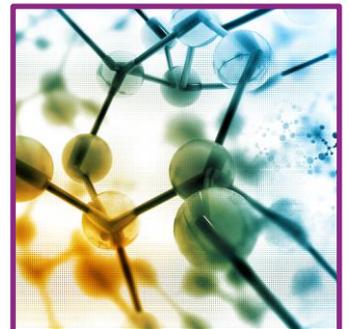
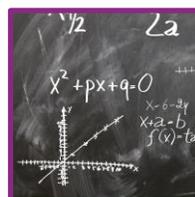


# Analysis of the FY 2021 Omnibus Appropriations Bills and COVID Aid Package: Implications for Research, Higher Education, and Academic Medicine

Prepared by Lewis-Burke Associates LLC  
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## Executive Summary

On December 21, Congress passed a massive end of year package that included \$1.4 trillion fiscal year (FY) 2021 omnibus appropriations, \$908 billion in COVID-19 pandemic relief, and several other pieces of legislation. The package had broad bipartisan support passing the House on a vote of 359-53 and the Senate on a vote of 92-6. President Trump is expected to sign it into law before current government funding expires on December 28. Congress used the must-pass spending package as the vehicle to pass other important legislation that the House and Senate have been attempting to advance over the last two years, such as the first major update in ten years to energy research and development programs, a higher education policy bill, provisions to end surprise medical billing, and a major change to copyright law (see side bar for the full list). This document provides an in-depth analysis of final appropriations and the COVID aid package. In early 2021, Lewis-Burke will provide separate analyses of other important legislation passed in this end-of-year package.

### FY 2021 Appropriations

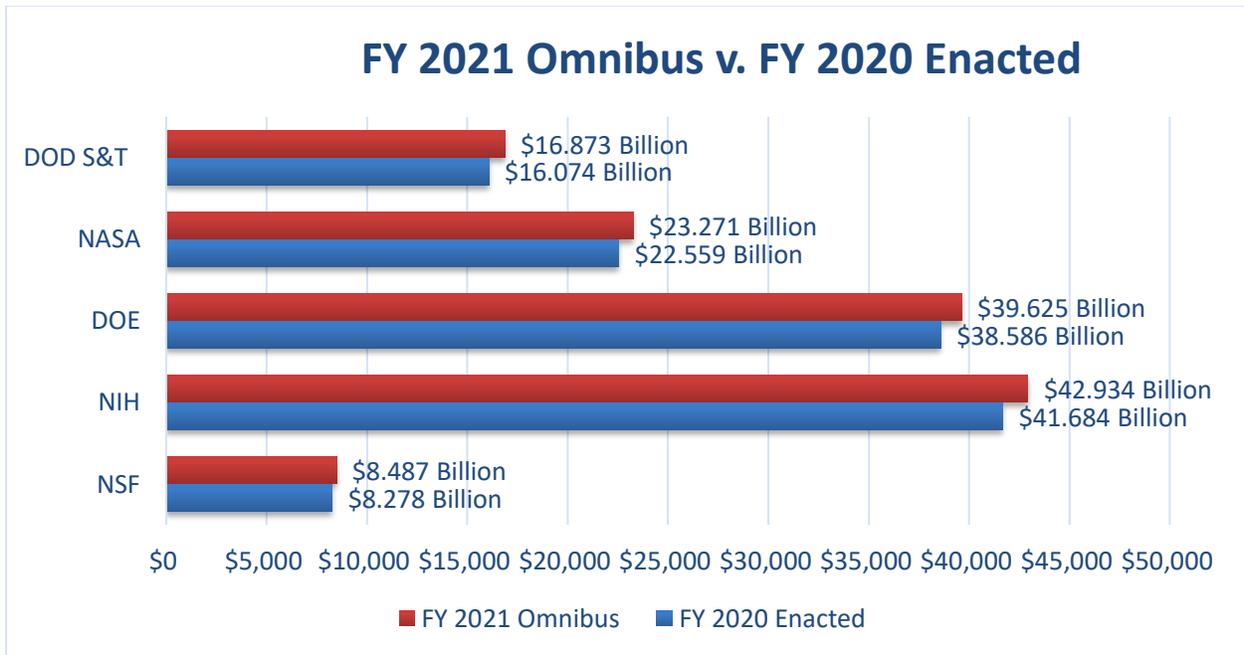
Congress once again rejected significant cuts to federal agencies proposed by the Trump Administration. Due to budget constraints under the last year of legally mandated budget caps, Congress provided only modest increases to federal programs compared to prior years. However, Congress did grow or maintain stable funding compared to FY 2020 for most federal programs of interest to the research, education, and academic medicine communities, including student aid programs, the National Institutes of Health (NIH), the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA), Department of Energy (DOE) research and development programs, Department of Defense (DOD) science and technology accounts—basic research (6.1), applied research (6.2), and advanced technology development (6.3). The graphic below shows final funding results for major research agencies.

In addition to research funding, the spending package includes several important wins for higher education. The maximum award for Pell Grants would be increased by \$150, bringing the award to \$6,495 for the 2021-2022 school year. Federal student aid programs, including the Federal Supplemental Educational Opportunity Grant and Federal Work Study, would also receive an increase, as would several programs for Minority-Serving Institutions. Regarding healthcare issues, the omnibus provides a three percent increase in funding for Title VII Health Professions and Title VIII Nursing Workforce Development Programs at the Health Resources and Services Administration. In an attempt to address healthcare workforce shortages, the omnibus will also remove regulations around Graduate Medical Education, which may pave the way

## Key Elements of FY 2021 Spending Package

- \$1.4 trillion omnibus spending package with funding for all 12 FY 2021 appropriations bills
- \$908 billion COVID aid package
- Provisions to end surprise medical billing
- New Department of Energy applied research and development initiatives
- Tax provisions, such as permanent tax deductions for qualified tuition and related expenses for higher education
- A higher education bill that would, among other things, simplify financial aid forms and expand Pell eligibility
- 10-year reauthorization of the Patient-Centered Outcomes Research Institute
- Extension of graduate medical education and other expiring health programs
- A major water infrastructure package that authorizes \$19.5 billion for Army Corps of Engineers projects and Environmental Protection Agency wastewater treatment and drinking-water programs
- The annual intelligence authorization bill
- The Copyright Alternative in Small-Claims Enforcement (CASE) Act

for ending a nearly 25-year freeze on Medicare-supported residency slots in the nation. The final bill will also provide funding for programs with strong congressional support, such as a new pilot program to study social determinants of health in attempt to address health disparities, programs to address Alzheimer’s disease, and efforts to alleviate mental health and substance use disorders. Additionally, the omnibus will provide a three-month extension of the moratorium on 2% Medicare sequester cuts.



While rejecting proposed steep funding cuts, Congress did increase investments in many of the Trump Administration’s science and technology priorities, including:

- quantum information science,
- artificial intelligence and machine learning,
- strategic computing,
- autonomous systems,
- 5G and advanced communications,
- genomics and engineered biology,
- next-generation microelectronics,
- hypersonics, and
- space exploration.

Given strong bipartisan congressional support and stated priorities of President-elect Biden’s campaign, investments in these emerging technologies are expected to continue.

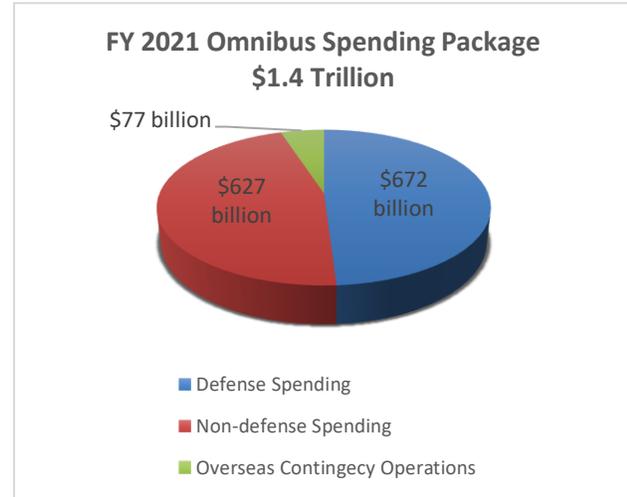
The FY 2021 spending package abides to the funding levels in the two-year budget agreement reached in July 2020 with \$672 billion for defense spending—an increase of \$5 billion or less than 1 percent above FY 2020 levels—and \$627 billion for non-defense spending—an increase of \$5 billion or less than 1 percent above FY 2020 enacted levels. This growth in spending for federal agencies and programs in FY 2021 is much more constrained than prior years. However, non-defense spending will actually grow by \$17.5 billion or close to 3 percent because Congress found unused funds to offset \$12.5 billion in health care costs for veterans.

### COVID Aid

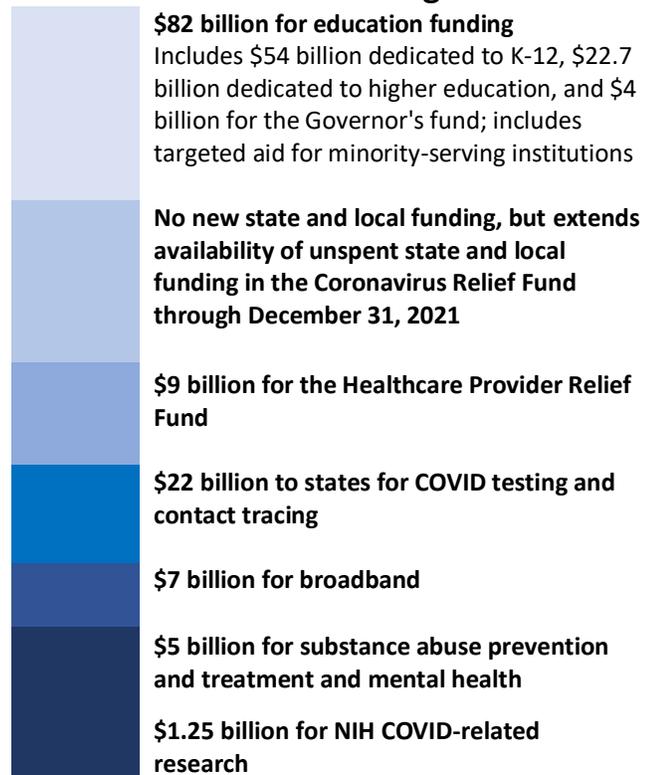
Congress reached agreement on another COVID aid package. Negotiations on the scope and scale of the COVID aid package delayed FY 2021 appropriations. While smaller than initial Democratic demands but larger than initial Republican proposals, the \$908 billion package addresses what Congress and the Trump Administration consider the most pressing needs. About one-third of the aid—or \$325 billion—is for small-business relief, including \$284 billion for another round of Paycheck Protection Program forgivable loans. Another \$166 billion is for another round of tax rebates for low-income households. Notably absent is new state and local funding—a top Democratic priority—and broad liability protections from COVID-related impacts for businesses—a top Republican priority.

