

AGI Federal Geoscience Education Policy Review

January-June 2018

The American Geosciences Institute's (AGI) Department of Education and Policy presents the first Federal Geoscience Education Policy Review. This mid-year review summarizes key federal policy actions from January through June 2018 that are relevant to geoscience educators. The review breaks down funding of science and educational programs, legislative and executive actions guiding federal STEM education policies, and other updates related to the geosciences. The information in this review is from AGI and other sources – you may click the links for more on each story.

For more insight into federal policy process, please see resources from the Library of Congress: [videos of the legislative process](#), [resources for K-12 educators](#), and [other informational material](#). We hope that you find this first edition of the Federal Geoscience Education Policy Review useful and informative, and we appreciate feedback to improve future editions of this product.



U.S. Department of Education

The American Geosciences Institute is a nonprofit federation of 52 scientific and professional associations that represents more than 260,000 geoscientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in the profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resiliency to natural hazards, and interaction with the environment.

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FISCAL YEAR 2018 BUDGET

Congress passes FY 2018 omnibus appropriations bill with record funding of geoscience agencies

After passing a series of [continuing resolutions](#) to provide more time to craft a comprehensive appropriations omnibus bill for fiscal year (FY) 2018, Congress finally passed a \$1.3 trillion spending bill on March 23, 2018, that funds the federal government through September 2018. The 2,232-page [Consolidated Appropriations Act of 2018](#) with accompanying committee [report language](#) funds some of the priorities outlined in [President Donald Trump's FY 2018 budget request](#), such as increased spending for military, infrastructure, border security, and solutions to the opioid epidemic, but mostly rejects the Trump administration's proposed deep cuts to science agencies and education programs. Instead, many science agencies and the Department of Education received [increased funding](#) reflecting the increased budget authority for FY 2018 non-defense discretionary spending agreed to last month in the [Bipartisan Budget Act of 2018](#).

- ▶ **Department of Education (DOEd):** The bill provides \$70.9 billion in discretionary funding for the U.S. DOEd, a \$2.6 billion increase above the FY 2017 level. This funding includes \$50 million for evidence-based STEM education programs within the Education Innovation and Research program, and it includes an almost three-fold increase in Student Support and Academic Enrichment formula grants that all school districts can use for activities including STEM education. See the [article](#) published in April by FYI: Science Policy News from the American Institute for Physics (AIP) for more on DOEd appropriations relating to STEM education.
- ▶ **U.S. Geological Survey (USGS):** The bill provides \$1.15 billion for USGS – a \$63 million or 6 percent increase from the FY 2017 enacted level, and a \$230 million or 25 percent increase above the President's FY 2018 request of \$922 million.
- ▶ **National Science Foundation (NSF):** Overall, Congress appropriated \$7.77 billion for NSF, an increase of \$295 million or 4 percent above the FY 2017 enacted level and \$1.1 billion above the President's budget request. [Report language](#) justified this strong investment in basic science research due to Congress' growing concern that China and other competitors are outpacing the United States in terms of research spending, as noted in the 2018 Science and Engineering Indicators [report](#).
- ▶ **National Oceanic and Atmospheric Administration (NOAA):** The bill provides NOAA with \$5.9 billion, an increase of \$234 million or 4 percent above the FY 2017 enacted level and \$1.1 billion above the President's FY 2018 request. Increased funding across NOAA's line offices continues to support the National Sea Grant College program and the National Estuarine Research Reserve System. Congress rejected the Administration's request to eliminate [NOAA's Office of Education](#) and provided funding for the program at \$28 million, a 5 percent increase from FY 2017.
- ▶ **National Aeronautics and Space Administration (NASA):** Congress increased the NASA budget to \$20.7 billion, an increase of \$1.1 billion or 6 percent above FY 2017 enacted level and \$1.6 billion above the President's FY 2018 request. While Science received an eight percent increase to \$6.2 billion, Earth Science funding remained flat at \$1.9 billion. The bill also maintains \$100 million for [NASA's Office of Education](#) despite the President's request to decrease funding to \$37 million.
- ▶ **Smithsonian Institution:** The omnibus appropriations bill increased the Smithsonian Institution's budget by 21 percent to \$1.04 billion, including \$584,000 more for the National Museum of Natural History.

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- ▶ **Department of Energy (DOE):** DOE received one of the largest increases in FY 2018 with Congress appropriating \$34.7 billion for the Department, an increase of \$3.8 billion or 12 percent above the FY 2017 enacted level and \$6.5 billion above the President's FY 2018 request. DOE's Office of Science received \$6.26 billion for an increase of 16 percent above the FY 2017 enacted level.
- ▶ **Environmental Protection Agency (EPA):** Rejecting President Trump's FY 2018 proposed cuts of 31 percent to the EPA, Congress retained the EPA's funding at the FY 2017 enacted level of \$8.1 billion.
- ▶ **National Park Service (NPS):** The FY 2018 omnibus also appropriated \$3.19 billion for the NPS, an increase of \$255 million above the FY 2017 enacted level. This includes a \$175 million increase for construction backlog, maintenance, and funding for new park units.

See the full **FY18 omnibus news brief** posted on our website for more detailed information and highlights of geoscience agencies.

http://bit.ly/AGI_FY18_Omni

For more information on the federal budget process, including a more detailed programmatic funding analysis for geoscience-related agencies, please visit AGI's **Overview of Fiscal Year 2018 Appropriations**.

http://bit.ly/AGI_FY18

Final FY18 Appropriations: STEM Education FYI: Science Policy News from American Institute of Physics (AIP), April 2018:

The final appropriations law for fiscal year 2018 rebuffs the deep funding cuts that the Trump administration has proposed for federal STEM education programs. Congress instead provides flat funding or greater for most STEM education programs at science-funding agencies and preserves several Department of Education grant programs that states and districts can use to support STEM education. Read more [here](#).

FISCAL YEAR 2019 BUDGET

President Trump's FY 2019 budget request proposes cuts to many federal science agencies

President Donald Trump released his \$4.4 trillion budget proposal for fiscal year (FY) 2019 on February 12 prioritizing defense, border security, infrastructure, and the opioid crisis, while proposing significant cuts to many domestic programs, including the Department of Education and science agencies. The [President's FY 2019 Budget](#) included a last-minute [addendum](#) outlining additional spending priorities, developed after Congress passed the [Bipartisan Budget Act of 2018](#) on February 9 to raise the defense and non-defense discretionary spending caps for FY 2018 and FY 2019. The addendum effectively decreased some of the initially proposed cuts to a few science agencies; however, even with the addendum additions, the President's budget request for non-defense discretionary spending remained \$57 billion below the caps agreed upon by Congress.

► **Department of Education (DOEd):** The President's Budget provides \$63.2 billion in discretionary funding, a \$7.7 billion or 11 percent decrease below the 2018 enacted level. The [Department justification](#) explains that the budget eliminates, streamlines, or reduces 39 discretionary programs that duplicate other programs, are ineffective, or are more appropriately supported by state, local, or private funds. Consistent with the [Presidential Memorandum on STEM education](#), the FY 2019 Budget includes \$200 million in new grants to improve STEM education: \$180 million for competitive [Education Innovation and Research](#) grants that would support evidence-based strategies and interventions to improve student achievement in STEM fields, and \$20 million for awards to consortia of secondary and postsecondary providers that would work with employers and local workforce agencies to create innovative career and technical education programs in STEM fields that are aligned with regional workforce and labor market needs. See the [article](#) published by

FYI: Science Policy News from AIP in March for more on DOEd funding proposals relating to STEM education.

- **U.S. Geological Survey (USGS):** The President's FY 2019 budget request for the [Department of the Interior](#) proposes drastic reductions to the majority of functions within the USGS. The [FY 2019 budget request](#) for the USGS includes a total of \$859.7 million – a 25 percent decrease from FY 2018 enacted levels. These proposed cuts would impact most fundamental activities conducted by the agency, as well as funding for state geological surveys and other nongovernmental partners. The proposed cuts would reduce direct staffing levels by 25 percent, or 1,029 direct full-time equivalents (FTE). The proposal also includes a cut of almost 50 percent to the [USGS Libraries](#), which have already experienced reductions in 2017.
- **National Science Foundation (NSF):** While the President's original budget proposal would have cut NSF funding by \$2.4 billion or 32 percent compared to its FY 2018 appropriations, the addendum in the FY 2019 request restored funding for NSF at \$7.47 billion – a 4 percent reduction from FY 2018. The [request](#) decreases the Research and Related Activities account by \$184 million and Education and Human Resources by \$29 million compared to FY 2018. The request provides \$853 million for the Directorate for Geosciences (GEO), an increase of \$27 million or 3.3 percent compared to FY 2017 funding. Within GEO, the proposal would decrease funding for Atmospheric and Geospace Sciences and Earth Sciences while providing increases to Ocean Sciences and Polar Programs.
- **National Oceanic and Atmospheric Administration (NOAA):** The President's budget outlined \$4.56 billion total funding for NOAA, representing a \$1.3 billion or 23 percent decrease from FY 2018 levels. Within the agency, thirty-four programs face proposed

reductions and thirty-one programs are slated for termination. Many of these programs are the same as those proposed for elimination in the President's FY 2018 request. These include the [Office of Education](#), the [National Estuarine Research Reserve System](#), the [National Sea Grant College Program](#), and many coastal, climate, weather, and air research programs.

- **National Aeronautics and Space Administration (NASA):** NASA would receive a 4 percent decrease of \$844 million from FY 2018, providing for a total budget of \$19.9 billion, after the addendum added \$300 million to the agency's original FY 2019 budget request, of which \$235 million would augment the Administration's Exploration Campaign. The agency's [budget overview](#) states that it would redirect [Office of Education](#) funding to new initiatives supporting NASA's core mission of exploration. The budget proposal would cut funding for NASA's Earth Science research program by approximately 6 percent.
- **Smithsonian Institution:** The FY 2019 request for the Smithsonian Institution is \$738 million, a 29 percent decrease from FY 2018 enacted levels. The request includes flat funding for the National Museum of Natural History at \$49.8 million.

FY19 Budget Request: Administration prioritizes some STEM education programs, cuts others

FYI: Science Policy News from American Institute of Physics (AIP), March 2018:

The Trump administration's fiscal year 2019 budget request for the Department of Education prioritizes certain STEM education programs, while again proposing deep cuts to the Department's primary grant programs, which support STEM education at state and district levels. The administration would also mostly cut or maintain budgets for other STEM education programs across the federal government. Read more [here](#).

See the full [FY19 budget news brief](#) posted on our website for more detailed information and highlights of geoscience agencies.

http://bit.ly/AGI_FY19_Budget

- **Department of Energy (DOE):** The FY 2019 [budget request for DOE](#) is \$30.6 billion, an 11 percent decrease compared to FY 2018. The original budget would have cut DOE's Office of Science by 22 percent, but the addendum restored \$1.2 billion for fundamental scientific research resulting in a funding request for the Office of Science at \$5.4 billion. Within the Office of Science, the budget request includes an 11 percent reduction to \$1.85 billion for the Basic Energy Sciences program, and a \$112 million or 26 percent cut to Biological and Environmental Research.
- **Environmental Protection Agency (EPA):** The EPA was initially slated for a 34 percent cut compared to FY 2018, but the addendum directed an additional \$724 million in spending for the agency, bringing the final EPA request to \$6.15 billion, a requested reduction of \$2 billion. According to EPA's [Budget in Brief](#), thirty-nine programs would be eliminated along with reductions to many other programs across the agency. The budget also outlines plans to reshape the EPA workforce, reducing the number of full-time employees from an estimated 15,408 in FY 2018 to 12,250 in FY 2019.
- **National Park Service (NPS):** The President's request of \$2.7 billion would cut NPS by about 15 percent compared to the amounts provided in FY 2018. The NPS would have received steeper cuts from the original request, but the addendum provided additional spending for the management, operation, and maintenance of park areas and facilities.

House and Senate move forward with FY 2019 appropriations bills

Before the July recess, both House and Senate Committees on Appropriations approved most of their twelve respective FY 2019 appropriations bills to fund agencies across the federal government. While the Senate Committee on Appropriations finished approving the bill to provide funds for the Department of Education, the House Committee pushed their vote until after Independence Day holiday break. In June, the House and Senate also consecutively passed the Energy and Water, Legislative Branch, and Military Construction and Veterans Affairs Appropriations Act, 2019 (H.R. 5895). The bill, dubbed a “minibus,” combines three appropriations bills and includes funding for the Department of Energy. More appropriations bills are slated to be considered in July, with Senate Majority Leader Mitch McConnell vowing to [shorten](#) the Senate’s August recess to proceed with nominee confirmations and appropriations legislation before the deadline of September 30, 2018.

► **Department of Education (DOEd):** For DOEd, the Senate [bill](#) would provide \$74.9 billion, \$113 million above FY 2018 enacted levels and \$7.7 billion above the President’s request, while the House [bill](#) would provide \$74.3 billion. Under the [Education Innovation and Research](#) program (EIR), the House Committee notes that funds available under this program may be used by States and school districts to provide or strengthen instruction in STEM fields, including computer science. The Senate bill specifically directs \$65 million of EIR program funding for STEM education. The Senate Committee suggested that several other programs, including formula grants to school districts through the Student Support and Academic Enrichment program, which is increased by \$125 million, could also be used for STEM education activities. The Senate bill would maintain levels for Career and Technical Education at \$1.2 billion, while the House bill would increase funding by \$115 million.

- **U.S. Geological Survey (USGS):** While the Senate provides flat funding for the USGS at \$1.15 billion, the House bill includes \$19 million above the FY 2018 enacted level for USGS in FY 2019.
- **National Science Foundation (NSF):** The House Appropriations committee approved \$8.2 billion for NSF, which is \$407.5 million more than the amount provided in FY 2018. This includes \$6.65 billion to support Research and Related Activities, which encompasses research activities of the Geoscience Directorate (GEO). The Senate bill would provide \$8.1 billion for NSF with \$6.49 billion for Research and Related Activities. The Education and Human Resources account would receive flat funding at \$902 million from the House bill, but an increase of \$13 million from the Senate. The House committee urged NSF to focus Discovery Research PreK-12 grants on early childhood and to broaden the participation of underrepresented populations in STEM education programs.
- **National Oceanic and Atmospheric Administration (NOAA):** The House Appropriations committee approved a reduction in NOAA funding by \$750 million for a total budget of \$5.16 billion. The Senate bill would also reduce NOAA funding to \$5.48 billion. Both committees rejected the administration’s proposal to eliminate [NOAA’s Office of Education](#), with the House providing an increase of \$500,000 for the office.
- **National Aeronautics and Space Administration (NASA):** The House Appropriations committee approved an increase of \$840 million for NASA with overall funding at \$21.6 billion, and the Senate committee approved \$21.3 billion for the agency. While both bills would increase funding for NASA Science, the Earth Science program would receive a cut of \$21 million from the House and an increase of \$10 million from the Senate. The House bill would decrease [NASA Education](#) funding by \$10 million compared to FY 2018, providing a total of \$90 million; however, the Senate bill would increase the program by \$10 million “in order to educate and inspire the next generation of explorers and innovators.”

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- ▶ **Smithsonian Institution:** The Smithsonian Institution would maintain the same level of funding as last year (\$1.04 billion) from the Senate, but would receive an increase of \$12 million from the House.
- ▶ **Department of Energy (DOE):** The House passed [H.R. 5895](#) with an increase in DOE funding by \$925 million for a total budget of \$35.5 billion, while the Senate amended the bill to provide a slightly lower appropriation for DOE at \$35.0 billion. Both chambers voted to increase funding for the DOE's Office of Science, with a Senate amount of \$6.60 billion and a House amount of \$6.65 billion. While the House voted for flat funding for Workforce Development for Teachers and Scientists at \$19.5 million, the Senate voted to provide a modest increase of \$5 million.
- ▶ **Environmental Protection Agency (EPA):** While the Senate bill once again proposes flat funding for the EPA, the House bill would decrease EPA funding by \$100 million in FY 2019.

For more information on the federal budget process, including a more detailed programmatic funding analysis for geoscience-related agencies, please visit AGI's [Overview of Fiscal Year 2019 Appropriations](#) and [news briefs on the budget process](#).
http://bit.ly/AGI_FY19

Explore AGI's news briefs on the budget process
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- ▶ **National Park Service (NPS):** The National Park Service, funded at \$3.20 billion for FY 2018, would see an increase of \$50 million from the House and \$33 million from the Senate.

Federal Agency	FY 2018 Final Funding	FY 2019 President Request	FY 2019 House Bill	FY 2019 Senate Bill	FY 2019 Final Bill
Department of Education	\$70.9 billion	\$63.2 billion • 39 programs cut • \$200 million for STEM	\$74.3 billion	\$74.9 billion	NA
National Science Foundation	\$7.77 billion	\$7.47 billion • 3% cut to Ed Resources	\$8.17 billion • Focus on early childhood	\$8.07 billion • 1% increase to Ed Resources	NA
National Oceanic and Atmospheric Administration	\$5.91 billion	\$4.56 billion • Eliminate the Office of Education	\$5.16 billion • Add 1/2 million to the Office of Education	\$5.48 billion • Flat funding for the Office of Education	NA
National Aeronautics and Space Administration	\$20.7 billion	\$19.9 billion • Eliminate the Office of Education	\$21.6 billion • 10% cut to the Office of Education	\$21.3 billion • Flat funding for the Office of Education	NA
U.S. Geological Survey (DOI)	\$1.15 billion	\$860 million • 50% cut to libraries	\$1.17 billion	\$1.15 billion	NA
National Park Service (DOI)	\$3.20 billion	\$2.73 billion	\$3.26 billion	\$3.22 billion	NA
Smithsonian Institution	\$1.04 billion	\$0.738 billion	\$1.06 billion	\$1.04 billion	NA
Department of Energy	\$34.7 billion	\$30.6 billion	\$35.5 billion	\$35.0 billion	NA
National Park Service (DOI)	\$3.20 billion	\$2.73 billion	\$3.26 billion	\$3.22 billion	NA

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CONGRESSIONAL UPDATES

Directors of NSF and NIST testify regarding progress on implementing the American Innovation and Competitiveness Act

On January 30, the Senate Committee on Commerce, Science, and Transportation held a [hearing](#) entitled “One Year Later: The American Innovation and Competitiveness Act.” One of the last bills President Barack Obama signed into law before his term ended (Public Law 114-329), the [American Innovation and Competitiveness Act](#) (AICA) was the most comprehensive science and technology policy legislation to be enacted since the America COMPETES Acts of 2007 and 2010. The AICA reauthorized and updated policies at the National Science Foundation (NSF), the National Institute of Standards and Technology (NIST), the White House Office of Science and Technology Policy (OSTP), and other federal science agencies. At the hearing, co-sponsors of the bill, Senators Cory Gardner (R-CO), Gary Peters (D-MI), John Thune (R-SD), and Bill Nelson (D-FL), reflected upon the American scientific enterprise and questioned the Director of NSF, Dr. France Córdova, and the Director of NIST, Dr. Walter Copan, about progress made by the agencies to implement the AICA. Read more [here](#).

House passes early childhood STEM bill

On February 13, the House of Representatives passed the Building Blocks of STEM Act ([H.R. 3397](#)), sponsored by Representative Jacky Rosen (D-NV-3) with 31 cosponsors. The bill directs NSF to consider age when awarding grants through the Discovery Research PreK-12 (DRK-12) program so that more research is conducted on early childhood STEM activities. The bill further directs NSF to award grants to research and programs aimed at increasing the participation of young girls in STEM and computer science activities. Read more [here](#).

House science subcommittee hearing explores mentoring, training, and apprenticeships for STEM

On February 15, the House Subcommittee on Research and Technology held a hearing to explore how participation in mentoring, training, and apprenticeship opportunities impact STEM students and workforce development. The Mentoring, Training, and Apprenticeships for STEM Education and Careers hearing comes after a Joint Economic Committee Democrats [report](#), “Expanding Opportunities through Middle-Skills Education,” that was released on January 11 highlighting the need to invest in “middle-skills” education pathways, which consist of education beyond high school but not a four-year degree. The report shows that middle-skills jobs make up one-third of all jobs in the United States and are projected to remain in demand in the future. In his opening statement, Science Committee Chairman Lamar Smith (R-TX-21) emphasized the nation’s increasing STEM workforce demand and the importance of STEM jobs for economic prosperity, citing the National Science Board’s (NSB) recent [Science and Engineering Indicators report](#), which found that the number of U.S. jobs requiring STEM and computer skills has grown nearly 34 percent over the past decade. Read more [here](#).

House Science Committee advances STEM education and research bill

On April, 17, the House Science Committee held a full committee [markup](#) of the Innovations in Mentoring, Training, and Apprenticeships Act ([H.R. 5509](#)). The bill directs NSF to provide grants for research about STEM education approaches and the STEM-related workforce. The bill would establish three areas for competitive STEM Innovation and Apprenticeship grants, all of which would come from funds within NSF’s Education and Human Resources Directorate. The three grant areas direct NSF to focus on: community colleges that are developing or improving associate degree

and certificate programs in STEM fields in which there is significant workforce demand in their region; universities partnering with employers who commit to offering apprenticeships, internships, or other applied learning experiences to students enrolled in a four-year STEM degree; and institutions of higher learning or nonprofits conducting research on the best practices of computer-based and online courses for technical skills and training. The bill would also direct the Directorate of Social, Behavioral & Economic Sciences at NSF to commission research on skilled technical workforce development in the U.S. compared to other developed countries. The Innovations in Mentoring, Training, and Apprenticeships Act was approved by the committee with the adoption of only one amendment, which was offered by Representative Suzanne Bonamici (D-OR-1) to include industry or private sector partnerships as priorities in considering applications for grants. The bill now awaits a full chamber vote on the House floor. Read more [here](#).

House Committee approves the Every Kid Outdoors Act and the Education and Energy Act

On May 16, the House Committee on Natural Resources unanimously approved the Every Kid Outdoors Act ([H.R. 3186](#)) directing the Departments of the Interior, Agriculture, Commerce, and the Army to establish the Every Kids Outdoors program providing fourth graders free access to federal lands and waters to which the public has access. On request of a student, the Secretaries would issue a pass to the student allowing access to federal land and waters free of charge for the student and accompanying individuals. The following month, the House Committee on Natural Resources [approved](#) the Education and Energy Act ([H.R. 5859](#)) introduced by Representative Scott Tipton (R-CO-3). The act would amend the Mineral Leasing Act to require that a portion of revenues from new federal mineral and geothermal leases be paid to states to supplement the education of K-12 student and support of institutions of higher education.

Senate Committee approves reauthorization of the Carl D. Perkins Career and Technical Education Act

On June 26, the Senate Committee on Health, Education, Labor, and Pensions [unanimously approved S. 3217](#), the Strengthening Career and Technical Education for the 21st Century Act, as committee members expressed support for a bipartisan reauthorization of the Carl D. Perkins Career and Technical Education Act of 2006 ([PL 109-270](#)). With a total of \$1.2 billion in funding, at least 85 percent of Perkins grants go to local eligible recipients, which can include school districts and area technical centers at the secondary education level and community/technical colleges, institutions of higher education, and area technical centers at the postsecondary level. On average, eligible agencies split Perkins grants by dedicating 62 percent to secondary programs. In summer 2017, the House passed by voice vote their version of the Strengthening Career and Technical Education for the 21st Century Act ([H.R. 2353](#)) to authorize the program to FY 2023. The Association for Career and Technical Education provides a [legislative summary](#) of H.R. 2353. The STEM Ed Coalition released a [statement](#) that the “Coalition would like to see an even stronger emphasis on STEM subjects and activities, and greater openness to eligible consortiums with youth-serving STEM entities and non-profits in the final law and we are committed to working with House and Senate leaders to achieve that goal.”

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EXECUTIVE BRANCH UPDATES

Department of the Interior mandates political review for grants of at least \$50K to universities and nonprofits

Based on a December 28, 2017 [memorandum](#) obtained by the Washington Post, the Department of the Interior (DOI) is now mandating review by a political appointee for all grants and cooperative agreements with an individual or aggregate award of at least \$50,000 to a nonprofit organization that can legally engage in advocacy or to an institution of higher education, and for all grants or cooperative agreements of over \$100,000. In the memo, [Scott Cameron](#), DOI's principal deputy assistant secretary for policy, management, and budget, instructed other assistant secretaries and heads of bureaus and offices to submit qualifying grants and agreements to one of his senior advisors for approval. The memo also states that financial decisions will promote Interior Secretary Ryan Zinke's "Top Ten Priorities," which are listed in an [attachment](#). Read more [here](#).

NSF report on the state of U.S. science shows America in the lead as China rapidly advances

According to the NSF's [Science and Engineering Indicators 2018](#) report released on January 18, the U.S. is currently the global leader in science and technology (S&T), though our nation's share of global S&T activities is declining as others continue to rise. As countries across the world have increasingly come to view scientific and technical capabilities as engines of economic growth, many have been escalating efforts and heavily investing to improve their S&T capabilities. Building on their relative strengths, China's rapid, unprecedented, and sustained growth has been accompanied by S&T developments in India, South Korea, and other Asian countries.

Along with the report, the National Sciences Board (NSB) released a policy companion [statement](#) that addresses the need to grow a STEM-capable U.S. workforce. The statement

notes that the number of Americans with a four-year degree in S&T grew by 53 percent between 2000 and 2014; in China, this number increased by 360 percent. Read more [here](#).

White House Office of Science and Technology Policy hosts a State-Federal STEM Education Summit

On June 25 and 26, the White House Office of Science and Technology Policy (OSTP) hosted the [2018 State-Federal STEM Education Summit](#), bringing together education and science leaders from eighteen federal agencies along with more than two hundred STEM leaders. Throughout the summit, administration officials engaged in a dialog with these stakeholder groups to consider their input for development of the upcoming Federal STEM Education Strategic Plan, which is required by the America COMPETES Act of 2010 ([PL 11-358](#)) to be updated every five years. The summit closed with celebrating the more than 140 individuals and organizations honored with [presidential awards](#) for their excellence in teaching or mentoring in STEM. The Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST) honored K-6 teachers. Mentors received the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring (PAESMEM). Read more [here](#).

White House releases plan to reform and reorganize executive branch agencies

On June 21, the Office of Management and Budget (OMB) released a [plan](#) to reform and reorganize executive branch departments and agencies of the federal government, following President Donald Trump's March 13, 2017, executive order ([E.O. 13781](#)) intended to improve the efficiency, effectiveness, and accountability of the executive branch. The plan outlines over eighty recommendations for structural realignment across the executive branch, including changes to geoscience-related

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federal agencies. At a House Committee on Oversight and Government Reform [hearing](#) on June 27, the OMB deputy director for management, Margaret Weichert, [explained](#) that the plan is a blueprint for public debate and congressional consideration. Ms. Weichert suggested that the proposed changes would take three to five years to execute, and that OMB would work with Congress to determine and approve aspects of the proposal that require congressional authority.

A cabinet level change would merge DOEd and the Department of Labor (DOL) into a single federal department, to be known as the Department of Education and the Workforce (DEW), with the intent to meet the needs of American students and workers, from education and skill development to workplace protection and retirement security. Under DEW, four main agencies would focus on K-12, Higher Education/Workforce Development, Enforcement, and Research/Evaluation/Administration.

According to the proposal, the K-12 agency would support state and local educational agencies to improve the achievement of preschool, elementary, and secondary school students, including students with disabilities, Native American students, and English language learners. The agency would be comprised of improved DOEd K-12 offices that would better integrate across K-12 programs and more effectively coordinate with higher education and workforce programs. The K-12 agency would administer activities that are currently implemented by DOEd's Offices of Elementary and Secondary Education, Innovation and Improvement, English Language Acquisition, and Special Education Programs.

Another new agency, the American Workforce and Higher Education Administration (AWHEA) would bring together current DOL workforce development programs and DOEd vocational education, rehabilitation, and higher education programs. The Research, Evaluation, and Administration agency would include centralized offices focused on policy development, research, and evaluation, and the Bureau of Labor Statistics would be moved to the Department of Commerce as part of an effort to bring the primary economic statistical agencies under one umbrella.

See the full [news brief](#) posted on our website for proposals affecting geoscience related agencies.

Nominations

- ▶ On March 22, [Mark Schneider](#) was confirmed as Director of the Institute of Education Science at the Department of Education for a six-year term. For more information, see the [article](#) by Education Week.
- ▶ On April 9, [Dr. James Reilly](#) was confirmed as Director of the U.S. Geological Survey after his [confirmation hearing](#) on March 6.
- ▶ On April 19, [Former Representative James Bridenstine](#) was confirmed as NASA Administrator.
- ▶ On May 15, [Scott Stump](#) was nominated to be Assistant Secretary for Career, Technical, and Adult Education at the Department of Education.
- ▶ On May 16, [Mitchell Zais](#) was confirmed to be Deputy Secretary of Education with focus primarily on K-12 education policy.
- ▶ On May 24, [Dr. Christopher Fall](#) was nominated as the Director of the Office of Science at the Department of Energy.
- ▶ On June 25, [Frank Brogan](#) was confirmed as Assistant Secretary for Elementary and Secondary Education, Department of Education.

To track the progress of key geoscience nominees, please visit AGI's [Federal Nominations page](#).

<https://www.americangeosciences.org/policy/federal-nominations>

GRANTS, MEETINGS, REPORTS, AND OTHER NEWS

- **Department of Education:** The Office of the Deputy Secretary issued a notice for new common instructions for applicants to the Department of Education Discretionary Grant Programs. The common instructions provide applicants with a centralized and up-to-date set of instructions for applying to these programs. To obtain a copy via the Department's website, use the following address: <https://www2.ed.gov/fund/grant/apply/grantapps/index.html>. [83 FR 6003 (February 12, 2018)].
- **Department of Education:** The Department of Education is inviting applications for new awards for the FY 2018 Pathways to STEM Apprenticeship for High School Career and Technical Education Students demonstration program. The application deadline is July 17, 2018; the Perkins Collaborative Research Network hosts a [recorded webinar](#) about applying. [83 FR 23263 (May 18, 2018)].
- **Department of Education:** The Department of Education's Institute of Education is inviting applications for new awards for FY 2019 Education Research and Special Education Research Grant Programs. [83 FR 23441(May 21, 2018)].
- **Department of Education:** The Department of Education's Institute of Education is inviting applications to fund a \$1.45 million cooperative agreement to establish and operate a national Center on Early Science, Technology, Engineering, and Mathematics (STEM) Learning, for Young Children with Disabilities. Deadline for applications is July 30, 2018. [83 FR 30708 (June 29, 2018)].
- **National Oceanic and Atmospheric Administration (NOAA):** The National Sea Grant Advisory Board held a virtual meeting on May 14 and shared [The State of Sea Grant 2018 Biennial Report to Congress](#). The next meeting will be on September 16-17, 2018 in Portland, OR. More information can be found at <https://seagrant.noaa.gov/About/Advisory-Board>. [83 FR 18506 (April 27, 2018)].
- **National Science Foundation (NSF):** NSF held an Advisory Committee for Education and Human Resources (EHR) meeting on May 31 and June 1. Minutes and meeting materials are available on the EHR Advisory Committee website at <http://www.nsf.gov/ehr/advisory.jsp>. [83 FR 18351 (April 26, 2018)].
- **National Science Foundation (NSF):** NSF's Research on Learning in Formal and Informal Settings is inviting applications for the Innovative Technology Experiences for Students and Teachers (ITEST) program, which provides educational opportunities for K-12 Educators. Application deadline is August 8, 2018. Click [here](#) for more information.
- **National Science Foundation (NSF):** NSF's Directorate for Undergraduate Education is inviting applications for the Robert Noyce Teacher Scholarship Program, which seeks to encourage talented science, technology, engineering, and mathematics (STEM) majors and professionals to become K-12 mathematics and science (including engineering and computer science) teachers. Application deadline is August 28, 2018. Click [here](#) for more information.
- **National Science Foundation (NSF):** NSF's Directorate for Education & Human Resources is inviting grant proposals for the EHR Core Research (ECR) program to fund fundamental research on: human learning in STEM; learning in STEM learning environments, STEM workforce development, and research on broadening participation in STEM. Full proposal deadline is September 13, 2018. Click [here](#) for more information.

- ▶ **National Science Foundation (NSF):** NSF's Research on Learning in Formal and Informal Settings program is inviting grant proposals for the Advancing Informal STEM Learning (AISL) program to advance new approaches to and evidence-based understanding of the design and development of STEM learning opportunities for the public in informal environments; provide multiple pathways for broadening access to and engagement in STEM learning experiences; advance innovative research on and assessment of STEM learning in informal environments; and engage the public of all ages in learning STEM in informal environments. Application deadline is November 8, 2018. Click [here](#) for more information.
- ▶ **National Science Foundation (NSF):** NSF's Directorate for Education & Human Resources is inviting grant proposals for the Discovery Research PreK-12 program that address immediate challenges facing preK-12 STEM education as well as those that anticipate radically different structures and functions of preK-12 teaching and learning. Full proposal deadline is November 14, 2018. Click [here](#) for more information.

From Education Week: Measuring new science standards is hard. These projects aim to change that.

About 18 states have adopted the Next Generation Science Standards. And although these shared science expectations have been out for about five years, testing models that fully capture students' grasp of them have lagged far behind. Read more [here](#).

AGI POLICY ACTIVITIES

AGI's Geoscience Policy program supports well-informed public policy and decision making by providing information and facilitating dialogue between the geoscience community and federal decision makers.

AGI works closely with its member societies to ensure that the geosciences are strongly represented in the federal policy-making process. AGI's Geoscience Policy program tracks federal policies and publishes the Geoscience Policy [Monthly Reviews](#) and [Annual Review](#) highlighting key legislation and executive actions. AGI, often in collaboration with other societies, submits [testimony](#) and [letters](#) to Congress and the Administration regarding geoscience funding, legislation, federal actions, and the importance of the geosciences to societal issues.

AGI encourages geoscientists to engage in the federal policy process as individuals or through their scientific or professional organizations, and invites participation in the next [Geosciences Congressional Visits Day](#) in Washington, D.C. on September 12 to 13, 2018. The deadline to apply is July 31, 2018. Please see our [Communicating with Congress](#) webpage for more resources to engage with federal policy makers.

We hope that you will find this first edition of the AGI Federal Geoscience Education Policy Review useful and informative, and we appreciate any feedback to help us improve future Federal Geoscience Education Policy Reviews. Please send your comments to govt@americangeosciences.org.



AGI/Chris Keane

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AGI is a not-for-profit 501(c)(3) organization dedicated to serving the geoscience community and addressing the needs of society. AGI headquarters are in Alexandria, Virginia.

The American Geosciences Institute represents and serves the geoscience community by providing collaborative leadership and information to connect Earth, science, and people.

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