

THE STATE UNIVERSITY SYSTEM OF FLORIDA

WASHINGTON E-UPDATE

Prepared by Cavarocchi-Ruscio-Dennis Associates, Editor -- Brent Jaquet
Contributors -- Dom Ruscio, Tiffany Kaszuba, Annie Baron, Michaela Hollis, Michael Rinderman

December 2017

Budget and Appropriations Update –While passing tax cut legislation before the end of the year is the top priority in Congress these days, congressional leaders are also under heavy pressure to complete work on the 12 fiscal year 2018 appropriations bills necessary to avoid a government shutdown.

As things now stand, government agencies are operating under a continuing resolution set to expire next Friday, December 8. GOP leaders have been quietly negotiating with their Democratic counterparts in hopes of delivering on the large defense increase they want this year as well as avoiding deep cuts in other programs. But unless a budget deal is struck soon, lawmakers said it will be almost impossible to finish work on the 12 spending bills before the current continuing resolution expires.

House leaders have recently signaled their intention to attempt to pass a Continuing Resolution through December 22. It is unclear if Democrats in the Senate will agree to vote for the extension without a permanent legislative DACA fix included.

House Republicans are pushing for an increase in the Budget Control Act's (BCA) defense cap to permit \$70 billion or more in extra Pentagon spending. But Democrats want that increase paired with more money for nondefense programs that have been cut or frozen over the past several years. Democrats also want to make sure no money is included for building a border wall.

While GOP leaders would prefer to finish work on appropriations before Christmas, members of the conservative-leaning House Freedom Caucus say they would prefer extending the continuing resolution through January.

Further complicating the process is another disaster relief bill waiting in the wings as well as an extension of the Children's Health Insurance Program and the need to increase the nation's debt ceiling by the end of January.

Unless a deal is reached, BCA spending caps currently in place would require cuts to discretionary spending of \$5 billion—including \$2 billion from defense and \$3 billion from nondefense programs.

House and Senate tax bills vary on approach to higher education

The GOP effort to revamp the nation's tax system continued on a rapid pace with the Senate moving the bill out of the Budget Committee and to the floor this past week.

Following Senate approval of its bill, the two chamber's bills will next be considered by a joint House-Senate conference committee to iron out differences and produce a final product. Just as with the initial legislation, special budget rules being employed would allow eventual final passage in the Senate by only a simple majority, rather than the normal 60 votes.

House bill

On November 17 the House passed its version of H.R. 1, the Tax Cuts and Jobs Act by a vote of 227 to 205 with 13 Republicans joining all Democrats to oppose the measure. For higher education the House bill would make many changes to tax law that would affect students and institutions. A section-by-section summary of H.R. 1, the "Tax Cuts and Jobs Act," can be found [here](#) and the bill text [here](#).

All of the leading higher education and scientific organizations issued statements opposing some of the key provisions:

- Sec. 1002: Changes to the standardized deduction, expected to reduce charitable contributions;
- Sec. 1002: Repeal of Lifetime Learning Credit;
- Sec. 1204: Repeal of the Student Loan Interest Deduction;
- Sec. 117(d): Repeal of the qualified tuition reduction;
- Sec. 127: Repeal of educational assistance programs;
- Sec. 1303: Changes to the state and local tax (SALT) deduction, expected to reduce state budgets and, in turn, funding for public higher education;
- Sec. 3601: Termination of private activity bonds; and,
- Sec. 5103: Creation of a new excise tax on endowments at private colleges and universities.

Senate bill

The Senate Finance Committee approved its version of the bill on November 11 and sent it on to the Budget Committee where it passed on a party line vote November 28. Subsequently, further changes were made to the bill to satisfy various members who won changes.

A section-by-section summary is available [here](#). To read the text, [click here](#). For higher education, the Senate version retains:

- the American Opportunity Tax Credit (AOTC);
- the Lifetime Learning Credit (LLC) and Hope Scholarship Credit;
- the Student Loan Interest Deduction;
- Qualified Tuition Reductions (Sec. 117 (d) and 117 (d)(5)) for campus employees and graduate students; and
- employer-provided education assistance (Sec. 127).

However, the Senate bill also would:

- Increase in the standard deduction and loss of charitable deduction;

- Repeal the deduction for personal exemptions, including college-age dependents;
- Repeal of state and local tax (SALT) deduction;
- Repeal advance refunding bonds; and
- Create a new excise tax on endowments at private colleges and universities.

Higher Education Act draft released in the House

The House Education and Workforce Committee released its draft legislation for the next reauthorization of the Higher Education Act December 1.

The bill is titled the Promoting Real Opportunity, Success and Prosperity Through Education Reform (PROSPER) Act. Below are links to the bill text, and Committee summary and fact sheet.

The bill has wide ranging proposals addressing campus speech, sexual assault, accreditation, HBCUs and minority-serving institutions. It would roll back and prohibit gainful employment and state authorization regulations and would require online programs to only be authorized in states where the institution has a physical presence.

Pell Grants would be reauthorized and payments would be made weekly or monthly similar to a paycheck. Student loan programs would be combined into a “One Loan Program” with a cap on the total amount that could be borrowed. “Skin in the game” provisions are included requiring institutions to repay student loan defaults under certain circumstances.

The FAFSA would be streamlined under the proposed bill. Public service loan forgiveness programs would end but current participants would be grandfathered and covered. Work-study would receive additional resources and a requirement limiting the amount of participation at non-campus private businesses to 25 percent of funding would be removed. Competency-based education programs would be encouraged with a path is established for federal student aid eligibility.

Loan repayment options would be consolidated to one standard 10-year plan and one income-based plan. The bill calls for schools to have a data dashboard with greater data availability on average student debt, salaries and other outcomes for use by prospective students. Financial counseling would be required for all recipients of federal financial aid.

The Senate HELP Committee is currently writing its version of an HEA reauthorization and Chairman Lamar Alexander said this week that he plans to make it his first order of business in January. To read the House bill or summaries click on the links below.

[Fact Sheet](#)
[Bill Summary](#)
[Bill Text](#)

Education Department to streamline financial aid “environment”

The Education Department announced Nov. 29 that it will make major changes to the financial aid process in the coming year, creating a “Next Generation Financial Services Environment,” including introducing a mobile app to be used for applying for financial aid.

Wayne Johnson, COO of the Office of Federal Student Aid (FSA), said the new approach is intended to modernize the technology and operational components supporting federal student aid programs from application through repayment. He indicated that the primary goal of the Next Gen environment, and particularly the Next Gen Processing and Servicing segment, is to improve the customer experience, taxpayer return on investment, and the operational flexibility and adaptability of FSA.

To address future loan servicing needs, Department staff are researching how world-class financial services organizations such as IBM, Amazon and Visa design and operationalize their customer service engagement practices, as well as web and mobile, middleware, data processing, analytics, storage and hosting capabilities. Through this market research, the Department plans to refine its strategy for making the changes. To read the press release, [click here](#).

The Department lists these upcoming highlights of the move:

- “Spring 2018—FSA will launch its mobile platform to allow students and parents to complete and submit the *Free Application for Federal Student Aid* (FAFSA[®]) form on a mobile device
- Fall 2018—fafs.gov will be integrated into StudentAid.gov, making it easier than ever to apply for financial aid directly from FSA’s leading website; this integration also will let FAFSA applicants switch seamlessly between mobile and web while filling out the application, enabling students and parents to apply for financial aid wherever they are and on a device of their choosing
- TBD—FSA eventually will consolidate all of its customer-facing websites into a single, user-friendly hub to complement the new mobile platform and give students, parents, and borrowers a seamless experience from application through repayment
- Ongoing—FSA is researching dozens of world-class financial services customer experiences from web and mobile to middleware, data processing, analytics, storage, and hosting capabilities; through this market research, FSA is refining its strategy to develop and implement a new loan servicing platform to benefit *federal student loan* borrowers.”

NASA nominee approved by Senate committee despite Democrats' objections

The Senate Commerce, Science, and Transportation Committee approved President Trump's nomination of Rep. Jim Bridenstine (R-OK) for NASA administrator November 8, sending his name to the Senate over Democratic objections on a party-line 14-to-13 vote.

The vote followed a contentious confirmation hearing the previous week with Democrats led by Florida Senator Bill Nelson questioning the Congressman's qualifications for the position. Nelson said Bridenstine, a former Navy pilot, lacks the technical and administrative experience "to make the complex and nuanced engineering, safety and budgetary decisions for which the head of NASA must be accountable."

"The NASA administrator should be a consummate space professional who is technically and scientifically competent and is a skilled executive. More importantly, the administrator must be a leader who has the ability to unite scientists, engineers, commercial space interests, policymakers, the Congress, and the public on a shared vision for future space exploration," Nelson said. The Senator questioned his ability to make important safety decisions at the agency.

Other Democratic members of the Committee pressed the nominee on his support for earth science, his views on climate science, and how he would work to protect NASA from political interference and ensure scientific freedom for its staff. To view the webcast, [click here](#).

Rubio reintroduces bill on providing better data to students

Florida Senator Rubio and other cosponsors reintroduced their bill from previous Congresses on November 29 to provide prospective higher education students and families with information on costs.

The bipartisan "Student Right to Know Before You Go Act" would make data available to prospective college students about schools' graduation rates, debt levels, how much graduates can expect to earn and other education and workforce-related measures of success. Under the bill, these outcome measures would be available and broken down by individual institution and program of study.

One of the key changes to the new bill would help protect student privacy by requiring the use of privacy-enhancing technologies that encrypt and protect the data that are used to produce this consumer information. The updated bill requires the use of secure multiparty computation (MPC), an advanced encryption technique, to generate statistical data based on student information from colleges and universities as well as loan and income information from government agencies such as the Internal Revenue Service and Department of Education. The process ensures the protection of the

underlying data, so no entity is forced to “give up” sensitive information in a form that is accessible to others, according to the sponsors.

A companion bill was also introduced the same day in the House. The bill text can be found [here](#). A summary and chart of the bill’s key provisions can be found [here](#). A section-by-section summary of the bill can be found [here](#).

‘All of Us’ program at NIH partners for outreach

Fourteen national community groups and health care provider associations have partnered with the *All of Us* Research Program, part of the National Institutes of Health, to help raise awareness about the program — an effort to engage 1 million or more volunteers across the country to build one of the largest, most diverse datasets of its kind for health research.

This inaugural group of organizations will help educate their communities about the benefits of participation in this landmark project to accelerate breakthroughs in precision medicine.

All of Us participants will share information over many years in a variety of ways, through surveys, electronic health records, physical measurements, blood and urine samples and wearable technologies. Researchers of all types, from citizen scientists to investigators in academia and industry, may request free access to the data, which will be de-identified to protect participant privacy. Their analyses may yield new insights about how individual differences affect health and disease, potentially leading to more tailored treatments and prevention strategies in the future. To read more, [click here](#).

Walker named DARPA director

Steven H. Walker was appointed director of the Defense Advanced Research Projects Agency (DARPA) on November 8. A former DARPA program manager, deputy office director, and office director, Walker has worked the agency for 13 years and has been a key figure in advancing the science and technologies associated with hypersonic flight and rapid access to space.

Having served as DARPA deputy director since October 2012, Walker has been acting director since January 2017.

He began his engineering career in the Air Force Research Laboratory's (AFRL) Air Vehicles Directorate in Dayton, Ohio, developing thrust vectoring concepts and aero-acoustic prediction methodologies associated with airplane exhaust systems. He subsequently served as program manager of the Unsteady Aerodynamics and Hypersonics Research Program at AFRL's Air Force Office of Scientific Research in

Arlington, Va., and special assistant to the director of Defense Research and Engineering at the Pentagon. At DARPA, Walker previously served in the Agency's Tactical Technology Office in various programmatic and leadership positions, including office director. As a program manager with TTO, he initiated the \$500 million DARPA/Air Force Falcon program to develop and flight-test technologies for long-duration hypersonic flight and affordable, responsive space lift.

Prior to his August 2012 return to DARPA, Walker served as Deputy Assistant Secretary of the Air Force for Science, Technology and Engineering in the Office of the Assistant Secretary of the Air Force for Acquisition, Washington, D.C. He was responsible for developing the technology investment strategy for the Air Force's annual \$2 billion science and technology program and for providing functional management for more than 14,000 military and civilian scientists and engineers. He provided annual testimony to Congress, technical advice and counsel to the Air Force Acquisition Executive, and Air-Force-relevant science and technology recommendations to the Office of the Secretary of Defense.

Walker holds a Bachelor of Science in aerospace engineering from the University of Notre Dame, a Master of Science in mechanical engineering from the University of Dayton, and a Doctorate of Philosophy in aerospace engineering from the University of Notre Dame.

NIH making grant progress reports accessible to the public

NIH announced that as of October 1 the agency is making information from grant progress reports available to the public for the first time.

With the policy change, project outcomes in the interim or final Research Performance Progress Report for all NIH grants will be made available to the general public via NIH's Research Portfolio Online Reporting Tool ([RePORTER](#)).

In a November 16 [blog post](#) about the new procedure, NIH Deputy Director for Extramural Research Michael Lauer encourage grantees to make the outcome descriptions easily understandable and wrote "Reviewing reported outcomes is part of our stewardship of the public's investment in research. Publicly posting grant outcomes provides transparency and lets the taxpayer understand what they have paid for."

NOAA nominee has Senate confirmation hearing

President Trump's nomination of AccuWeather CEO Barry Myers to serve as Under Secretary of Commerce for Oceans and Atmosphere and head NOAA was reviewed November 29 in a hearing by the Senate Commerce, Science, and Transportation Committee.

Myers identified his top three priorities for the position as 1) addressing fisheries trade imbalance, 2) ensuring American weather model superiority, and 3) implementing the recently enacted Weather Research and Forecasting Improvement Act.

While not a scientist but rather a businessman and lawyer, Myers said his long time work in the weather forecasting business has given him a deep immersion in science. To view the hearing, [click here](#).

Geological mapping bill covered at hearing

A bill to reauthorize the US Geological Survey's mapping programs was reviewed at a hearing November 30 by the Energy and Mineral Resources Subcommittee of the House Natural Resources Committee.

Programs covered under the Act's National Cooperative Geologic Mapping Program include:

- FEDMAP - A federal mapping effort by the U.S. Geological Survey.
- STATEMAP - A state mapping effort by state geologic surveys.
- EDMAP - University programs that support geologic mapping projects for undergraduate and graduate students.

The National Geologic Mapping Act Reauthorization, H.R. 4033, would extend programs through Fiscal Year 2023. To read the bill, [click here](#). To read the hearing memo and section by section analysis of the bill, [click here](#).

Senate hearing review gene editing technology

The Senate Health, Education, Labor, and Pensions (HELP) Committee held a full committee hearing November 14 to examine gene editing technology and its potential to answer challenging research questions and treat serious diseases.

Chairman Lamar Alexander brought the hearing to order addressing CRISPR, a relatively new technology designed to edit genes. He quoted Eric Lander, a geneticist, mathematician, and leader of the Human Genome Project, who said, "It's hard to recall a revolution that has swept biology more swiftly than CRISPR." Chairman Alexander compared CRISPR's feature of homology-directed repair to that of cutting and pasting in a Word document as CRISPR is used to search for disease-causing genes and then use molecules to insert a new gene or delete or edit the mutated gene. He also elaborated on the benefits of CRISPR. He said that CRISPR, although not the only gene editing technology, it is the most exciting and popular within the medical research community because the technology is less expensive, more accessible, and more precise than other gene editing technology.

Chairman Alexander provided examples of CRISPRs extensive potential capabilities, such as correcting the gene that causes sickle cell anemia and it's potential to improve

the amount of time immune cells are active in fighting tumors. For agricultural purposes, he explained that CRISPR could also assist in the creation of disease-resistant wheat and rice while also creating crops with increased nutritional value.

Chairman Alexander raised awareness to the ethical debate of CRISPR, which includes concerns of permanent changes in the human genome and the idea that changes could be made in the embryo to design babies genetically. He also said there are national security concerns regarding the potential to create biological weapons.

Senator Patty Murray thanked all of those in attendance, including the witnesses, which included Matthew Porteus, Associate Professor of Pediatrics at Stanford University, Katrine Bosley, CEO and President of Editas Medicine, and Jeffrey Khan, Director of Johns Hopkins Berman Institute of Bioethics at Johns Hopkins School of Public Health.

Proteus testified on behalf of his research for potential cures for diseases such as sickle cell anemia, cystic fibrosis, HIV, and Huntington's disease. Currently, in his lab, he explained that using the CRISPR-Cas9 technology they are attempting to treat sickle cell anemia, which they estimate to affect 100,000 Americans. He elaborated that using homology-directed repair, referred to earlier as cutting and pasting; they can collect blood stem cells from patients and have found success in correcting approximately 50-70% of all cells. They hope to gain support from the FDA and participate in clinical trials by 2019. He added that his lab believes that the current FDA structure and regulatory system is adequate in managing the assessment of the science and ethics that is gene editing of cells.

Bosley spoke on behalf of Editas Medicine and their hope to use CRISPR technology to develop medicine to potentially end genetic diseases including, but not limited to, Duchenne's muscular dystrophy, sickle cell anemia, cystic fibrosis, and Usher syndrome. She said that Editas' most advanced CRISPR research program is focused on Leber congenital amaurosis-10 (LCA10), which causes blindness in children that lasts throughout the rest of their lives. She said their goal for this program is to file a drug application with the FDA by 2018.

In response to previously mentioned ethical concerns, Ms. Bosley commented that, to her knowledge, researchers are working with gene editing technology to develop medicine to make non-heritable gene edits to cells. She conveyed that this means that the gene edits couldn't be passed on to future generations.

Bosley commented that CRISPR technology is not only required for FDA review but it is also subject to public review by the NIH's Recombinant DNA Advisory Committee (RAC). She said the FDA had overseen gene therapy developments in conjunction with the RAC, since the 1990s. Like Dr. Proteus, Ms. Bosley also believes that the current regulatory framework is adequate in overseeing biomedical research.

The third witness, Kahn, spoke at length on the topics of policy history in science and biomedical research, existing ethical frameworks and oversight, and ethical issues form the use of gene editing technologies in humans and considerations for future oversight and regulations. Specifically, regarding the ethical issues posed by gene editing

technology, he said that not only are there possibilities of heritable genetic modifications, as mentioned in the earlier discussion, but there are also possibilities of challenges regarding regulatory oversight and the possibility of expanded use of therapies beyond those which have already been approved. Dr. Khan conveyed that work must be done to identify gaps in oversight procedures and he alluded to the need for appropriately crafted guidelines for gene editing technology.

Following witness testimonies, Chairman Alexander, Senator Murray, and several other committee members, such as Senator Susan Collins, Senator Tim Scott, Senator Maggie Hassan, Senator Elizabeth Warren, Senator Tim Kaine, posed questions to the witnesses regarding the advantages and challenges of CRISPR as well as their outlook on future regulations and guidelines.

To view the hearing webcast, click [here](#).

Hearing examines simplifying the FAFSA

The Senate HELP committee held a hearing on November 28 to discuss the reauthorization of the Higher Education Act. Lawmakers tackled the complexities of the Free Application for Federal Student Aid (FAFSA) by addressing the challenges it posed to homeless students. The committee also discussed the possibility of reducing the number of questions on the application to lighten the burden of applying for federal student aid.

Senator Lamar Alexander, the chairman of the committee, stated: “My central focus will be to make it simpler and easier for students to apply for federal aid and to pay their loans back and easier for college administrators to cut through the jungle of bureaucratic red tape.” Senator Lamar Alexander is confident the number of questions can be reduced from 108 to 25 by using tax information already given to the federal government for the FAFSA application. While having fewer items on the questionnaire is convenient for students and parents, some are worried that might compromise the purpose of the form.

Justin Draeger who serves as the president of the National Association of Student Financial Aid Administrators told the senators, “The unifying concept of the FAFSA is that all these different grant providers can try to rely on one form, so we don’t have fragmented, multiple forms throughout the process.” Draeger believes that it is the verification process that poses a real challenge to both schools and students.

Nancy McCallin, President of the Colorado Community College System of Denver, informed the committee that in her college financial aid administrators devoted 25% of their time on verification paperwork instead of counseling students. McCallin also mentioned more than half the students never complete the verification process. As a result, several students miss out on federal Pell grants, low-interest federal student loans, and money to help pay for college.

Echoing Senator Alexander's suggestion, Draeger said the National Association of Student Financial Aid Administrators would have to depend on information that's already been verified by the government such as tax return to improve the FAFSA.

Judith Scott-Clayton, an associate professor of economics and education at Teachers College, Columbia University, said many of the questions are not crucial to the Pell grant application and eliminating them will have little effect on the amount of money offered to students.

In a moving testimony, Elaine Williams shared her experience with the FAFSA application to illustrate the difficulty of the application. She grew up in poverty with an absent mother who struggled with mental illness and drug addiction. As a child, she went back in forth between relatives and grandparents, until she found herself homeless at the age eighteen.

As a first-generation college student, Williams considered the FAFSA the biggest hurdle in her college career. Without a parent in the picture, she could not obtain certain loans. She applied for federal financial aid as an unaccompanied youth with the help of a counselor of GRASP; a non-profit, charitable, college-access organization that assists students and families in obtaining funding for post-secondary education. Williams explained by the time she got her paper for the verification process, she had missed the opportunity to apply for grants.

Despite her financial challenges Williams managed to graduate from college with \$50,000 of student debt. Currently, she is a shelter diversion specialist at the YWCA in Richmond, Virginia where she helps students who face similar circumstances as her.

Kim Rueben explained that streamlining the FAFSA application is especially important for low-income students like Elaine Williams. They are least likely to attend college and could benefit the most from the improvement of the student aid application system. She suggested a number of steps to improve the system, found [here](#).

According to Senator Patty Murray, simplifying FAFSA is the first step to opening the doors to allow a student of nontraditional background such as homelessness to take advantage of financial aid. Senator Patty Murray would like to further tackle student barriers by addressing tuition cost, holding programs accountable and providing a safe environment free of sexual assault.

Highlights of competitive grant opportunities at federal agencies

Agency: DHS
Office of Procurement Operations

Program: Nuclear Forensics Research Award

Description: The National Nuclear Forensics Expertise Development Program works to build a nuclear forensics workforce of recognized technical experts and leaders through fostering scholastic and research collaboration between and among academia, the national and defense laboratories, and the National Technical Nuclear Forensics Interagency

Due Date: 1/31/2018

Award Ceiling: \$250,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=297377>

Contact: Marsha.Mathis@hq.dhs.gov

Agency: DoD

Dept. of the Army

Program: DoD Psychological Health and Traumatic Brain Injury Peer Support Program Translational Research Award

Description: This funding opportunity seeks applications to support examinations of efficacy and effectiveness of peer-to-peer support interventions to translate and integrate content into the everyday routines of SMs to enhance psychological health readiness and mitigate negative behavioral health issues including suicide behaviors.

Due Date: 1/19/2018

Funding: \$6,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298532>

Contact: help@eBRAP.org

Agency: DoD

Dept. of the Army -- USAMRAA

Program: DoD Accelerating Innovation in Military Medicine Research Award

Description: The Accelerating Innovation in Military Medicine Research Award is intended to support highly creative and conceptually innovative high-risk research with the potential to accelerate critical discoveries or major advancements that will significantly impact military health and medicine.

Due Date: 2/9/2018

Funding: \$3,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298930>

Contact: support@grants.gov

Agency: DoD

Dept. of the Army -- USAMRAA

Program: DoD Psychological Health and Traumatic Brain Injury Peer Support Program Translational Research Award

Description: This funding opportunity seeks applications to support examinations of efficacy and effectiveness of peer-to-peer support interventions to translate and integrate content into the everyday routines of SMs to enhance psychological health readiness and mitigate negative behavioral health issues including suicide behaviors.

Due Date: 1/19/2018

Funding: \$6,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298532>

Contact: support@grants.gov

Agency: DoD

Air Force Office of Scientific Research

Program: Research Interests of the Air Force Office of Scientific Research

Description: AFOSR plans, coordinates, and executes the Air Force Research Laboratory's basic research program in response to technical guidance from AFRL and requirements of the Air Force. The focus of AFOSR is on research areas that offer significant and comprehensive benefits to our national war fighting and peacekeeping capabilities.

Due Date: 11/7/2017

Award Ceiling: \$80,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298498>

Contact: support@grants.gov

Agency: DoD
Air Force Office of Scientific Research

Program: Department of Defense Defense Enterprise Science Initiative

Description: The Defense Enterprise Science Initiative is a pilot program that supports use-inspired basic research performed by university-industry teams.

Due Date: 2/28/2018

Award Ceiling: \$6,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=299112>

Contact: support@grants.gov

Agency: DOE
Golden Field Office

Program: Innovative Solutions for Fish Passage at Hydropower Dams

Description: The Hydropower Program is looking to fund early-stage research into innovative fish passage solutions to effectively provide volitional upstream fish passage while reducing both construction and operational costs compared to existing methods.

Due Date: 12/7/2017

Funding: \$2,500,000 **Award Ceiling:** \$800,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=297639>

Contact: jane.sanders@ee.doe.gov

Agency: DOE
Golden Field Office

Program: Generation 3 Concentrating Solar Power Systems

Description: This FOA intends to develop integrated thermal system solutions to overcome the temperature limitations of current CSP systems, while lowering capital costs by enabling the use of advanced turbines and achieving a higher overall system efficiency in converting solar thermal energy into electricity.

Due Date: 1/19/2018

Funding: \$62,000,000 **Award Ceiling:** \$35,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=297296>
Contact: gen3csp@ee.doe.gov

Agency: DOE
Advanced Research Projects Agency Energy

Program: Integrate FOA

Description: This is a revised FOA for the Innovative natural gas technologies for efficiency gain in reliable and affordable thermochemical electricity generation program (INTEGRATE).

Due Date: 12/18/2017

Funding: \$20,000,000 **Award Ceiling:** \$4,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=295894>

Contact: ARPA-E-CO@HQ.DOE.GOV

Agency: DOE
National Energy Technology Laboratory

Program: Medium/Heavy-Duty, On-Road Natural Gas Engine R&D

Description: The purpose of this Announcement is to seek cost-shared projects for the research of medium and heavy-duty on-road natural gas engines.

Due Date: 1/11/2018

Funding: \$4,000,000 **Award Ceiling:** \$4,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=297918>

Contact: sheldon.funk@netl.doe.gov

Agency: DOE
National Energy Technology Laboratory

Program: Energy Efficiency Research and Development for Fluid-Power Systems In Off-Road Vehicles

Description: The objective of this FOA is to research technologies that can improve the energy efficiency of fluid power systems for commercial off-road vehicles .

Due Date: 1/18/2018
Funding: \$3,000,000 **Award Ceiling:** \$1,500,000
Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298005>
Contact: anne.cary@netl.doe.gov

Agency: DOE
Office of Science

Program: Energy Frontier Research Centers

Description: The Department of Energy's Office of Basic Energy Sciences announces a re-competition of the Energy Frontier Research Centers and encourages both new and renewal applications.

Due Date: 4/11/2018

Funding: \$396,000,000 **Award Ceiling:** \$16,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=299055>
Contact: support@grants.gov

Agency: DOE
Office of Science

Program: Science and Technology and other Research and Development

Description: The Environmental System Science program, the Terrestrial Ecosystem Science activity seeks to improve the understanding and representation of terrestrial ecosystems in ways that advance Earth system model parameterizations and capabilities.

Due Date: 3/1/2018

Funding: \$5,000,000 **Award Ceiling:** \$1,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298742>
Contact: support@grants.gov

Agency: DOE
Office of Science

Program: Science and Technology and other Research and Development

Description: The agency is interested in research grant applications for observational, data analysis, and/or modeling studies that use observations supported by CESD, including the Atmospheric Radiation Measurement scientific user facility and the ASR program, to improve understanding and model representation of specified aerosol processes, high-latitude atmospheric processes, and ice cloud processes.

Due Date: 2/28/2018

Funding: \$8,000,000 **Award Ceiling:** \$700,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298743>

Contact: support@grants.gov

Agency: NASA

NASA Headquarters

Program: ROSBio Appendix G: Solicitation of Proposals for Flight and Ground Space Biology Research

Description: The program solicits proposals that will increase NASA's understanding of how living systems acclimate to spaceflight to support human space exploration.

Due Date: 2/2/2018

Award Ceiling: \$750,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298366>

Contact: dtomko@nasa.gov

Agency: NIH

Department of Health and Human Services

Program: Self-Management for Health in Chronic Conditions

Description: The purpose of this initiative is to support research in self-management focused across conditions.

Due Date: 1/7/2018

Award Ceiling: \$300,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=266009>

Contact: support@grants.gov

Agency: NIH

Program: NIH Research Project Grant

Description: The NIH Research Project Grant supports a discrete, specified, circumscribed project in areas representing the specific interests and competencies of the investigator. This Parent Funding Opportunity Announcement requires that at least 1 clinical trial be proposed. The proposed project must be related to the programmatic interests of one or more of the participating NIH Institutes and Centers based on their scientific missions.

Due Date: 1/7/2021

Funding: See announcement

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298367>

Contact: FBOWebmaster@OD.NIH.GOV

Agency: NIH

Department of Health and Human Services

Program: Cancer Research Education Grants Program - Research Experiences

Description: The NIH Research Education Program supports research education activities in the mission areas of the NIH. The over-arching goal of this NCI R25 program is to support educational activities that complement and/or enhance the training of a workforce to meet the nations biomedical, behavioral and clinical research needs.

Due Date: 1/7/2018

Award Ceiling: \$300,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=275350>

Contact: support@grants.gov

Agency: NIH

Department of Health and Human Services

Program: Role of Peripheral Proteostasis on Brain Aging and Alzheimer's Disease

Description: The National Institute on Aging solicits research projects that would advance our understanding of how protein homeostasis in peripheral tissues affects brain aging, leading to the development of Alzheimers Disease .

Due Date: 2/9/2018

Funding: \$5,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298139>

Contact: GrantsInfo@nih.gov

Agency: NIH

Department of Health and Human Services

Program: Pathogenesis of Age-Related HIV Neurodegeneration

Description: NeuroHIV is at an inflection point, with an urgent need to understand the mechanisms that cause and modulate the CNS impairment in the era of antiretroviral therapies.

Due Date: 2/9/2018

Funding: See announcement

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298660>

Contact: GrantsInfo@nih.gov

Agency: NIH

Department of Health and Human Services

Program: Mechanisms of Cancer Drug Resistance and Sensitivity: Coordinating Center

Description: The purpose of this Funding Opportunity Announcement is to create a U24 Coordinating Center that will integrate and facilitate trans-disciplinary research across the Drug Resistance and Sensitivity Centers.

Due Date: 1/5/2018

Funding: See announcement **Award Ceiling:** \$350,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298052>

Contact: support@grants.gov

Agency: NIH
Department of Health and Human Services

Program: NIDCR Award for Sustaining Outstanding Achievement in Research

Description: The objective of the the National Institute of Dental and Craniofacial Research Award for Sustaining Outstanding Achievement in Research is to provide longer-term support to NIDCR-funded investigators, who are in their mid-career stage, and have outstanding records of research productivity, mentorship and professional service to the research community.

Due Date: 2/9/2018

Funding: \$2,000,000 **Award Ceiling:** \$650,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298265>

Contact: GrantsInfo@nih.gov

Agency: NIH
Department of Health and Human Services

Program: Multidisciplinary Urologic Research Career Development Program

Description: The purpose of this Announcement (FOA) is to invite applications to support institutional career development programs in urological research that will assist MDs, PhDs, and MD/PhDs with an interest in benign urological disease or urological research to develop the skills necessary to initiate and sustain an independent research career in urological research.

Due Date: 2/13/2018

Funding: \$2,000,000 **Award Ceiling:** \$600,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298234>

Contact: FBOWebmaster@OD.NIH.GOV

Agency: NIH

Program: Reducing Disparities in Vaccination Coverage by Poverty Status Among Young Children: An Assessment of Parental Experience, Barriers, and Challenges with Accessing Quality Vaccination Services

Description: The purpose of this Opportunity is to gain a better understanding from the parents/guardians of young children about the factors contributing to vaccination coverage disparities observed between young children living below the poverty level and those living at or above the poverty level.

Due Date: 01/18/2018

Funding: \$600,000 **Award Ceiling:** \$300,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=294858>

Contact: DLoveys@cdc.gov

Agency: NIH

Program: Mechanisms of Disparities for HIV- Related Co-morbidities in Health Disparity Populations (R01-Clinical Trial Not Allowed)

Description: The purpose of this initiative is to support research to determine the underlying mechanisms of how HIV related co-morbidities may influence the complexity of HIV/AIDS disease progression, quality of life and overall health outcomes among HIV positive individuals from health disparity populations.

Due Date: 2/21/2018

Award Ceiling: \$450,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298444>

Contact: FBOWebmaster@OD.NIH.GOV

Agency: NIH

Program: International Research in Infectious Diseases, including AIDS (R01)

Description: This Funding Opportunity Announcement encourages applications from organizations/institutions in eligible foreign countries that propose research related to infectious diseases that are of interest/importance to that country.

Funding: See announcement

Due Date: 8/22/2019

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=291474>

Contact: support@grants.gov

Agency: National Science Foundation

Program: Secure and Trustworthy Cyberspace

Description: The goals of the Secure and Trustworthy Cyberspace program are aligned with the National Privacy Research Strategy to protect and preserve the growing social and economic benefits of cyber systems while ensuring security and privacy. The Secure and Trustworthy Cyberspace program welcomes proposals that address cybersecurity and privacy, and draw on expertise in one or more of these areas: computing, communication and information sciences; engineering; economics; education; mathematics; statistics; and social and behavioral sciences. Proposals that advance the field of cybersecurity and privacy within a single discipline or interdisciplinary efforts that span multiple disciplines are both encouraged.

Due Date: 12/13/2017

Funding: \$68,000,000 **Award Ceiling:** \$10,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=295307>

Contact: support@grants.gov

Agency: National Science Foundation

Program: NSF/CASIS Collaboration on Tissue Engineering on the International Space Station to Benefit Life on Earth

Description: The Division of Chemical, Bioengineering and Environmental Transport in the Engineering Directorate of the National Science Foundation is partnering with The Center for the Advancement of Science in Space to solicit research projects in the general field of tissue engineering that can utilize the International Space Station National Lab to conduct research that will benefit life on Earth. U.S. entities including academic institutions, non-profit independent research labs and academic-commercial teams are eligible to submit proposals.

Due Date: 2/12/2018

Funding: \$1,800,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298507>

Contact: support@grants.gov

Agency: National Science Foundation

Program: Major Research Instrumentation Program

Description: The Major Research Instrumentation Program serves to increase access to multi-user scientific and engineering instrumentation for research and research training in our Nation's institutions of higher education and not-for-profit scientific/engineering research organizations

Due Date: 2/5/2018

Funding: \$75,000,000 **Award Ceiling:** \$4,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298447>

Contact: support@grants.gov

Agency: National Science Foundation

Program: Division of Physics: Investigator-Initiated Research Projects

Description: The Division of Physics supports physics research and the preparation of future scientists in the nations colleges and universities across a broad range of physics disciplines that span scales of space and time from the largest to the smallest and the oldest to the youngest.

Due Date: 12/7/2017

Funding: \$90,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=294065>

Contact: support@grants.gov

Agency: National Institutes of Health

Program: NIMH Exploratory/Developmental Research Grant

Description: The NIMH Exploratory/Developmental Grant program supports exploratory and high-risk research projects that fall within the NIMH mission by providing support for the early and conceptual stages of these projects.

Due Date: 1/7/2021

Award Ceiling: \$200,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298484>

Contact: support@grants.gov

Agency: National Institutes of Health

Program: Academic Research Enhancement Award

Description: The purpose of the Academic Research Enhancement Award program is to stimulate research in educational institutions that provide baccalaureate or advanced degrees for a significant number of the Nation's research scientists, but that have not been major recipients of NIH support.

Due Date: 1/7/2021

Award Ceiling: \$300,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298380>

Contact: support@grants.gov

Agency: National Institutes of Health

Program: Safety and Outcome Measures of Pain Medications Used in Children and Pregnant Women

Description: The purpose of this funding opportunity announcement is to promote preclinical, translational, clinical and epidemiological research in pain medications use in children or in pregnant women to fill knowledge gaps in safe use of the pain medications in these special populations; and develop effective instruments or approaches to assess and evaluate maternal and child outcomes of pain medication treatments.

Due Date: 1/7/2020

Award Ceiling: See announcement

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298361>

Contact: support@grants.gov

Agency: National Institutes of Health

Program: Exploratory/Developmental Clinical Research Grants in

Description: This Funding Opportunity Announcement encourages research grant applications from institutions/organizations that propose to conduct exploratory/developmental clinical studies that will accelerate the

development of effective interventions for prevention or treatment of overweight or obesity in adults and/or children.

Due Date: 5/7/2018

Award Ceiling: \$200,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298718>

Contact: support@grants.gov

Agency: National Institutes of Health

Program: Secondary Analyses in Obesity, Diabetes and Digestive and Kidney Diseases

Description: The goal of this program is to facilitate research that explores innovative hypotheses through the use of existing data sets.

Due Date: 5/7/2018

Award Ceiling: \$200,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298700>

Contact: support@grants.gov

Agency: National Institutes of Health

Program: Development and Testing of Novel Interventions to Improve HIV Prevention, Care, and Program Implementation

Description: This FOA provides resources to support pilot or feasibility studies of new or adapted interventions to prevent HIV infection among populations where substance use may be a contributing factor.

Due Date: 5/7/2018

Award Ceiling: \$225,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298703>

Contact: support@grants.gov

Agency: National Institutes of Health

Program: International Research Collaboration on Drug Abuse and Addiction Research

Description: This Funding Opportunity Announcement (FOA) encourages collaborative research applications on drug abuse and addiction that take advantage of special opportunities that exist outside the United States.

Due Date: 05/07/2018

Award Ceiling: \$200,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298711>

Contact: support@grants.gov

Agency: National Institutes of Health

Program: Health Services and Economic Research on the Prevention and Treatment of Drug, Alcohol, and Tobacco Abuse

Description: This Funding Opportunity Announcement encourages small grant applications to conduct rigorous health services and economic research to maximize the delivery of efficient, high-quality drug, tobacco, and alcohol prevention, treatment, and recovery support services.

Due Date: 5/7/2018

Award Ceiling: See announcement

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298714>

Contact: support@grants.gov

Agency: National Institutes of Health

Program: Targeted Implementation Science to Achieve 90/90/90 Goals for HIV/AIDS Prevention and Treatment

Description: This Funding Opportunity Announcement encourages implementation research projects designed in partnership with global and domestic service providers, to target the particular needs in the selected community, to achieve the 90/90/90 HIV prevention and treatment targets identified by HIV/AIDS global leadership.

Due Date: 1/7/2020

Award Ceiling: \$200,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=299106>

Contact: support@grants.gov

Agency: National Institutes of Health

Program: Innovative Biospecimen Science Technologies for Basic and Clinical Cancer Research (R21 - Clinical Trial Not Allowed)

Description: This Funding Opportunity Announcement solicits grant applications proposing exploratory research projects focused on the early-stage development of highly innovative technologies that improve the quality of the samples used for cancer research or clinical care.

Due Date: 9/28/2018

Funding: See announcement **Award Ceiling:** \$200,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298895>

Contact: support@grants.gov

Agency: National Science Foundation

Program: Resource Implementations for Data Intensive Research in the Social, Behavioral and Economic Sciences

Description: The goal is to develop user-friendly large-scale next-generation data resources and relevant analytic techniques to advance fundamental research in SBE areas of study.

Due Date: 2/28/2018

Funding: \$4,500,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298855>

Contact: support@grants.gov

Agency: National Science Foundation

Program: National Robotics Initiative 2.0: Ubiquitous Collaborative Robots

Description: The focus of the NRI-2.0 program is on ubiquity, which in this context means seamless integration of co-robots to assist humans in every aspect of life. The program supports four main research thrusts that are

envisioned to advance the goal of ubiquitous co-robots: scalability, customizability, lowering barriers to entry, and societal impact.

Due Date: 02/20/2018

Funding: \$35,000,000 **Award Ceiling:** \$1,500,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298941>

Contact: support@grants.gov

Agency: National Science Foundation

Program: Smart and Connected Communities

Description: The goal of the NSF Smart and Connected Communities program solicitation is to accelerate the creation of the scientific and engineering foundations that will enable smart and connected communities to bring about new levels of economic opportunity and growth, safety and security, health and wellness, and overall quality of life.

Due Date: 02/28/2018

Funding: \$19,250,000 **Award Ceiling:** \$3,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=299083>

Contact: support@grants.gov

Agency: National Science Foundation

Program: Archaeology and Archaeometry

Description: The goal of the Archaeology Program is to fund research which furthers anthropologically relevant archaeological knowledge. The focus is on projects judged to be significant from an anthropological perspective, the Program sets no priorities based on time period, geographic region or specific research topic.

Due Date: Proposals accepted anytime

Funding: See announcement

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=45598>

Contact: support@grants.gov

Agency: National Science Foundation
Program: Industry-University Cooperative Research Centers Program
Description: An IUCRC contributes to the nation's research infrastructure base and enhances the intellectual capacity of the engineering and science workforce through the integration of research and education.
Due Date: 12/20/2017
Funding: \$20,500,000 **Award Ceiling:** \$200,000
Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=289869>
Contact: support@grants.gov

Agency: National Science Foundation
Program: Computational and Data-Enabled Science and Engineering in Mathematical and Statistical Sciences
Description: The goal of the program is to promote the creation and development of the next generation of mathematical and statistical theories and tools that will be essential for addressing such issues. To this end, the program will support fundamental research in mathematics and statistics whose primary emphasis will be on meeting the aforementioned computational and data-related challenges.
Due Date: 12/11/2017
Funding: \$5,000,000 **Award Ceiling:** \$1,000,000
Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=289329>
Contact: support@grants.gov

Agency: National Science Foundation
Program: Computational and Data-Enabled Science and Engineering
Description: The goal of the program is to identify and capitalize on opportunities for major scientific and engineering breakthroughs through new computational and data analysis approaches.
Due Date: 12/11/2017
Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=184834>
Contact: support@grants.gov

Agency: National Science Foundation

Program: Dimensions of Biodiversity

Description: Despite centuries of discovery, most of our planet's biodiversity remains unknown. The scale of the unknown diversity on Earth is especially troubling given the rapid and permanent loss of biodiversity across the globe. The goal of the Dimensions of Biodiversity campaign is to transform, by 2020, how we describe and understand the scope and role of life on Earth. Successful proposals must integrate these three dimensions to understand interactions and feedbacks among them.

Due Date: 2/28/2018

Funding: \$15,000,000 **Award Ceiling:** \$2,000,000

Website: <https://www.grants.gov/web/grants/view-opportunity.html?oppId=298345>

Contact: support@grants.gov