The spending package includes \$81.9 billion for the Education Stabilization Fund for COVID relief for educational entities. This includes \$54.3 billion for elementary and secondary school relief, \$4.05 billion for a Governors Emergency Education Relief Fund (GEERF), and \$22.7 billion specifically for the Higher Education Emergency Relief Fund. However, the bill does not extend the federal government’s pause on monthly payments and interest accrual for federal student loans, which is set to expire at the end of January 2021.

The COVID aid package includes \$1.25 billion to support COVID-related research at the NIH but no research funding for other agencies or any funding for research relief. See the side bar for key COVID aid package provisions of most relevance.



### Select Provisions of COVID Aid Package



## Higher Education and Health Care Authorization Provisions

Included in the package was a higher education bill that would make several higher education policy changes. This includes a streamlining of the Free Application for Federal Student Aid (FAFSA), removal of the ban on federal student aid for applicants with drug-related convictions, reinstatement of Pell Grant eligibility for incarcerated students, and forgiveness of over \$1 billion in loans made to Historically Black Colleges and Universities (HBCUs), among other changes. The final package also includes several provisions impacting healthcare providers and teaching hospitals, including a ban on surprise medical billing, the continuation of several healthcare extenders, and a delay on Medicaid Disproportionate Share Hospital (DSH) payments for fiscal years 2022 and 2023. Lewis-Burke will provide a full analysis of these education, health care, and other policy changes in early 2021.

## Outlook for FY 2022 Appropriations and Further COVID Relief

There are a number of opportunities and significant challenges heading into FY 2022. With the expiration of the Budget Control Act, after more than a decade, Congress and the incoming Biden Administration will not be bound by budget caps, the threat of automatic budget cuts, or pre-determined defense and non-defense spending splits. The incoming Biden Administration has made clear that it will be seeking another COVID aid package to address not only public health impacts of COVID but also economic stimulus and infrastructure investments. President-elect Biden is also going to aggressively pursue investments in clean energy technologies and environmental justice programs to tackle climate change and meet aggressive net zero carbon emission goals while also addressing the economic and health impacts of different communities caused by an energy transition. The Biden campaign also promised \$400 billion over the next decade in new investments in emerging technologies, such as quantum information science, AI, and biotechnology.

However, the ambitions of the Biden Administration will be tempered by a Republican-controlled Senate, if Republicans win one or both of the Georgia seats in the January 5 run off. Republicans are likely to focus on deficit-reduction and constraining significant growth in discretionary spending, while also opposing any major tax increases. The Budget Committees will become critically important in setting annual budget caps and advancing fiscal blueprints, but most Members of Congress have no experience with the budget process. Further, finding consensus among House Democrats, especially between the progressive and moderate wings, will be a challenge, and House Democrats only hold a four-seat majority in the next Congress to pass major legislation. A Republican-controlled Senate may also delay the confirmation of major Cabinet-level positions needed to set policies, make funding decisions, and manage federal agencies. One of the biggest challenges President-elect Biden will face is restoring the federal workforce and filling key positions and roles through the government to execute new programs.

Below is more detailed FY 2021 appropriations funding and COVID aid information on each major federal agency.

## COVID Aid Package

The spending package includes \$908 billion for COVID relief, the first major infusion of new aid since Congress passed the \$2 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act in March 2020. Even with this major infusion of new funding, Democrats and President-elect Biden are already preparing another COVID relief and economic stimulus package for early next year.

The bulk of the funding is directed at new small-business loans, \$300 a week in expanded unemployment benefits for 10 weeks, a new round of \$600 tax rebate checks for low-income families, and funding to states for vaccine distribution. In addition to these measures, below is more detailed information on funding of most interest to research institutions, academic health organizations, and universities.

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### *Healthcare and NIH*

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The Department of Health and Human Services (HHS) will receive **\$73 billion** in COVID-19 relief funding to support testing, contact tracing, surveillance, and vaccine distribution activities; mental health prevention and treatment services; vaccine, therapeutic, and diagnostic development efforts; research related to COVID-19; further relief for healthcare providers; and child care assistance for families. More specifically, the bill includes:

- \$1.25 billion for the **National Institutes of Health (NIH)** to support COVID-19 research, including \$1.15 billion for research and clinical trials related to long-term studies of COVID-19 and \$100 million for NIH's Rapid Acceleration of Diagnostics (RADx) program.
- \$8.75 billion at the **Centers for Disease Control and Prevention (CDC)** to plan, prepare for, promote, distribute, and administer vaccines, with \$4.5 billion going directly to states and localities. The agreement also includes a \$300 million set-aside for high-risk underserved populations, including racial and ethnic minority populations and rural communities.
- \$4.25 billion for the **Substance Abuse and Mental Health Services Administration (SAMHSA)**, including \$1.65 billion for the Mental Health Services Block Grant, \$1.65 billion for the Substance Abuse and Prevention Block Grant, and \$50 million for suicide prevention grants.
- \$48.34 billion for the HHS **Public Health and Social Services Emergency Fund (PHSSEF)**, including \$22.4 billion for testing and contact tracing, surveillance, containment, and mitigation, with a set aside for underserved populations. The funding will support scaling up testing capabilities offered by various entities including academic, commercial, public health, and hospital laboratories to support activities related to COVID-19 testing and mitigation. Additionally, \$3 billion will be provided to the Provider Relief Fund, to help mitigate lost revenue from treating COVID-19 patients and \$3.25 billion for the Strategic National Stockpile.
- \$10.25 billion for the **Administration for Children and Families (ACF)** to support early childhood programs and child care providers, including \$250 million for the Head Start program to ensure participating providers can continue serving low-income children and families throughout the pandemic.

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## *Education and Workforce*

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The COVID aid package includes \$81.9 billion for education specific purposes under an Education Stabilization Fund. This includes \$54.3 billion for elementary and secondary school relief, \$4.05 billion for a **Governors Emergency Education Relief Fund** (GEERF), and of most interest to colleges and universities, \$22.7 billion specifically for the **Higher Education Emergency Relief Fund**. GEERF funds can support both K-12 and higher education institutions. Like the CARES Act, the bill contains a Maintenance of Effort requirement of states to maintain funding for elementary, secondary, and higher education; however, the Secretary may offer a waiver for states with financial need.

Of the higher education emergency relief funds, \$20.2 billion will be available to all public and private *non-profit* institutions of higher education, \$908 million will be available for-profit colleges to provide grants for students, and \$1.7 billion will be available for HBCUs, Tribal colleges, and Minority - Serving Institutions. Additionally, the bill will provide \$113.5 million for institutions with the greatest unmet needs not captured under the primary institutional formula. It is expected that the Department of Education will utilize the same mechanisms for application and distribution of funds as previously followed under the CARES Act.

For the \$20.2 billion for non-profit higher education, the formula for institutional distribution of higher education funds differs from and is slightly more complicated than used under the CARES Act. Whereas the CARES Act only used full-time equivalent (FTE) enrollment, uses a mix of FTE and headcount enrollment, with a continued weight towards the share of Pell recipients. The bill directs the Secretary of Education, to the extent practicable, to allocate the \$20.2 billion within 30 days of enactment. The \$1.7 billion HBCU and minority-serving fund will follow a similar distribution model as the CARES Act, but now also takes into account an institution's total enrollment as well as full-time equivalent student levels in determining distributions. The Secretary is expected to allocate these funds within 60 days.

The higher education funds may be used to “defray expenses associated with coronavirus;” “carry out student support activities authorized by the HEA that address needs related to coronavirus;” or “provide financial aid grants to students (including students exclusively enrolled in distance education).” Student grants may be used for any component of the student's cost of attendance or for emergency costs that arise due to coronavirus, such as tuition, food, housing, health care (including mental health care), or child care. Institutions will be expected to “provide at least the same amount of funding in emergency financial aid grants to students as was required” under the original CARES Act distribution. The bill includes a new restriction for private institutions that paid the endowment excise tax in 2019, restricting those institutions to receive only half of the expected institutional distribution, limited for purposes of direct student grants, sanitation, personal protective equipment, or other health or safety expenses.

The bill will provide the Department of Education's **Institute of Education Sciences** with an additional \$28 million to cover the costs of implementing the K-12 focused National Assessment of Educational Progress (NAEP) assessment during the pandemic.

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### *Tax Provisions Impacting High Education and Other Employers*

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The bill also includes or phases out certain tax provisions important to higher education and other organizations, including:

- The bill will not extend the mandate on certain employers to offer paid emergency family and medical leave related to COVID-19 beyond the 2020 end date set up under the *Families First Coronavirus Response Act*. However, this bill will extend the refundable payroll tax credit for employers who continue to offer paid sick and family leave through the end of March 2021.
- The deal extends through 2021 the non-itemizer (above-the-line) charitable deduction, introduced in the CARES Act.
- Clarifies that emergency student aid grants offered under the CARES Act would be excluded from gross income calculations for students.
- The bill will make changes to the Lifetime Learning Credit, increasing the phase-out limits from \$58,000 to \$80,000. After 2020, the qualified deduction will be repealed entirely.
- Extends a provision allowing employers to contribute up to \$5,250 tax-free toward their employees' student loan debt to payments made before Jan. 1, 2026.
- Provides new flexibility for rollover of unused health and dependent care flexible spending arrangements from 2020 to 2021 and from 2021 to 2022.

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### *Small Business Economic Relief*

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The COVID-aid package would provide significant relief to small businesses, including:

- more than \$284 million for forgivable loans under the **Paycheck Protection Program (PPP)**, including creating distinct set-asides for very small businesses and minority serving financial institutions. The final bill would also provide several modifications to PPP, including, but not limited to:
  - Expansion of eligibility to include certain 501(c)6 nonprofits with 300 or fewer employees, which include some scientific societies. To be eligible, organizations must not receive more than 15 percent of their revenue from lobbying, lobbying activities must not make up more than 15 percent of their total activities, and the cost of lobbying activities must not exceed \$1 million in the most recent year.
  - A blanket prohibition of PPP loans being used for lobbying activities and policy advocacy groups like think tanks, as well as organizations with certain ties to China.
  - The creation of a second round of PPP loans for eligible entities to borrow up to \$2 million. Provisions for the second round of loans are distinct from first round loans, including clauses regarding forgiveness metrics.
  - Simplification of the PPP application for smaller loans.
  - Expanding PPP allowable and forgivable expenses to include "supplier costs on existing contracts and purchase orders, including the cost for perishable goods at any time, costs

relating to worker protective equipment and adaptive costs, and technology operations expenditures.”

- Clarification that expenses paid for with PPP loans can be tax deductible.
- \$20 billion for the **Small Business Administration’s (SBA) Economic Injury Disaster Loans (EIDL)** program.
- \$15 billion for a **new grant program** to support live venues, theaters, museums, and zoos that have experienced significant revenue losses.

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### *Broadband*

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The legislation provides \$7 billion in funding to expand broadband access to unserved and underserved regions within the United States and creates new offices within the federal government to encourage and monitor the progress of broadband expansion across the country. This includes:

- \$300 million for a **broadband deployment program** at the National Telecommunications and Information Administration (NTIA) to support broadband infrastructure, with an emphasis on rural areas and priority given to partnerships that would reach the most unserved consumers.
- \$3.2 billion for the creation of the **Emergency Broadband Benefit Program** at the Federal Communications Commission (FCC), to offset the cost of internet and subsize devices for eligible low-income households. The FCC will also be given \$65 million to create broadband data maps.
- support for **Minority-Serving Institutions (MSIs)** through a \$285 million grant program at NTIA to support broadband connectivity and ensure that students have appropriate technology and internet access.
- a \$1 billion grant program to support broadband deployment, telehealth, distance learning, broadband affordability, and digital inclusion on tribal lands.
- \$250 million for the FCC to support its **COVID-19 Telehealth Program**. This program was authorized by the CARES Act and provides support to health care providers to enable them to offer telehealth services during the pandemic.
- \$1.9 billion for the FCC Secure and Trusted Reimbursement program, which gives financial support to telecommunications providers to replace unsecure equipment, especially equipment from Chinese companies Huawei and ZTE, with secure equipment and prioritize smaller providers and educational institutions for reimbursement.
- creation of new offices within the FCC to facilitate the expansion of broadband in the United States. It establishes the **Office of Internet Connectivity and Growth** within NTIA, which will be responsible connecting communities in need of access to high-speed internet, hosting regional workshops to share best practices for promoting broadband access, creating broadband training, tracking construction and use of broadband infrastructure built using federal support, and creating one application that eligible entities may submit to apply for all federal broadband support programs, among other items.
- the establishment of an **Office of Minority Broadband Initiatives** at NTIA to focus on broadband expansion and adoption at MSIs and their surrounding communities.
- a requirement for NTIA, the FCC, and the U.S. Department of Agriculture to coordinate on the distribution of broadband deployment funds for several federal programs.

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### *Agriculture and Food Assistance*

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Over \$11 billion is included for assistance to agricultural producers, growers, and processors. Of most relevance:

- Within the Agricultural Research Services (ARS), \$20 million is provided to “address gaps in nutrition research by studying the connection between agriculture production and human nutrition and health.” This is the only agricultural research provision included.
- The package would also increase the monthly Supplemental Nutrition Assistance Program (SNAP) benefit by 15% and provide funding to states for administrative costs. SNAP eligibility is extended to college students who are eligible for federal or state work study programs or have an expected family contribution of zero.

# Department of Commerce



## Department of Commerce

### Economic Development Administration

Economic Development  
Administration



The Economic Development Administration (EDA) will receive \$346 million, an increase of \$13 million or 3.9 percent over the fiscal year (FY) 2020 level. This allocation runs counter to the President's FY 2021 budget request that suggested eliminating the agency outright but is \$10 million less than what was proposed by the House bill.

The bill will fund the **Regional Innovation Program** (RIP, rebranded by EDA as Build to Scale) at \$38 million. This is a \$5 million increase from FY 2020 but \$12 million below the program's most recent authorization level. RIP provides support for universities and research institutes to develop and scale commercialization efforts and to cultivate funding campaigns for promising startups. In the bill, the Committee calls on EDA to prioritize geographic diversity and organizations/states that have not previously received funding when making awards. The Committee also specifies that at least 40 percent of awards must support rural communities.

The **Public Works Program** will receive \$119.5 million and the Economic Adjustment Assistance (EAA) program will receive \$37.5 million. These are relatively small increases from FY 2020, where the Public Works Program received \$118.5 million and the EAA program received \$37 million. The bill indicates that funding provided under both programs can be used to support projects related to the expansion of broadband infrastructure in underserved areas and public-private partnerships in economically distressed communities looking to diversify their workforce. The bill also directs EDA to support projects related to rural economic development challenges, such as the opioid epidemic and innovation in legacy industries, in addition to access to broadband.

The omnibus also adopts the House language that encourages EDA to account for economic injury when selecting geographic regions for the distribution of the \$1.5 billion allotted to the agency to support economic development under the *Coronavirus Aid, Relief, and Economic Security Act* (CARES Act). The bill requires the agency to report on its methodology for the distribution of funds and further consider distress levels in future award decisions.

Finally, the bill provides \$2 million for the **STEM Apprenticeships program**, which likely refers to EDA's recently competed STEM Talent Challenge Program. This is \$2.5 million less than was recommended in the House bill but shows that the program remains a priority for Congress.

#### *Sources and Additional Information:*

- The explanatory statement is available at <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-B.pdf>.

## National Institute of Standards and Technology

National Institute of Standards and Technology



The National Institute of Standards and Technology (NIST) received \$1.035 billion in the final FY 2021 spending package, essentially flat with the FY 2020 level.

The spending bill continues support for multiple NIST priorities including cybersecurity, advanced manufacturing, artificial intelligence, additive manufacturing, and quantum information science. The agreement would also provide at least \$1.25 million to support the Cybersecurity of Genomic Data. The bill includes \$150 million for the Hollings Manufacturing Extension Partnership, a \$4 million increase compared to the FY 2020 level, and \$16.5 million for Manufacturing USA, a minor increase compared to FY 2020.

Regarding *Diversity and Inclusion*, NIST is encouraged “to take discrete steps to promote racial and cultural acceptance and diversity within its workforce.”

### National Institute of Standards and Technology

(In thousands of \$)

	FY 2020 Enacted	FY 2021 House	FY 2021 Senate	FY 2021 Final Deal	FY 2021 Final vs. FY 2020 Enacted
<b>NIST, total</b>	<b>1,034,000</b>	<b>1,044,000</b>	<b>1,050,000</b>	<b>1,034,500</b>	<b>500 (0.1%)</b>
<b>Scientific and Technical Research and Services</b>	724,500	789,000	786,500	788,500	<b>63,500 (8.8%)</b>
<b>Industrial Technology Services</b>	162,000	170,000	165,500	166,500	<b>4,500 (2.8%)</b>
Hollings Manufacturing Extension Partnership (MEP)	16,000	17,000	16,000	16,500	<b>500 (3.1%)</b>
Manufacturing USA	146,000	153,000	149,500	150,000	<b>4,000 (2.7%)</b>

Source: The explanatory statement is available at <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-B.pdf>.

## National Oceanic and Atmospheric Administration

National Oceanic and Atmospheric Administration



The omnibus will provide the National Oceanic and Atmospheric Administration (NOAA) with \$5.43 billion, an increase of \$78.4 million or 1.5 percent above the fiscal year (FY) 2020 enacted level. Following the trend of the House and Senate bills, the omnibus rejected all proposed eliminations of key NOAA research programs including the Sea Grant College Program, the National Centers for Coastal Ocean Science (NCCOS), and Coastal Zone Management Grants, among others. As part of an effort to improve coastal inundation forecasting and resilience, the

bill encourages NOAA to consider the establishment of a Resilience and Adaptation Cooperative Institute to provide research, support, and applied sciences.

Notably, the final bill addresses the broader issue of sexual harassment in STEM by providing \$2 million to finalize and implement its Sexual Assault and Sexual Harassment prevention program. NOAA is also directed to submit a report analyzing the current racial and cultural makeup of the agency and to plan efforts addressing diversity, equity, and inclusion.

The **National Ocean Service (NOS)** will receive \$619.7 million, a \$20.7 million increase over FY 2020 levels. The final bill will increase funding for research focused on Harmful Algal Blooms (HABs) by \$5.5 million across NOS programs and provide an additional \$1 million for HAB research through NCCOS. Additionally, the omnibus provides \$40.5 million for the Integrated Ocean Observing System (IOOS) including expansion of work on the regional underwater gliders program, disaster response, and freshwater and marine forecasting and quality monitoring. In addition, the agreement provides \$1 million for a HAB observation and detection test bed in the Gulf of Mexico through IOOS. An increase of \$2 million or a total of \$21 million would be provided for the Coastal Science and Assessment competitive research. An increase of \$1 million is provided for the Disaster Preparedness Program within Coastal Science, Assessment, Response, and Restoration. NOAA is directed to establish a new Coastal Aquatic Invasive Species Mitigation Grant Program and Mitigation Fund. The agreement expresses concern regarding coral bleaching and disease and states support for the Coral Reef Program, providing \$8.5 million for NOS to expand collaborations with academic institutions and other non-governmental organizations to develop innovative coral restoration projects.

The final bill provides \$34 million for Title IX Fund grants, also known as the **National Coastal Resilience Fund**, which is currently co-managed by NOAA and the National Fish and Wildlife Foundation (NFWF) to support research and restoration projects for improving coastal resilience.

Additionally, the final package provides \$964.9 million for the **National Marine Fisheries Service (NMFS)**, a 1.8 percent increase over FY 2020 levels. Flat funding was allocated for the Saltonstall-Kennedy Grant Program which provides extramural funding for research on fisheries resilience, economics, sustainability, and marketing for the seafood industry. The agreement expresses support for renewable offshore wind projects, but concern for how it will impact the fishing industry. In response, it provides \$1 million to ensure continuity of fisheries survey data and permitting that may be affected by offshore wind developments. To support additional aquaculture activities, the omnibus provides \$1 million for additional aquaculture-focused staff at NMFS science centers and for the identification of two aquaculture opportunity areas (AOAs) in collaboration with NOS. Additionally, the final bill includes \$2 million for the NMFS Aquaculture Office to partner with a university or consortium to establish a pilot of an Integrated Multi-Trophic Aquaculture (IMTA) system in State waters of the Gulf of Mexico.

The agreement allocates \$570.6 million, a 4 percent increase, for **Oceanic and Atmospheric Research (OAR)**. A total of \$182 million will go to climate research including \$64 million, a \$1 million increase, for competitive climate research. \$9 million is provided for modeling and assessment of Earth's radiation budget and OAR is directed to coordinate with the National Aeronautics and Space Administration (NASA) to improve understanding of the impact of atmospheric aerosols on radiative forcing, cloud formation, precipitation, and extreme weather. The final bill will also provide \$13 million, a \$5 million increase, to the Earth Prediction Innovation Center (EPIC), a program that first opened applications in March 2020. An additional \$1 million will go to the U.S. Weather Research Program (USWRP) for

competitive research opportunities in “promising areas of weather-related research that may advance NOAA's mission and benefit society, including infrasonic monitoring methods of violent weather.”

The **National Sea Grant program** will receive \$75 million, a \$1 million increase compared to FY 2020 enacted level including an increase of \$2.5 million for the base program. The Ocean Exploration Research program will receive \$43 million, a \$1 million increase over FY 2020 levels, and NOAA is directed to accelerate efforts to map and characterize the U.S. Exclusive Economic Zone (EEZ) and Extended Continental Shelf by using the Cooperative Institutes and competitive awards for deep ocean acoustic research. The agreement also rejects the proposed cut to the Ocean Acidification Program, instead it provides \$15.5 million.

The **National Weather Service (NWS)** will be funded at \$1.1 billion, a 3.3 percent increase relative to FY 2020. A total of \$155.5 million will go to the Science and Technology Integration Account including \$15 million (\$14 million within NWS Science and Technology Integration and \$1 million within the NOS Coastal Science and Assessment) to establish a new Cooperative Institute focused broadly on addressing the Nation's water-related challenges using data, modeling, AI, supercomputing, geographic information systems, and other tools. The agreement directs NOAA's Science Advisory Board to publish a report within one year outlining a decadal plan for prioritizing investments in weather forecasting, modeling, data assimilation, and supercomputing.

Within the Procurement, Acquisition, and Construction (PAC) account, \$43 million will go toward NOAA construction. The Committee is specifically concerned with aging fisheries labs and facilities and as such, NMFS is encouraged to conduct a competitive process to co-locate NMFS laboratories with academic or other research institutions.

# Department of Defense



## Department of Defense

The Department of Defense (DOD) will receive \$715.8 billion in fiscal year (FY) 2021, a \$3.2 billion increase over the FY 2020 enacted level of \$712.6 billion but \$2.1 billion less than the President's budget request (PBR). This includes \$627.3 billion for the Department's base budget, \$68.7 billion for Overseas Contingency Operations (OCO), and roughly \$20 billion for nuclear energy and homeland security programs. Anticipating flat budgets at best in FY 2022 and beyond, the bill provides funding for major defense contractor programs, such as F-35 aircrafts, drones, Navy ships, and combat vehicles.

The omnibus overall increases Research, Development, Test & Evaluation (RDT&E) and science and technology (S&T) accounts at levels higher than the PBR as well as the House and Senate appropriations bills -- a win for the research community. DOD's RDT&E accounts will be funded at \$107.1 billion, a 2 percent increase above the FY 2020 level. Within RDT&E, the S&T accounts, which range from basic research (6.1) to advanced technology development (6.3), will be funded at \$16.9 billion, a five percent increase compared to FY 2020. The Army S&T accounts—the winner among the military Services-- will receive substantial programmatic increases compared to the PBR and House and Senate bills, including a 21.2 percent increase for applied research and a 28 percent increase for advanced technology development. These Army S&T increases aim to support Army modernization priorities, especially for aviation. The Navy S&T accounts will receive small increases, while the Air Force will receive a substantial cut of \$76.3 million across all S&T accounts, a result of diverting those funds to support the newly created Space Force, which is establishing its own separate S&T accounts.

The Defense Advanced Research Projects Agency (DARPA) will be funded at \$3.5 billion, remaining relatively flat with a 1.2 percent increase compared to FY 2020, while the Defense Threat Reduction Agency (DTRA) will be flat funded at \$14.6 million.

The bill provides funding increases for a number of Congress' and the DOD's top technology priorities, such as artificial intelligence, quantum information science, hypersonics, microelectronics/fifth generation wireless (5G), and space technology.

### **Artificial Intelligence (AI)**

The bill provides an additional funding for a range of AI activities, including \$20 million for the Army AI Innovation Institute and an additional \$2.5 million for the National Security Commission on Artificial Intelligence. Defense Research Sciences would receive an additional \$6 million for AI complex multi-material composites processing. In addition, the Director of the Joint Artificial Intelligence Center (JAIC) is directed to provide Congress with an inventory of AI programs across DOD and a coordination strategy going forward.

### **Quantum Information Science**

The bill provides \$10 million for the Air Force Quantum Information Science Innovation Center, on top of additional investments in a quantum network testbed (\$10 million) and quantum cryptography (\$7 million).

### **Hypersonics**

The bill includes a large focus on hypersonics manufacturing and supply chain efforts, including an additional \$25 million for the hypersonics advanced manufacturing technology center, \$10 million for hypersonic enabling additive manufacturing, \$5 million for hypersonic supply chain research, and \$6 million for hypersonic manufacturing capability and supply. The bill also includes \$90 million for the Joint Hypersonics Transition Office, as well as additional funding for hypersonics and thermal management (\$5 million) and carbon hypersonics materials (\$5 million).

### **Microelectronics/5G**

The bill includes an additional \$15 million in funding for trusted and assured microelectronics. DOD's Manufacturing Technology Program (ManTech) will receive a \$5 million increase to support 5G manufacturing testbeds. However, the 5G program within the Office of the Secretary of Defense (which is funded under Next Generation Information Communications Technology) was penalized with a \$19 million reduction for under execution.

### **Space Force**

The bill funds Space Force R&D activities at \$10.54 billion, with most of the funding coming from the Air Force's reallocation of programs to the Space Force. Space Force will receive \$216.9 million for applied research (6.2), with the additional funding slated for investment in specific technology areas including but not limited to solar power, digital engineering, laser communications, and battery development. In addition, the Space Rapid Capabilities office will receive a \$5 million programmatic increase to establish a University Affiliated Research Center (UARC) for space technology and capability integration.

Other notable provisions in the bill would provide:

- \$137.2 million for the National Defense Education Program, including an additional \$35 million in funding for basic research and \$2 million for civics education.
- \$81.3 million for Historically Black Colleges and Universities (HBCU), a nearly \$50 million program increase, including \$1 million for minority STEM recruitment and research.
- \$1 million for a National Academy of Sciences study on Confucius centers.
- Increases for university research initiatives across the military Services, including a \$10 million increase for the Defense University Research Instrumentation Program (DURIP) within the Navy RDT&E account.
- \$17 million to restore funding for the Minerva research initiative, the DOD's social science basic research program.
- \$40 million to restore funding for the National Security Innovation Network, which funds collaborative projects with universities.
- \$17 million increase to fund the Defense Established Programs to Stimulate Competitive Research (DEPSCoR) program, which provides opportunities for funding to institutions in states that do not receive significant research funding from DOD.
- \$10 million in additional funding for academic cyber institutes.
- \$25 million in additional funding for the newly established Defense Manufacturing Communities Support Program.

- \$370 million for the Peer-Reviewed Medical Research Program and \$115 million for the Peer-Reviewed Cancer Research Program.

<b>Department of Defense</b> <i>(in thousands of \$)</i>					
	<b>FY 2020 Enacted</b>	<b>FY 2021 House</b>	<b>FY 2021 Senate</b>	<b>FY 2021 Omnibus</b>	<b>Omnibus vs. FY 2020 Enacted</b>
<b>RDT&amp;E, total</b>	<b>104,431,232</b>	<b>104,348,089</b>	<b>104,080,076</b>	<b>107,135,164</b>	<b>2,703,932 (2.6%)</b>
<b>S&amp;T, Total</b>	<b>16,073,879</b>	<b>15,459,390</b>	<b>15,158,742</b>	<b>16,872,861</b>	<b>798,982 (5.0%)</b>
6.1, Total	2,603,345	2,621,477	2,407,126	2,671,477	68,132 (2.6%)
6.2, Total	6,069,767	5,760,141	5,997,677	6,445,789	376,022 (6.2%)
6.3, Total	7,312,097	7,077,772	6,753,939	7,755,595	443,498 (6.1%)
<b>Army RDT&amp;E</b>	<b>12,543,435</b>	<b>13,126,499</b>	<b>12,812,686</b>	<b>13,969,032</b>	<b>1,425,597 (11.4%)</b>
Army 6.1	574,484	570,559	514,359	591,559	17,075 (3.0%)
Army 6.2	1,259,374	1,234,591	1,239,281	1,525,381	266,007 (21.1%)
Army 6.3	1,531,516	1,574,325	1,593,190	1,960,925	429,409 (28.0%)
<b>Navy RDT&amp;E</b>	<b>20,155,115</b>	<b>20,165,874</b>	<b>19,758,538</b>	<b>20,078,829</b>	<b>-76,286 (0.4%)</b>
Navy 6.1	650,800	638,913	618,087	653,913	3,113 (0.5%)
Navy 6.2	1,159,739	1,041,798	1,120,269	1,182,581	22,842 (2.0%)
Navy 6.3	807,280	771,286	810,763	838,028	30,748 (3.8%)
<b>Air Force RDT&amp;E</b>	<b>45,566,955</b>	<b>36,040,609</b>	<b>35,695,255</b>	<b>36,357,443</b>	<b>-9,209,512 (20.2%)</b>
Air Force 6.1	549,761	527,294	502,294	537,294	-12,467 (2.3%)
Air Force 6.2	1,656,126	1,529,249	1,489,185	1,563,385	-92,741 (5.6%)
Air Force 6.3	1,066,453	926,548	745,224	1,002,082	-64,371 (6.0%)
<b>Space Force RDTE*</b>	N/A	10,187,840	10,434,327	10,540,069	N/A
Space Force 6.2*	N/A	160,874	187,874	216,874	N/A
<b>Defense Wide RDT&amp;E</b>	<b>25,938,027</b>	<b>24,617,177</b>	<b>25,122,150</b>	<b>25,932,671</b>	<b>-5,356 (0.0%)</b>
Defense Wide 6.1	828,300	884,711	772,386	888,711	60,411 (7.3%)

Defense Wide 6.2	1,994,528	1,954,503	1,961,068	1,957,568	-36,960 (1.9%)
Defense Wide 6.3	3,906,848	3,805,613	3,604,762	3,954,560	47,712 (1.2%)
<b>Defense Health R&amp;D</b>	<b>2,306,095</b>	<b>1,642,225</b>	<b>1,749,599</b>	<b>2,392,579</b>	<b>86,484 (3.8%)</b>

*\*The Space Force RDT&E and 6.2 lines are not new efforts initiated in FY 2021, but rather space-related efforts within the Air Force that have been transitioned to the newly established Space Force.*

Source: <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-C.pdf>



## Department of Education

The Department of Education (ED) will receive more than \$73.5 billion in discretionary appropriations, which is \$7 billion more than proposed in the President's budget request and nearly \$800 million more than in fiscal year (FY) 2020. Programs important to higher education that will receive increases include Pell Grants, Federal Work-Study (FWS), Hispanic Serving-Institutions (HSIs), and Title VI international education programs, among other programs.

For **Pell Grants**, the bill will provide \$6,495 for the maximum individual Pell Grant award for the 2021-2022 school year, a \$150 increase over the current maximum award level. The bill will also provide small increases for the **Supplemental Education Opportunity Grants (SEOG)** program and **Federal Work-Study (FWS)** program, which will be provided \$880 million and of \$1.2 billion, respectively.

Similarly, the **TRIO Programs** will be provided a modest increase of \$7 million over current levels, up to \$1.1 billion. The bill will increase funding for the **Title VI International Education and Foreign Language Studies** programs, including a \$2 million increase, totaling \$78 million for those programs. The bill will also increase funding by \$500,000 for the **Graduate Assistance in Areas of National Need (GAANN)** program, for total of \$23.5 million, a rejection of the President's proposal to eliminate the program. The bill will also increase funding for the **Child Care Access Means Parents in School (CCAMPIS)** program to \$55 million, an increase of \$2 million above the FY 2020 enacted level.

The Title V **Developing Hispanic Serving Institutions (Developing HSIs)** program and the **Promoting Post-Baccalaureate Opportunities for Hispanic Americans (PPOHA)** program will also have slight increases. The bill will provide a nearly \$149 million for Developing HSIs, an over \$5 million increase above the enacted level, and nearly \$14 million for PPHOA. Additionally, the **Strengthening Asian American and Native American Pacific-Islander-Serving Institutions (AANAPISI)** program will receive \$5.1 million. Like past years, Congress ignored the President's budget request proposal to consolidate several minority-serving institution programs.

Under the **Fund for the Improvement of Postsecondary Education (FIPSE)** account, which will be provided \$41 million in total, the bill will provide \$7 million to support the **Centers of Excellence for Veterans Student Success** program that had been restarted in the FY 2020 appropriations after a hiatus. The bill will also continue funding of \$7 million to support another multi-grant competition for the **Open Textbook Pilot** program. Newly proposed grant programs under the bill include: \$7 million for a **Modeling and Simulation** education training program, \$1 million for a **Transitioning Gang-Involved Youth to Higher Education** program, \$2 million to support a **Center of Educational Excellence** at an undergraduate Historically Black College or University focused on the production of Black teachers, a \$5 million competitive **Basic Needs Grant** program to support college and graduate students, as well as \$2 million for the operation of the **National Center for Information and Technical Support for Postsecondary Students with Disabilities**. The bill also creates a new **Rural Postsecondary and**

**Economic Development Grant Program** that will provide \$10 million to institutions of higher education for innovative approaches to increasing the enrollment and completion for rural students.

Also, the omnibus will increase funding for the **Institute of Education Sciences (IES)**, the Department’s education research arm, providing \$642 million for the Institute, a \$19 million increase above the FY 2020 enacted levels. While majority of the increase will go toward national K-12 assessment programming, the research accounts will see \$2 million increases over FY 2020 levels. The bill will fund the **Education and Innovation Research (EIR)** program at \$194 million for FY 2021, a \$4 million increase from current levels. Of the total, \$67 million will be for social and emotional learning (SEL) and \$67 million for STEM education and computer science focused awards, with this funding prioritized for populations historically underrepresented in STEM programs.

**Higher Education Policy Provisions**

In addition to appropriations, the funding package also included higher education policy changes, which typically would have come under a reauthorization of the *Higher Education Act (HEA)*. The changes include a streamlining of the Free Application for Federal Student Aid (FAFSA), a long-standing, top priority of retiring Senate education committee Chairman Lamar Alexander (R-TN). Included in the FAFSA changes is the replacement of the expected family contribution (EFC) with a Student Aid Index (SAI). The SAI would be used to determine Title IV aid eligibility except for maximum and minimum Pell Grant awards. These changes could also facilitate the creation of a look-up table to anticipate future Pell Grant eligibility. Additionally, the bill removes the ban on federal student aid for applicants with drug-related convictions.

Other changes also include reinstatement of Pell Grant eligibility for incarcerated students, restoration of Pell Grant eligibility for some defrauded students, a fix to help low-income student eligibility for subsidized student loans, and forgiveness of over \$1 billion in loans made to Historically Black Colleges and Universities (HBCUs) as part of the HBCU Capital Financing Loan program. The agreement will also fix to allow for data sharing between the IRS and Department of Education for easier FAFSA filing.

<b>Department of Education</b> <i>(in thousands of \$)</i>					
	<b>FY 2020 Enacted</b>	<b>FY 2021 House</b>	<b>FY 2021 Senate</b>	<b>FY 2021 Omnibus</b>	<b>Omnibus vs. Enacted</b>
<b>Elementary and Secondary Education*</b>					
Promise Neighborhoods	80,000	82,000	80,000	81,000	1,000 (1.3%)
Education Innovation and Research	190,000	195,000	130,000	194,000	4,000 (2.1%)
<b>Student Financial Assistance*</b>					
Pell Grant <sup>†</sup>	6,345	6,495	6,495	6,495	150 (2.4%)
SEOG	865,000	880,000	865,000	880,000	15,000 (1.7%)
Federal Work-Study	1,180,000	1,200,000	1,180,000	1,190,000	10,000 (0.8%)

**Higher Education\***

Title V Aid for Developing HSIs <sup>±</sup>	143,081	155,081	145,870	148,732	5,651 (3.9%)
Promoting Post-Baccalaureate Opportunities for Hispanic Americans <sup>±</sup>	12,838	13,599	13,088	13,845	1,007 (7.8%)
Strengthening Historically Black Colleges (HBCUs)	324,792	344,034	331,123	337,619	12,827 (3.9%)
Strengthening Native American-Serving Nontribal Institutions <sup>±</sup>	4,444	4,707	4,531	5,120	676 (15.2%)
Title VI International Education and Foreign Language Studies	76,164	80,323	76,164	78,164	2,000 (2.6%)
TRIO Programs	1,090,000	1,100,000	1,090,000	1,097,000	7,000 (0.6%)
GEAR UP	365,000	370,000	365,000	368,000	3,000 (0.8%)
GAANN	23,047	24,047	23,047	23,547	500 (2.2%)
Teacher Quality Partnerships	50,092	52,092	50,092	52,092	2,000 (4.0%)
Child Care Access Means Parents in Schools	53,000	55,000	53,000	55,000	2,000 (3.8%)
<b>Institute of Education Sciences</b>	<b>623,462</b>	<b>630,462</b>	<b>635,462</b>	<b>642,462</b>	<b>19,000</b> <b>(3.0%)</b>
Research, Development and Dissemination	195,877	197,877	195,877	197,877	2,000 (1.0%)
Research in Special Education	56,500	58,500	56,500	58,500	2,000 (3.5%)
Regional Education Laboratories	56,022	57,022	56,022	57,022	1,000 (1.8%)
Statewide Data Systems	33,000	33,500	33,000	33,500	500 (1.5%)

\*Categories included for ease of reading the chart.

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

± Under the President's Budget Request, several Title III and Title V programs, would be eliminated, and a new consolidated MSI Institutional Formula Grant would be established.

*Sources:*

- Text of Consolidated Appropriations Act of 2021 [Amendment to H.R. 133]  
<https://rules.house.gov/sites/democrats.rules.house.gov/files/BILLS-116HR133SA-RCP-116-68.pdf>.
- Joint Explanatory Statement of Division H, DEPARTMENTS OF LABOR, HEALTH AND HUMAN SERVICES, AND EDUCATION, AND RELATED AGENCIES, at <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-H.pdf>.



## Department of Energy

The FY 2021 omnibus will provide \$39.6 billion for the Department of Energy (DOE), which is \$1 billion or 2.7 percent above the FY 2020 enacted level. Like prior years, the omnibus rejects all of the Trump Administration’s proposed cuts. The omnibus also makes clear that it disagrees with the Trump Administration’s focus on supporting only early-stage research and instead directs DOE to “maintain a diverse portfolio of early-, mid-, and late-stage research, development, and market transformation activities in each applied energy research and development program office.” The omnibus would advance all research and development programs and initiatives of interest to universities, National Laboratories, and the broader research community. However, compared to prior years, most programs would receive modest increases compared to FY 2020 or remain flat.

The top four funding priorities include:

- The National Nuclear Security Administration’s (NNSA) nuclear weapons modernization and science-based stockpile stewardship activities, with an increase of \$2.9 billion, or 23 percent, above the FY 2020 enacted level;
- Renewable energy and energy efficiency programs to address climate change and accelerate deployment of energy technologies to maintain U.S. competitiveness, with an increase of \$72 million, or 2.6 percent, above the FY 2020 enacted level;
- Grid modernization efforts to improve the resilience and reliability of the electric grid, with an increase of \$22 million, or 12 percent, above the FY 2020 enacted level; and
- Fundamental research in the physical sciences supported by the Office of Science, with an increase of \$26 million, or 0.4 percent, above the FY 2020 enacted level.

While the omnibus does not provide specific funding guidance, it does direct DOE to prioritize funding for a number of cross-cutting initiatives, including grid modernization, energy storage, critical minerals, plastics innovation/polymer upcycling, integrated energy systems, and new technologies for greenhouse gas emissions reductions. These efforts are consistent with new energy research and development initiatives in the Energy Act of 2020—the first comprehensive energy research and development authorizing legislation in 10 years. This energy bill is attached to the larger spending package and Lewis-Burke will provide a separate analysis of major provisions.

The omnibus also advances two key Trump Administration research and development priorities that also have strong, bipartisan congressional support including:

- **Quantum information science (QIS).** A total of \$245 million—an increase of \$50 million above the FY 2020 enacted level—is provided to carry out a diverse QIS program. Of the \$245 million, \$120 million would support the core QIS basic research program across the six Office of Science programs. The remaining \$125 million will fully fund the five National Quantum Information Science Research Centers. The omnibus also directs DOE to establish a roadmap to increase access of the private sector, federal agencies, and university researchers to DOE’s quantum

systems to help advance quantum computing capabilities, train the next generation workforce and build a broader user base.

- **Artificial intelligence/machine learning (AI/ML).** The omnibus will provide \$258 million to support AI/ML research activities across DOE. Of this amount \$100 million will support the Office of Science, an increase of \$29 million above the FY 2020 enacted level. This will help support foundational areas such as applied mathematics and computational science; accelerate discoveries in domain sciences such as chemistry, biology, and physics; and improve operations of user facilities. The omnibus will also provide \$76 million for AI/ML activities relevant to the national security mission within the NNSA Advanced Simulation and Computing program. The remaining \$82 million will be focused on applied energy applications.

Below is a summary of funding levels for relevant programs highlighted in the omnibus:

- The **Advanced Research Projects Agency-Energy (ARPA-E)** will not be terminated and instead see a modest increase of \$2 million for a total of \$427 million.
- The bill will provide \$115 million for **Energy Frontier Research Centers (EFRCs)**. This level of funding will support the 41 existing centers and allow DOE to move forward with its FY 2021 competition.
- The four **Bioenergy Research Centers** will be fully funded at \$100 million.
- The four existing **Energy Innovation Hubs**—Batteries and Energy Storage, Fuels from Sunlight, Critical Materials, and Energy-Water Desalination— will be fully funded.
- **Mathematical, computational, and computer science research** will be funded at \$250 million and \$10 million is provided for the **Computational Science Graduate Fellowship program**.
- The omnibus will provide \$62.5 million for **negative emissions technologies**, with \$22.5 million for the Office of Science and \$40 million within fossil energy research and development. Of these amounts, \$7.5 million and \$15 million will be used to support research and development of direct air capture technologies within the Office of Science and fossil energy, respectively.
- The omnibus provides at least \$40 million to support the **Nuclear Energy University Program**.
- The omnibus provides \$14 million to fully fund the existing **Clean Energy Manufacturing Innovation Institute** on cybersecurity and \$14 million to create a new Institute.
- The final bill provides \$5 million to the Office of Technology Transitions (OTT) to compete new **regional “incubators supporting energy innovation clusters.”** These incubators should have state, regional, and local support; focus on job creation; and expand workforce development opportunities especially in low-income communities and for under-represented energy entrepreneurs.
- The omnibus will not terminate the new **Office for Artificial Intelligence and Technology (AITO)**, as proposed by the House, and instead provides \$2.5 million to support AITO’s efforts to coordinate AI research and development across the Department and adopt AI technologies to improve DOE business operations. AITO receives no additional funding to support research and development activities.
- The omnibus directs DOE to evaluate the benefits of creating a **DOE Foundation** to leverage private sector funding to advance DOE-funded energy technologies.
- The final bill supports growing **collaborations between DOE and NIH** and provides \$1 million as a down payment to help NIH with data and computational needs. The omnibus also direct DOE to expand the relationship with NIH to include greater use of high-performance computing and instrumentation at user facilities as well as research collaborations in materials, modeling and simulation, and data science.

- NNSA’s renamed **Stockpile Research and Engineering** (formerly Research, Development, Test and Evaluation) program sees an increase of \$466 million, or 20 percent above the FY 2020 enacted level.
- The final bill grows **Academic Programs** within NNSA’s Stockpile Research and Engineering activities to \$102 million, an increase of \$15 million or 17 percent compared to FY 2020, with \$35 million for Minority Serving Institutions and \$8.7 million for the Joint Program in High Energy Density Laboratory Plasmas.
- The omnibus fully funds the three **University Consortia for Nuclear Non-proliferation Research Centers**.

### Department of Energy

*(In thousands of \$)*

	FY 2020 Enacted	FY 2021 House	FY 2021 Senate	FY 2021 Omnibus	Omnibus vs. FY 2020 Enacted
<b>DOE, total</b>	<b>38,586,316</b>	<b>40,865,178</b>	<b>42,039,126</b>	<b>39,625,025</b>	<b>1,038,709 (2.7%)</b>
<b>Science</b>	<b>7,000,000</b>	<b>7,050,000</b>	<b>7,026,000</b>	<b>7,026,000</b>	<b>26,000 (0.4%)</b>
Advanced Scientific Computing Research	980,000	1,015,000	1,029,000	1,015,000	35,000 (3.6%)
Basic Energy Sciences	2,213,000	2,242,000	2,215,000	2,245,000	32,000 (1.4%)
Biological and Environmental Research	750,000	760,000	750,000	753,000	3,000 (0.4%)
Fusion Energy Sciences	671,000	680,000	640,000	672,000	1,000 (0.1%)
High Energy Physics	1,045,000	1,050,000	1,050,000	1,046,000	1,000 (0.1%)
Nuclear Physics	713,000	715,000	725,000	713,000	--
Workforce Development for Teachers and Scientists	28,000	30,000	28,500	29,000	1,000 (3.6%)
Science Laboratories Infrastructure	301,000	254,250	279,500	240,000	-61,000 (20.3%)
<b>ARPA-E</b>	<b>425,000</b>	<b>435,000</b>	<b>430,000</b>	<b>427,000</b>	<b>2,000 (0.5%)</b>
<b>EERE</b>	<b>2,790,000</b>	<b>2,848,000</b>	<b>2,848,000</b>	<b>2,861,760</b>	<b>71,760 (2.6%)</b>
Hydrogen and Fuel Cell Technologies	150,000	150,000	150,000	150,000	--
Bioenergy Technologies	259,500	258,000	244,500	255,000	-4,500 (1.7%)
Solar Energy Technologies	280,000	280,000	233,800	280,000	--
Wind Energy Technologies	104,000	104,000	115,000	110,000	6,000 (5.8%)
Geothermal Technologies	110,000	108,500	105,000	106,000	-4,000 (3.6%)
Water Power Technologies	148,000	145,500	148,000	150,000	2,000 (1.4%)

Vehicle Technologies	396,000	396,000	410,000	400,000	4,000 (1.0%)
Building Technologies	285,000	285,000	295,000	290,000	5,000 (1.8%)
Advanced Manufacturing Technologies	395,000	395,000	395,000	396,000	1,000 (0.3%)
<b>Nuclear Energy</b>	<b>1,493,408</b>	<b>1,435,800</b>	<b>1,505,300</b>	<b>1,507,600</b>	<b>14,192</b> <b>(1.0%)</b>
<b>Fossil Energy R&amp;D</b>	<b>750,000</b>	<b>727,500</b>	<b>750,000</b>	<b>750,000</b>	--
<b>Cybersecurity, Energy, Security, and Emergency Response</b>	<b>156,000</b>	<b>160,000</b>	<b>156,000</b>	<b>156,000</b>	--
<b>Electricity</b>	<b>190,000</b>	<b>195,000</b>	<b>223,000</b>	<b>211,720</b>	<b>21,720</b> <b>(11.4%)</b>
<b>National Nuclear Security Administration</b>	<b>16,704,592</b>	<b>18,037,617</b>	<b>19,824,200</b>	<b>19,732,200</b>	<b>3,027,608</b> <b>(18.1%)</b>
Weapons Activities	12,457,097	13,659,617	15,602,000	15,345,000	2,887,903 (23.2%)
Defense Nuclear Non-proliferation	2,164,400	2,240,00	2,095,000	2,260,000	95,600 (4.4%)

Source: <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-D.pdf>.

# Department of Health and Human Services



## Department of Health and Human Services

### National Institutes of Health

National Institutes of Health



The omnibus provides a total of \$42.9 billion for the National Institutes of Health (NIH) in FY 2021, an increase of \$1.25 billion, or 3 percent, over the FY 2020 enacted level. This marks the sixth consecutive funding increase for the NIH and reflects strong bipartisan support for the agency.

Within the total appropriation, the omnibus provides \$404 million for specific initiatives in the NIH Innovation Account authorized in the *21<sup>st</sup> Century Cures Act* (Cures; P.L. 115-255), consistent with spending levels enacted in the legislation. This includes \$195 million for the Cancer Moonshot, \$500 million for the All of Us precision medicine initiative (\$109 million from Cures), and \$560 million for the BRAIN Initiative (\$100 million from Cures).

The omnibus provides an increase of \$300 million for Alzheimer's Disease and Related Dementias (ADRD) research, bringing the total investment in ADRD at the NIH to \$3.1 billion. In addition, the bill would provide a total of \$20.5 million to support the Centers for Disease Control and Prevention (CDC) in implementing the *BOLD Infrastructure for Alzheimer's Act*, an increase of \$5 million over FY 2020. The bill provides \$541 million for research related to opioid addiction, non-addictive opioid alternatives, pain management, and addiction treatment at the National Institute on Drug Abuse (NIDA) and the National Institute on Neurological Disorders and Stroke (NINDS) as part of NIH's ongoing Helping to End Addiction Long-term (HEAL) Initiative.

Of note, the omnibus provides \$105 million to support NIH's activities related to artificial intelligence (AI) and machine learning (ML) in biomedicine. Of this amount, \$55 million is directed to the NIH Office for Data Science Strategy (ODSS) to coordinate activities on ethics, bias, and training around the use of AI and ML in biomedicine. The remaining \$50 million is to support NIH's recently launched Artificial Intelligence for Biomedical Excellence (AIBLE) Initiative, which is designed to use AI and ML to accelerate the pace of biomedical innovation in the treatment of chronic disease.

Consistent with prior years, the omnibus provides \$50 million for biomedical research facilities grants to expand, remodel, or renovate research infrastructure (awarded using NIH's C06 grant mechanism). The omnibus provides \$396.5 million for the research capacity building Institutional Development Awards (IDeA) program, an increase of \$10 million over FY 2020 enacted levels. The omnibus provides an increase of \$9 million to the National Center for Advancing Translational Sciences (NCATS) Clinical and Translational Science Awards (CTSA) program, bringing total funding for the program to \$587 million in FY 2021. Within the National Institute of Allergy and Infectious Diseases (NIAID), the bill provides \$220 million for research to develop a universal influenza vaccine. The Committee would provide \$12.5 million for firearm injury and mortality research in FY 2021.

Of note, the bill would retain the investigator salary cap at Executive Level II (\$197,300), rejecting the Administration’s proposal to lower the cap to Executive Level V (\$160,100). Additionally, the bill once again includes legislative language prohibiting the Administration or HHS from making any changes to facilities and administrative (F&A) cost policies. The report language accompanying the omnibus notes that the NIH must take a more active role in addressing sexual harassment in science and directs the agency to submit to Congress a plan outlining NIH’s sexual harassment prevention and intervention efforts for grantees. In addition, the report language reinforces Congress’ ongoing concerns regarding foreign threats to the NIH research enterprise and directs the agency to provide \$5 million to the HHS Inspector General to continue investigations into this issue.

**National Institutes of Health**  
*(in thousands of \$)*

	FY 2020 Enacted	FY 2021 House	FY 2021 Senate	Omnibus	FY 2020 enacted vs. Omnibus
<b>NIH, Total</b>	<b>41,684,000</b>	<b>46,959,000*</b>	<b>43,684,000</b>	<b>42,934,000</b>	<b>1,250,000 (3.0%)</b>
<b>National Cancer Institute (NCI)</b>	6,245,442	6,494,155	6,722,656	6,364,852	119,410 (1.9%)
<b>National Heart, Lung, and Blood Institute (NHLBI)</b>	3,624,258	3,655,428	3,728,307	3,664,811	40,553 (1.1%)
<b>National Institute of Dental and Craniofacial Research (NIDCR)</b>	477,429	481,535	493,234	484,867	7,438 (1.6%)
<b>National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)</b>	2,114,314	2,132,498	2,196,021	2,131,975	17,661 (0.8%)
<b>National Institute of Neurological Disorders and Stroke (NINDS)</b>	2,374,687	2,465,110	2,526,245	2,463,393	88,706 (3.7%)
<b>National Institute of Allergy and Infectious Diseases (NIAID)</b>	5,885,470	6,013,087	6,142,540	6,069,619	184,149 (3.1%)
<b>National Institute of General Medical Sciences (NIGMS)</b>	2,937,218	2,972,479	3,046,962	2,991,417	54,199 (1.8%)
<b>Eunice Kennedy Shriver National Institute of Child Health and</b>	1,556,879	1,570,269	1,657,606	1,590,337	33,458 (2.1%)

<b>Human Development (NICHD)</b>					
<b>National Eye Institute (NEI)</b>	824,090	831,177	850,135	835,714	11,624 (1.4%)
<b>National Institute of Environmental Health Sciences (NIEHS)</b>	802,598	809,501	828,733	814,675	12,077 (1.5%)
<b>National Institute on Aging (NIA)</b>	3,543,673	3,609,150	4,015,333	3,899,227	355,554 (10.0%)
<b>National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)</b>	624,889	630,263	645,237	634,292	9,403 (1.5%)
<b>National Institute on Deafness and Other Communications Disorders (NIDCD)</b>	490,692	494,912	506,670	498,076	7,384 (1.5%)
<b>National Institute of Mental Health (NIMH)</b>	1,968,374	2,055,303	2,139,491	2,053,708	85,334 (4.3%)
<b>National Institute on Drug Abuse (NIDA)</b>	1,462,016	1,474,590	1,505,192	1,479,660	17,644 (1.2%)
<b>National Institute on Alcohol Abuse and Alcoholism (NIAAA)</b>	545,373	550,063	564,498	554,923	9,550 (1.8%)
<b>National Institute on Nursing Research (NINR)</b>	169,113	170,567	177,976	174,957	5,844 (3.5%)
<b>National Human Genome Research Institute (NHGRI)</b>	606,349	611,564	623,862	615,780	9,431 (1.6%)
<b>National Institute of Biomedical Imaging and Bioengineering (NIBIB)</b>	403,638	407,109	417,815	410,728	7,090 (1.8%)
<b>National Institute on Minority Health and Health Disparities (NIMHD)</b>	335,812	343,700	391,747	390,865	55,053 (16.4%)
<b>National Center for Complementary and Integrative Health (NCCIH)</b>	151,740	153,045	156,823	154,162	2,422 (1.5%)

<b>National Center for Advancing Translational Sciences (NCATS)</b>	832,888	840,051	890,009	855,421	22,533 (2.7%)
<b>John E. Fogarty International Center (FIC)</b>	80,760	86,455	83,460	84,044	3,284 (4.0%)
<b>National Library of Medicine (NLM)</b>	456,911	460,841	471,789	463,787	6,876 (1.5%)
<b>Office of the Director (OD)</b>	2,239,787	2,324,548	2,390,659	2,411,110	171,323 (7.6%)
<b>Building Facilities</b>	200,000	200,000	200,000	200,000	-

Source: <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-H.pdf>.

## Other Agencies Within HHS

Department of Health and Human Services (Other)



The Department of Health and Human Services (HHS) will receive \$97 billion in appropriations in FY 2021, an increase of \$2.1 billion over the FY 2020 enacted level. The final bill will provide increases to several programs within HHS of importance to academic communities, including a \$1.25 billion increase for the National Institutes of Health (NIH) and a 3 percent increase in funding for Title VII Health Professions and Title VIII Nursing Workforce Development Programs at the Health Resources and Services Administration (HRSA). In an attempt to address healthcare workforce shortages, the omnibus will also remove regulations around Graduate Medical Education (GME), which may pave the way for ending a nearly 25-year freeze on Medicare-supported residency slots in the nation. The omnibus will also provide funding for programs around with congressional support, such as a new pilot program to study social determinants of health in an attempt to address health disparities, programs to address Alzheimer’s disease, and efforts to alleviate mental health and substance use disorders. Beyond appropriations, the package also includes several provisions impacting healthcare providers and teaching hospitals, including a ban on surprise medical billing, the continuation of several healthcare extenders, and a delay on Medicaid Disproportionate Share Hospital (DSH) payments for fiscal years 2022 and 2023. Additionally, the omnibus will provide a three-month extension of the moratorium on 2% Medicare sequester cuts.

The **Centers for Disease Control and Prevention (CDC)** will receive \$7.8 billion, a \$130 million increase above the FY 2020 level. This total includes \$6.9 billion in discretionary funding, and approximately \$856 million in transfers from the Prevention and Public Health Fund. Given the current state of the COVID-19 pandemic in the U.S., the bill highlights CDC’s role in enhancing awareness and knowledge around the safety and effectiveness of vaccines through resources housed within its National Center for Immunization and Respiratory Diseases. In total, the bill provides \$448 million toward immunization and respiratory diseases. The Committee also includes funding to establish a pilot program to study social determinants of health, and increased funding for the Racial and Ethnic Approaches to Community Health (REACH) Program. The bill will also:

- Provide \$13 million to strengthen surveillance and better understand linkages between infectious diseases and the opioid epidemic;
- Provide \$40 million to support state and local health departments through the

Epidemiology and Laboratory Capacity Program, to address current and future public health threats;

- Provide \$42 million for CDC's vector-borne diseases program, and \$16 million to combat the rising cases of tick-borne diseases;
- Provide \$20.5 million to support Alzheimer's Disease programs, specifically provisions in the *BOLD Infrastructure for Alzheimer's Act*, which established an Alzheimer's and Related Dementias Public Health Centers of Excellence program;
- Provide \$12.5 million for research on firearm injury and mortality, the same level of funding as provided in FY 2020;
- Flatly fund several CDC programs of importance to universities including: the Academic Centers for Public Health Preparedness Program, which will receive \$8.2 million; the Prevention Research Centers Program, which will receive \$27 million; and the Education and Research Centers, which will receive \$30 million; and,
- Provide \$592 million to support CDC's global health work to detect, prevent, and respond to infectious diseases, as well as other global threats.

The **Health Resources and Services Administration's (HRSA)** will receive \$7.5 billion, which is \$151 million above the FY 2020 level. Within HRSA, the Bureau of Health Workforce (BHW) will receive \$1.2 billion, an increase of \$30 million above FY 2020. The BHW's Title VII Health Professions and Title VIII Nursing Workforce Development Programs will receive a combined total of \$754 million, which is a \$19.5 million increase above the FY 2020 level. More specifically, the final bill will provide increased funding amounts for the following Title VII and VIII programs:

- \$112 million for the Behavioral Health Workforce Education and Training (BHWET) program, which is a \$10 million increase above the FY 2020 level;
- \$46.9 million for the Nurse Education, Practice, and Retention program, which is a \$3 million increase above the FY 2020 level;
- \$43.3 million for the Area Health Education Centers (AHEC), which is a \$2 million increase above the FY 2020 level;
- \$42.7 million for the Geriatrics Programs, which includes the Geriatrics Workforce Enhancement Program (GWEP) and the Geriatrics Academic Career Award (GACA) program, which is a \$2 million increase above the FY 2020 level; and,
- \$19.8 million for the Nursing Workforce Diversity program, which is a \$1.5 million increase above the FY 2020 level.

Several Title VII and Title VIII programs will also receive flat funding, including \$51.4 million for the Scholarships for Disadvantaged Students program, \$75 million for the Advanced Education Nursing Program, \$28.5 million for the Faculty Loan Repayment Program, and \$120 million for the National Health Service Corps. The agreement will also continue funding for HRSA's Rural Communities Opioid Response program, which is level funded at \$110 million and urges HRSA to further support training on best practices in opioid prescribing, screening, pain management, and other care factors. Additional priorities highlighted by the Committee include better assessment of the Alzheimer's provider workforce; efforts to end HIV, including \$102 million to support the Ending the HIV Epidemic initiative, and activities to bolster telehealth through the Telehealth Centers of Excellence program which will receive \$6.5 million, a slight increase above the previous year's enacted level. The bill will also provide \$1.7 billion to community health centers, which is an increase of \$57 million above the FY 2020 level.

The bill will provide just over \$6 billion for the **Substance Abuse and Mental Health Services Administration (SAMHSA)**, an increase of \$133 million over the FY 2020 enacted level. The bill provides a 6.8 percent increase (\$1.792 billion in total funding) for the Center for Mental Health Services (CMHS), as well as more moderate increases of 0.4 percent (\$3.885 billion in total funding) to the Center for Substance Abuse Treatment (CSAT) and 1.0 percent (\$208 million in total funding) to the Center for Substance Abuse Prevention (CSAP). Within SAMHSA, the bill will provide approximately \$1.6 billion for the Substance Abuse and Prevention Treatment Block Grant, the same level as FY 2020; \$600 million for the Certified Community Behavioral Health Clinic Expansion Grant Program; and \$1.5 billion for State Opioid Response Grants, \$85 million under the FY 2020 enacted level. The bill will also:

- Provide \$16 million for the Minority Fellowship Program (MFP), which aims to increase the number of racial and ethnic minorities working in behavioral health fields;
- Provide \$50 million for SAMHSA's Project AWARE program, which provides grants for improvement of mental health literacy among teachers and other youth-facing professionals, including \$12.5 million for grants to high-crime, high-poverty areas to address root causes of civil unrest and community violence;
- Provide \$23.2 million for the National Strategy for Suicide Prevention;
- Provide a \$4 million increase for the Comprehensive Opioid Recovery Centers program;
- Provide \$6 million to hospitals and emergency departments under the Emergency Departments Alternatives to Opioids program;
- Encourage SAMHSA to prioritize States that support best-practice collaborative models for the treatment and support of pregnant women with opioid use disorders; and
- Continue to include a 10 percent set-aside for an early intervention demonstration program "with persons not more than 25 years of age at clinical high risk of developing a first episode psychosis."

The bill will also provide \$338 million to the **Agency for Healthcare Research and Quality (AHRQ)**, which is the same as the FY 2020 level. The agreement calls for several specific reports and access to prenatal care for expectant mothers.

For the first time in several fiscal years, the **Office of the National Coordinator for Health IT (ONC)** will receive a modest increase of \$2 million and will be funded at \$62 million. The Committee notes that this increase in funding is intended for "interoperability and information sharing efforts related to the implementation of Fast Healthcare Interoperability Resources (FHIR) standards or associated implementation standards." The report language also leaves the door open for ONC to examine patient matching and to provide "technical assistance" to private sector initiatives focused on this topic. The final bill also notes that it is still expecting ONC to complete and send the relevant congressional committees a report from the FY 2020 appropriations agreement on "patient matching."

Further, the bill will provide \$596.7 million to the **Biomedical Advanced Research Development Authority (BARDA)**, an increase of \$35 million over FY 2020 levels. As in the Senate's version of the bill, the Committee encourages BARDA to continue proactive preparation for infectious disease outbreaks and investment in rapid screening technology; fund development of multi-use diagnostic testing platforms; and support development of new tuberculosis diagnostic tests and therapeutics.

Additionally, the bill will provide level funding of \$3.7 billion to the **Centers for Medicare and Medicaid Services (CMS)** for program management and administrative costs. Specifically, the bill will:

- Encourage CMS to consider pilot programs using AI-enabled documentation and coding technology to address program integrity priorities and reduce administrative burdens;
- Encourage CMS to study the potential efficacy and benefits of continuous physiologic electronic monitoring of all patients taking opioids in the hospital;
- Encourage CMS to work to ensure beneficiary access to the full continuum of care for obesity, including access to FDA-approved anti-obesity medications under Medicare Part D;
- Direct CMS to build upon its 2016 Joint Informational Bulletin to clearly articulate how Medicaid dollars can be appropriately used in home visiting programs to reach eligible families;
- Encourages CMS to take further steps to reduce patients' out-of-pocket costs in Medicare Part D;
- Direct CMS to study and propose solutions that will allow vulnerable hospitals serving rural and underserved populations to receive relief in the near-term;
- Extend the moratorium on the 2 percent Medicare sequester cuts by 3 months, and mitigate scheduled cuts for a number of specialties in the calendar year (CY) 2021 Physician Fee Schedule; and
- Eliminate the current Medicaid Disproportionate Share Hospital (DSH) payment reductions in effect for FY 2021, and eliminate the reductions for FY 2022 and FY 2023.

#### **Surprise Billing and Healthcare Extenders**

The bill will provide protection for patients from a practice known as surprise billing. Under the final bill, patients will only be responsible for the in-network cost sharing amount for out-of-network emergency and ancillary care, or other out-of-network care the patient did not provide consent for. Providers and payors will receive a 30-day negotiation period to settle any disputed claim. If there is no agreement, either party may access a binding arbitration process. The bill also states that insurers must disclose both in-network and out-of-network deductibles and maximum out-of-pocket costs for in-network and out-of-network services.

The bill will also provide for extensions of policy within the Medicare and Medicaid programs. Among other items, the bill will:

- Extend the work geographic index floor;
- Allow hospitals to host a limited number of residents for short-term rotations without being impacted by the set full-time equivalent resident cap, or a per resident amount;
- Extend funding for outreach and assistance for low-income programs;
- Extend the Independence at Home medical practice demonstration program;
- Improve quality measurement under the skilled nursing facility value-based purchasing program;
- Expand access to mental health services through telehealth;
- Provide MEDPAC and MACPAC access to drug payment and rebate information;
- Freeze the current payment and patient count thresholds for physicians and other eligible clinicians that participate in Advanced Alternative Payment Models to receive a 5 percent incentive payment in 2023 and 2024. Payments will be based on data collected in 2021 and 2022;

- Permanently authorize the Limited Income Newly Eligible Transition demonstration that provides transitional and retroactive Part D coverage for individuals who receive low-income subsidies;
- Extend protections through FY 2023 against spousal impoverishment for partners of Medicaid beneficiaries who receive home and community-based services;
- Restore Medicaid coverage for citizens of the Freely Associated States, who lawfully reside in the United States under the Compacts of Free Association; and
- Require states cover nonemergency transportation for Medicaid beneficiaries in need of necessary services.

### Department of Health and Human Services (Other)

(In millions of \$)

	FY 2020 Enacted	FY 2021 House	FY 2021 Senate	FY 2021 Omnibus	Omnibus vs. FY 2020 Enacted
<b>Health Resources and Services Administration (HRSA)</b>	<b>7,333</b>	<b>7,471</b>	<b>7,380</b>	<b>7,484</b>	<b>151 (2.1%)</b>
Title VII	475	513	485	490	15 (3.2%)
Title VIII	260	270	266	264	4 (1.5%)
<b>Substance Abuse and Mental Health Services Administration (SAMHSA)</b>	<b>5,882</b>	<b>5,987</b>	<b>6,000</b>	<b>6,016</b>	<b>134 (2.3%)</b>
Mental Health Services	1,676	1,761	1,773	1,792	114 (6.8%)
Substance Abuse Treatment	3,839	3,848	3,860	3,855	17 (0.4%)
Substance Abuse Prevention	206	209	206	208	2 (1.0%)
<b>Agency for Healthcare Research and Quality (AHRQ)</b>	<b>338</b>	<b>343</b>	<b>257</b>	<b>338</b>	<b>--</b>
<b>Centers for Disease Control and Prevention (CDC)</b>	<b>7,694</b>	<b>7,925</b>	<b>7,880</b>	<b>7,819</b>	<b>125 (1.6%)</b>
Chronic Disease Prevention and Health Promotion	1,240	1,306	1,250	1,277	37 (3.0%)
National Institute for Occupational Safety and Health (NIOSH)	343	345	344	345	2 (0.6%)
Environmental Health	214	237	204	223	9 (4.2%)
<b>Administration on Community Living (ACL)</b>	<b>2,251</b>	<b>2,225</b>	<b>2,263</b>	<b>2,286</b>	<b>35 (1.6%)</b>

National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR)	112	112	114	113	1 (0.9%)
<b>Administration for Children and Families (ACF)</b>	<b>39,523</b>	<b>41,256</b>	<b>41,000</b>	<b>41,190</b>	<b>1,667 (4.2%)</b>
Office of the National Coordinator for Health IT (ONC)	60	60	60	62	2 (3.3%)
<b>Biomedical Advanced Research and Development Authority (BARDA)</b>	<b>562</b>	<b>562</b>	<b>612</b>	<b>597</b>	<b>35 (6.2%)</b>

Source: <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-H.pdf>.



## Department of Homeland Security

The Department of Homeland Security (DHS) will receive \$69.9 billion in discretionary funding in the omnibus bill, which is \$1.8 billion (2.7 percent) above the FY 2020 enacted level and \$15.1 billion more in discretionary funding than the President's budget request. However, a House summary of the bill notes that when excluding offsetting collections and major disaster funding, the total provided is \$1.4 billion above the FY 2020 enacted level and \$195.5 million below the President's budget request. The final bill marks significant compromises on partisan disagreements over immigration investments. A notable compromise is that, unlike the bill from the Democratic-controlled House, the final measure will provide nearly \$1.4 billion for the border wall and funding for Immigration and Customs Enforcement (ICE) detention beds, but with less funding than what the Administration had requested. Since President Trump took office, this has been one of the most contentious annual appropriations measures largely due to partisan disagreement over immigration enforcement. It is uncertain whether there will be more room for bipartisan compromise under the next Administration.

The omnibus bill provides \$765.6 million for **Science and Technology (S&T)**, which is \$28.3 million above the FY 2020 enacted level, \$121.8 million above the President's budget request, and more than both the House and Senate bills. The package provides \$44.5 million in funding for the **Office of University Programs (OUP)** to support the DHS Centers of Excellences (COEs) and Minority Serving Institutions. This is an increase of more than \$4 million above the FY 2020 enacted level and nearly \$22.8 million above the budget request, but nearly \$2.3 million below the House bill. This will be the first increase for OUP funding in several years. The bill also echoes calls from the House and Senate versions of the bill for OUP to work with the with Cybersecurity and Infrastructure Security Agency (CISA) to explore the feasibility of launching a new COE on Election Security and report back to the appropriations committees in 90 days.

Moreover, the omnibus adopts language from the House bill that calls on S&T to report on the proposed allocation of funds by project and update the committees on any changes. The language encourages S&T to consider research priorities outlined in the House bill before directing specific funding amounts for R&D related to the topics below, almost all of which match funding amounts in the Senate appropriations bill. Topics that appear in both the House and Senate bills are italicized.

- *No less than \$29.5 million for Cyber Data Analytics; \$35.9 million for research on Counter-Unmanned Aerial Systems (C-UAS); and \$2 million for S&T to continue engagement in a bi-national research and development pilot.*
  - S&T is directed to work with other agencies and universities to evaluate C-UAS research and development and federal policies related to UAS misuse. S&T is encouraged to prioritize working with Federal Aviation Administration (FAA) UAS test ranges on this project.

- Up to \$6 million for data visualization and emerging analytics that can enhance tracking for cargo and people.
- *Up to \$5 million for the “development of a multi-purpose, high yield active neutron interrogation system.”*
- *Up to \$11.5 million to research and develop wind and solar powered unmanned vessels with surface and subsurface capabilities.*
- *Up to \$2.5 million to establish a maritime port resiliency and security research testbed.*
- