new partnerships between higher education institutions in the United States and developing countries for institutional capacity building, which are directed to be awarded on an “open and competitive basis, including through a new competition during fiscal year 2017.”

International Affairs (Including Department of State and USAID)

(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
International Affairs, Total (Including OCO)	52,891,994	52,080,000	52,242,900	57,529,900	4,637,906 (8.8%)
Title I (Dept. of State and Related Agencies)	11,187,376	11,121,310	11,250,820	11,218,224	30,848 (0.3%)
Educational and Cultural Exchange Programs	590,900	602,790	572,668	634,143	43,243 (7.3%)
USAID Operating Expenses	1,143,614	1,184,416	1,221,925	1,204,609	60,995 (5.3%)
Development Assistance, Total	2,780,971	2,780,971	2,959,573	2,995,465	214,494 (7.7%)
Global Health Programs, Total	8,503,450	8,916,500	8,665,000	8,724,950	221,500 (2.6%)

Source: Division J, Department of State, Foreign Operations, and Related Programs Appropriations Act, 2017

<https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20J%20-%20STATEFOPs%20SOM%20OCR%20FY17.pdf>.

Department of Transportation

The omnibus bill would provide \$76.2 billion for the U.S. Department of Transportation (DOT) - \$18.4 billion less than the FY 2017 budget request, but 1.6 percent above FY 2016 enacted level of \$74.9 billion. Within this amount, funding would be appropriated from the Highway Trust Fund for programs authorized in the Fixing America's Surface Transportation Act (FAST Act). This includes funding for the University Transportation Center program.

The Federal Highway Administration (FHWA), which operates the Turner-Fairbank Highway Research Center and is responsible for most of the transportation and infrastructure research and development within the Department, would be funded at a level of \$43.1 billion, which is almost \$6 billion less than the FY 2017 request but still a marginal increase from FY 2016 enacted levels. The National Highway Safety Administration (NHTSA), which has been responsible for the oversight and regulation of autonomous vehicles, would be funded at a level of \$911.3 million, which is a 4.6 percent increase from FY 2016. The Federal Aviation Administration (FAA) would be funded at a level of \$16.4 billion which is less than a one percent increase from the FY 2016 enacted level, including \$20.03 million for Unmanned Aircraft systems (UAS) research, a \$2.6 million increase from the FY 2016 enacted level.

Similar to the FY 2016 omnibus, Congress has once again included language that would allow states or territories to redistribute earmarked funding from previous infrastructure projects for new infrastructure investments within the state. This provision expands upon guidance released by FHWA in March 2016, which allowed for the reallocation of remaining funds from projects that were cancelled, under-budget, or never moved beyond preliminary planning or environmental review stages.

The omnibus bill modifies the available funding pool to include only projects that had obligated less than 10 percent of the total earmarked amount and those that were completed under-budget or those that were cancelled entirely. The bill also provides increased geographic flexibility for new projects, expanding the reinvestment radius to 100 miles. This is an opportunity for universities to leverage surplus funding in their state to advance transportation infrastructure projects to the benefit of the institution. Eligible projects must qualify for funding under the federal State Transportation Block Grant (STBG) Program; examples include the installation of connected vehicle infrastructure, transportation research and development, and new transportation projects. Lewis-Burke expects guidance to be released from DOT, including a list of each state's eligible funding, later this year.

Department of Transportation

(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
DOT, total	74,972,312	76,882,017	74,658,708	76,212,765	1,240,453 (1.6%)
FHWA	43,100,000	44,005,100	41,794,100	43,148,100	48,100 (0.1%)
NHTSA	869,032	918,327	891,347	911,347	42,315 (4.6%)
FTA	11,757,207	12,499,841	12,332,434	12,414,502	657,295 (5.3%)
FRA	1,678,100	1,720,100	1,753,600	1,851,398	173,298 (9.4%)
FMCSA	580,400	644,200	644,200	644,200	63,800 (9.9%)
FAA	16,280,724	16,349,852	16,412,354	16,407,352	126,628 (0.8%)

PHMSA	96,742	100,000	101,114	99,788	3,046 (3.1%)
MARAD	399,290	483,079	485,160	522,560	123,270 (23.6%)

Source: Division K, Transportation, Housing and Urban Development, and Related Agencies Appropriations Act, 2017

<https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20K%20-%20THUD%20SOM%20OCR%20FY17.pdf>

Environmental Protection Agency

The FY 2017 omnibus would provide the U.S. Environmental Protection Agency (EPA) with \$8.1 billion. This would constitute a slight decrease of \$81.4 million or one percent from the FY 2016 enacted level. Despite intense scrutiny by the Trump Administration and proposed cuts and eliminations for Science and Technology (S&T) programs in the FY 2018 budget blueprint the omnibus would provide relatively modest reductions. This demonstrates that despite Republican concerns over regulatory overreach, Congress is not prepared to enact drastic funding cuts to the agency.

The Science and Technology (S&T) account would receive \$713.8 million, a reduction of \$20.8 million or 2.8 percent below the FY 2016 enacted level of \$734.6 million. Similar to past years, \$4.1 million would be allocated to support water quality and availability research by nonprofit organizations. These grants would be independent of the Science to Achieve Results (STAR) program, and priority would be given to research proposals that include a national scope and a 25 percent match. The report language directs EPA to “strive to award grants in as large an amount as is possible to achieve the most scientifically significant research.”

The omnibus would also include additional guidance on computational toxicology, enhanced aquifer use, and the Integrated Risk Information System (IRIS). Consistent with the Senate bill, the omnibus would support EPA’s efforts to develop novel computational approaches to toxicology research and direct the EPA’s National Center for Computational Toxicology (NCCT) to lead the development of novel applications for computational approaches to risk assessment. The omnibus would also direct EPA S&T to collaborate with the U.S. Geological Survey (USGS) on research activities aimed at using Enhanced Aquifer Recharge (EAR) to augment drinking water sources and mitigate seasonal water scarcity. Finally, the omnibus would recommend that EPA contract with the National Academy of Science to conduct a peer review of the IRIS assessment of formaldehyde.

Environmental Protection Agency

(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
EPA, total	8,139,887	7,967,018	8,118,715	8,058,488	-81,399 (1.0%)
Science and Technology	734,648	720,072	695,910	713,823	-20,825 (2.8%)

Source: Division G, Department of the Interior, Environment, and Related Agencies Appropriations Act, 2017 <https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20G%20-%20INT%20SOM%20FY17%20OCR.pdf>.

Institute of Museum and Library Services

The FY 2017 omnibus appropriations bill includes \$231 million for the Institute of Museum and Library Services (IMLS). This figure reflects a \$1 million increase over the FY 2016 enacted level.

The \$1 million increase over the FY 2016 enacted funding level is divided between the Library Services and Museum Services accounts, with Library Services receiving approximately two-thirds of the total increase. Within Library Services, the National Leadership Grants for Libraries program would receive an increase of \$314,000, while the National Leadership Grants Program for Museums accounts for all growth within the Museum Services account.

With IMLS historically receiving flat funding, internal reallocations have been made to prioritize community engagement, preservation practices among small-to-medium sized libraries and museums, and services for veterans and their families. Because the legislation does not include specific congressional directives or instruction, IMLS will likely continue signature and ongoing programs.

Institute of Museum and Library Services

(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
IMLS, total	230,000	230,000	231,000	231,000	1,000 (0.4%)
Library Services	182,944	183,018	183,370	183,572	628 (0.3%)
National Leadership Grants: Libraries	13,092	13,092	13,406	13,406	314 (2.3%)
Museum Services	29,862	29,862	30,436	30,234	372 (1.2%)
Museums for America	21,149	21,149	20,392	21,149	--
National Leadership Grants: Museums	7,741	7,741	9,120	8,113	372 (4.8%)

Source: Division H, Department of Labor, Health and Human Services, and Education and Related Agencies Appropriations Act, 2017

<http://docs.house.gov/billsthisweek/20170501/DIVISION%20H-%20LABORHHS%20SOM%20OCR%20FY17.pdf>.

National Aeronautics and Space Administration

The omnibus would provide \$19.653 billion for the National Aeronautics and Space Administration (NASA), a \$368 million or 1.9 percent increase above the FY 2016 level, \$610 million above the Obama Administration's FY 2017 request and higher than either of the House and Senate's initial marks for the Agency.

The legislation would provide \$5.765 billion for NASA's **Science Mission Directorate** (SMD). This \$176 million increase above FY 2016 is more than what was proposed in the FY 2017 request and both the House and Senate's initial marks last year.

Much of the increase to SMD would be directed to the **Planetary Science Division** (PSD). The \$1.846 billion for the Division is the same amount sought by the House and significantly higher than either the request or the Senate's proposal. NASA **Mars Exploration Program** (MEP) would receive \$647 million, an amount which would include \$408 million (\$30.5 million above the request) for the Mars 2020 rover and \$20 million for a new Mars orbiter to be launched in the early 2020s. The bill would retain the House's \$15 million allocation for a helicopter technology demonstration accompanying Mars 2020 rover, although the language specifies that NASA should not incorporate it into the mission if delays are anticipated. Outer Planets and Ocean Worlds would be funded at \$348 million, with \$275 million – \$100 million above FY 2016 – directed towards **Europa** clipper and lander missions. Elsewhere within PSD, \$284.7 million is allocated for Planetary Science Research, \$144 million is provided for New Frontiers, and \$224.8 million for Discovery. The omnibus would approve the House report's insistence that NASA request funds in future budget submissions that ensure a dependable and balanced cadence of competed missions. Within Planetary Science Research, \$60 million would be allocated for Near Earth Object Observations, of which \$16.1 million in the Senate report identified for Asteroid Impact and Deflection Assessment (AIDA) and Double Asteroid Redirection Test (DART) is approved. Additionally, the Planetary Technology program would receive \$190 million, including a \$25 million set-aside for technology development to enable future landings on icy solar system bodies that was originally included in the House report.

The FY 2017 omnibus would provide \$1.921 billion for the **Earth Science Division**, unchanged from the FY 2016 enacted level and \$51.2 million below the request. Within this amount and in line with the FY 2017 request, the omnibus would provide \$90 million for the Pre-Aerosol, Clouds, and Ocean Ecosystem (PACE) mission and \$130.9 million for LandSat-9. The omnibus would also approve Senate language supporting a 2020 launch for LandSat-9 and House language directing NASA to ensure a 2020 launch date for NISAR. The omnibus is absent any language regarding Earth Science Research or the Venture Class program. However, it would approve House report language mandating that NASA continue to pursue priorities outlined in the Earth Science decadal survey, one of which was the creation and implementation of Venture.

Congress would provide \$750 million for the **Astrophysics Division**, a \$19.4 million increase above FY 2016 but well below the amounts proposed in the House and Senate bills. The omnibus would include an increase of \$15 million for continued development of WFIRST \$15 million less than proposed by the Senate. In light of concerns that the mission is already experiencing unanticipated cost growth, the report emphasizes the Senate's requirement that NASA cap the mission's cost at \$3.5 billion and support "low level" development of StarShade technologies. The bill would fully fund continued operations for SOFIA and the Hubble Space Telescope.

Concurrent with the Administration's request, the James Webb Space Telescope would be funded at \$569.4 million, a planned decrease from FY 2016. The omnibus approves the Senate's proposed \$5 million to leverage technological capabilities developed for JWST with new investments in technology maturation for future large segmented-mirror telescopes.

Funded evenly out of the Astrophysics and Planetary Science divisions, Congress would provide \$37 million for the Science Mission Directorate's **Education and Public Outreach (EPO)** activities. This would be \$12 million above the request and consistent with FY 2016 levels.

The omnibus would provide **Heliophysics** with \$678.5 million in FY 2017, an increase of \$28.7 million or 4.4 percent over the FY 2016 enacted level and \$4.8 million above the request. This would be the highest funding level appropriated for Heliophysics since FY 2008. The omnibus would support implementation of the *Diversify, Realize, Integrate, Venture, Educate (DRIVE)* initiative and approve Senate report language expressing support for key priorities outlined in the decadal survey. These include an 18-month cadence of alternating small and mid-sized Explorer missions and full funding for the development of the Solar Probe Plus mission (\$232.5 million) and operation of the Magnetospheric Multiscale mission (\$17.4 million).

The **Space Technology Mission Directorate (STMD)** would receive \$686.5 million in FY 2017, the same amount as the FY 2016 enacted level. Within the amount provided for STMD, Congress would provide \$35 million for nuclear thermal propulsion technology (the same as the House FY 2017 mark) and \$30 million for small launch technology platforms (compared to the House's \$45 million). Reflecting language in the House report, the omnibus would also set aside \$25 million for research into additive manufacturing technology for use in the production of rocket engines and structures. Senate priorities were also noted, including \$25.7 million for optical communications and \$66 million for solar electric propulsion technologies. The omnibus would approve the Senate's \$130 million for NASA's satellite servicing mission, *RESTORE-L*.

Little specificity is provided in the explanatory statement regarding NASA's **Human Exploration and Operations Mission Directorate (HEOMD)**, which is funded at \$4.324 billion. This amount is higher than the House proposal and only slightly below the \$4.33 billion provided in the Senate. Funding would be provided for continued development of the Obama Administration's Asteroid Redirect Mission. Language urging HEOMD to work with industry and academia to develop advanced propulsion, landers, and habitats that leverages the capabilities of Orion and the Space Launch System would be approved. So too would direction from the House encouraging NASA to work with academia to increase understanding of the lunar surface and subsurface. The omnibus would also provide \$75 million within HEOMD to augment the development of habitation systems capable of supporting human exploration beyond low-Earth orbit.

The **Aeronautics Research Mission Directorate** would receive \$660 million, with \$169.4 million allocated for the Airspace Operations and Safety Program, which would in part fund the integration of Unmanned Aerial Systems into the National Airspace System. Language in the House would be approved encouraging NASA to continue funding hypersonics and advanced materials research, with the agency directed to partner with university research institutions on the latter.

As in the FY 2016 omnibus, Congress would reject major cuts to NASA-wide **Education** programs proposed in the FY 2017 request. The legislation would include funding for both the Space Grant and

EPSCoR programs at last year's levels. The omnibus would reduce funding for STEM Education and Accountability activities by \$15 million for a total of \$32 million in FY 2017.

Outside of specific mission directorates, the explanatory statement would reject House language mandating an independent feasibility study on transitioning its centers to Federally Funded Research and Development Centers. Instead, the Agency is encouraged to focus on growing and strengthening collaborations between academia and NASA Centers.

National Aeronautics and Space Administration

(in thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
NASA, total	19,285,000	19,508,000	19,306,000	19,653,300	368,300 (1.9%)
Science	5,589,400	5,597,000	5,395,000	5,764,900	175,500 (3.1%)
Earth Science	1,921,000	1,690,000	1,984,000	1,921,000	--
Planetary Science	1,631,000	1,846,000	1,355,900	1,846,000	215,000 (13.2%)
Astrophysics	730,600	792,900	807,000	750,000	19,400 (2.7%)
James Webb Space Telescope	620,000	569,400	569,400	569,400	-50,600 (8.2%)
Heliophysics	649,800	698,700	678,700	678,500	28,700 (4.4%)
Education and Public Outreach (EPO)*	37,000	37,000	42,000	37,000	--
Aeronautics	640,000	712,000	601,000	660,000	20,000 (3.1%)
Space Technology	686,500	739,200	686,500	686,500	--
Exploration	4,030,000	4,183,000	4,330,000	4,324,000	294,000 (7.3%)
Exploration Systems Development	3,680,000	3,779,000	3,934,000	3,929,000	249,000 (6.8%)
Exploration Research and Development	350,000	404,000	396,000	395,000	45,000 (12.9%)
Space Operations	5,029,200	4,890,300	4,950,700	4,950,700	-78,500 (1.6%)

Education	115,000	115,000	108,000	100,000	-15,000 (13.0%)
Aerospace Research & Career Dev.	58,000	58,000	58,000	58,000	--
<i>Space Grant</i>	40,000	40,000	40,000	40,000	--
<i>EPSCoR</i>	18,000	18,000	18,000	18,000	--
STEM Education & Accountability	57,000	57,000	50,000	42,000	-15,000 (26.3%)
Safety, Security, and Mission Services	2,768,600	2,835,400	2,796,700	2,768,600	--
Construction and Environmental Compliance and Restoration	388,900	398,000	400,000	360,700	-28,200 (7.3%)
Office of Inspector General	37,400	38,100	38,100	37,900	500 (1.3%)

*Funds for EPO will be drawn equally from Planetary Science and Astrophysics.

Source: Division B, Commerce, Justice, Science and Related Agencies Appropriations Act 2017
<https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20B%20-%20CJS%20SOM%20OCR%20FY17.pdf>.

National Endowment for the Arts and National Endowment for the Humanities

The FY 2017 omnibus bill would fund the National Endowment for the Arts (NEA) and the National Endowment for the Humanities (NEH) at \$149.8 million each, a nearly \$2 million dollar increase from FY 2016 for each agency, which is consistent with the House FY 2017 mark. The increases stand in contrast to President Trump’s FY 2018 budget blueprint released earlier this year that proposes eliminating funding for both agencies.

Of note, language in the omnibus would ensure that priority for NEA grants is given to “projects, productions, workshops, or programs that serve underserved populations.” In addition, bill language would give priority to NEA grants for applications that “encourage public knowledge, education, understanding, and appreciation for the arts.” Lastly, a provision in the bill would establish a new grant category at NEA focused either on “national impact” or projects that can “tour several states.”

National Endowment for the Humanities & National Endowment for the Arts

(In Thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
NEH, total	147,942	149,848	148,442	149,848	1,906 (+1.3%)
Research Programs	14,536	13,755	13,990	13,755	-781 (-5.4%)
Education Programs	13,040	12,000	12,550	12,000	-140 (-1.1%)
Federal/State Partnerships	43,040	46,000	43,540	46,000	2,960 (+6.9%)
NEA, total	147,949	149,849	148,449	149,849	1,900 (+1.3%)
Grants	118,366	119,177	117,777	119,177	811 (+1.1%)
State and Regional Partnerships	47,346	47,671	46,911	47,517	171 0.4%

Source: Division H, Departments of the Interior, Environment, and Related Agencies Appropriations Act 2017 <https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20G%20-%20INT%20SOM%20FY17%20OCR.pdf>

National Science Foundation

The National Science Foundation (NSF) would be essentially flat funded under the omnibus, receiving \$7.472 billion, a slight increase of nearly \$9 million or 0.1 percent over the FY 2016 enacted level. This amount is in between the House and Senate proposed amounts. The Research and Related Activities (R&RA) account, which funds all of NSF's research directorates, would be flat funded at \$6.034 billion as proposed in the Senate mark but \$50 million below the House-proposed level and FY 2017 budget request level.

The agreement includes almost no language related to R&RA, apart from funding EPSCoR at \$160 million, level with the FY 2016 enacted level and \$10 million below the FY 2017 request. The agreement would also provide \$30 million as requested for the I-Corps program, level with FY 2016 funding.

The omnibus would provide \$209 million for the Major Research Equipment and Facilities Construction Account (MREFC), \$9 million over the FY 2016 level and \$16 million more than requested. The added funding would be provided for an additional third research class regional vessel (RCRV) as directed in the Senate Committee report, although the funding is less than the Senate would have provided. Overall, \$121.88 million would be provided for planning and construction of three RCRVs.

The bill would support the Education and Human Resources (EHR) account at \$880 million, the same as the FY 2016 level and \$19 million below the budget request. The explanatory statement would maintain funding as requested for broadening participation programs; Science, Technology, Engineering, Mathematics + Computing (STEM + C) Partnerships; and Advancing Informal STEM Learning (AISL). The agreement would also provide \$55 million for CyberCorps: Scholarships for Service, \$5 million above the FY 2016 level but \$15 million below the request. The explanatory report would additionally provide \$15 million in funding for a new Hispanic Serving Institutions program, \$10 million more than the Senate-proposed level, but \$15 million below what the House proposed. The program was reauthorized in the *Advancing Innovation and Competitiveness Act* passed in December.

In addition to items specifically called out in the explanatory statement, House and Senate committee report language that is not addressed by the explanatory statement would carry forward, including items related to cybersecurity research, neuroscience, I-Corps, dyslexia, math institutes, sustainable chemistry, astronomy, ocean drilling, supercomputing planning, and directing the National Science Board to consider the account structure and budgetary principles for facility operations costs.

National Science Foundation

(In millions of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
NSF, total	7,463.49	7,406.13	7,509.79	7,472.22	8.73 (0.1%)
Research & Related Activities	6,033.65	6,079.43	6,033.65	6,033.65	--
Education & Human Resources	880	880	880	880	--
MREFC	200.31	87.12	246.57	209	8.69 (4.3%)
Agency Operations and Award Management	330	340	330	330	--
NSB	4.37	4.38	4.37	4.37	--
Office of Inspector General	15.16	15.20	15.20	15.20	0.04 (0.3)

Source: Division B, Commerce, Justice, Science, and Related Agencies Appropriation Act, 2017
<https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20B%20-%20CJS%20SOM%20OCR%20FY17.pdf>.

U.S. Department of Agriculture

The omnibus would provide a total of \$20.9 billion in discretionary funding for the U.S. Department of Agriculture (USDA), which would represent a decrease of \$623 million below the FY 2016 enacted level. With respect to mandatory funding, the bill would provide \$132.5 billion.

The National Institute of Food and Agriculture (NIFA) would receive \$1.36 billion, an increase of approximately 2.75 percent above the FY 2016 level. Within NIFA, the Agriculture and Food Research Initiative (AFRI) would receive \$375 million, an increase of \$25 million above the current enacted level.

Within NIFA, the omnibus would provide flat funding for key formula funding for land-grant institutions: \$243.7 million for formula assistance under the Hatch Act and \$300 million for cooperative extension-activities under the Smith-Lever Act 3(b) and 3(c) programs. These figures match the FY 2016 enacted levels, as well as the Senate and House bills. Consistent with the House measure, the omnibus would not provide the Senate's proposed \$10 million for the Hispanic-Serving Agricultural College and Universities Endowment Fund. Although the Senate bill included funding, the program does not have a history of support from either Agriculture Appropriations Subcommittee. The omnibus would provide an increase of \$1.3 million for NIFA Food and Agriculture Defense Initiative "to expand the National Animal Health Laboratory Network (NAHLN)."

For the Agricultural Research Service (ARS), the bill would provide a total of \$1.27 billion, a decrease of 6.35 percent compared to the FY 2016 enacted level, but slightly higher than both the Senate and House measure. Within ARS, \$1.17 billion would be allocated to the salaries and expenses budget line, an increase of \$26.4 million compared with the FY 2016 enacted level. The building and facilities account would receive \$99.6 million, a significant decrease from the FY 2016 enacted level of \$212 million, but expected based on ARS's Capital Investment Strategy.

The Food Safety and Inspection Service (FSIS) would receive \$1.03 billion, an increase of \$17.19 million (1.69 percent) above the FY 2016 enacted level.

USDA Research, Education, and Economics
(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus v. FY 2016
Agricultural Research Service	1,355,926	1,251,425	1,242,238	1,269,835	86,091 (6.35%)
National Institute of Food and Agriculture	1,326,476	1,341,151	1,363,726	1,362,909	36,433 (2.75%)
AFRI	350,000	375,000	375,000	375,000	25,000 (7.14%)
Hatch Act	243,701	243,701	243,701	243,701	--
Hispanic Serving Agricultural Colleges and Universities Endowment Fund	0	0	10,000	0	--
Smith-Lever Act 3(b) and 3(c)	300,000	300,000	300,000	300,000	--
Food Safety and Inspection Service (FSIS)	1,014,871	1,030,405	1,033,806	1,032,062	17,191 (1.69%)

Source: Division A, Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017
<https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20A-%20AG%20SOM%20OCR%20FY17.pdf>; FY 2016 enacted figures taken from the FY 2017 Senate CJS Appropriations Bill <https://www.congress.gov/congressional-report/114th-congress/senate-report/259/1?q=%7B%22search%22%3A%5B%22committeessap00+Appropriations%22%5D%7D>.

U.S. Geological Survey

The omnibus bill would provide \$1.085 billion for the U.S. Geological Survey (USGS), which is \$23.2 million or 2 percent above FY 2016 level. The topline USGS funding level in the omnibus would be higher than both levels from the House and Senate FY 2017 appropriations bills passed in June, exceeding the House level by \$5 million and the Senate level by \$17 million. Congress rejected cuts of \$83 million to the overall USGS budget from President Obama's FY 2017 budget request.

There is significant bipartisan support for the Natural Hazards Programs which is reflected in the omnibus. The omnibus would fund the **Natural Hazards** account at \$145 million, a \$6 million increase compared to FY 2016 and a higher level than both the House and Senate FY 2017 numbers. Specifically, the bill would provide \$10.2 million to continue to develop and expand the **Earthquake Early Warning System**, consistent with the FY 2017 House numbers, and an increase of \$2 million over last fiscal year.

The omnibus would provide \$149 million for **Climate and Land Use Change Programs**, a 6.6 percent increase compared to the FY 2016 enacted level. This increase would be mainly used to fund continued development of the Landsat-9 satellite. The Senate directive to increase funding for Arctic research is also included in the compromise bill. **Climate Science Centers** would be slated for cuts of \$1.1 million, or 4.2 percent, which is \$9.4 million less than proposed in the request. All **Climate Variability Programs** would also experience decreases in funding.

The bill would provide funding for the **Water Resources Research Institutes** at the FY 2016 enacted level of \$6.5 million.

U.S. Geological Survey
(In thousands of \$)

	FY 2016 Enacted	FY 2017 House	FY 2017 Senate	FY 2017 Omnibus	FY 2017 Omnibus vs. FY 2016
USGS, total	1,062,000	1,080,006	1,068,135	1,085,167	23,167 (2.2%)
Natural Hazards	139,013	142,863	142,339	145,013	6,000 (4.3%)
Earthquake Hazards Program	60,503	63,303	63,003	64,303	3,800 (6.3)
Global Seismographic Network	6,453	6,653	6,453	6,653	200 (3.1%)
Ecosystems	160,232	160,732	157,541	159,732	-500 (0.3%)
Climate and Land Use Change	139,975	145,975	140,475	149,275	9,300 (6.6%)
Climate Science Centers	26,435	26,435	21,935	25,335	-1,100 (4.2%)
Energy, Minerals, and Environmental Health	94,511	94,511	94,511	94,311	-200 (0.2%)
Water Resources	210,687	216,060	211,187	214,754	4,067 (1.9%)
Water Resources Research Act	6,500	6,500	6,500	6,500	--
Core Science Systems	111,550	113,833	116,050	116,050	--
Facilities	100,421	100,421	100,421	100,421	--

Source: Division G, Department of the Interior, Environment, and Related Agencies Appropriations Act, 2017 <https://rules.house.gov/sites/republicans.rules.house.gov/files/115/OMNI/DIVISION%20G%20-%20INT%20SOM%20FY17%20OCR.pdf>.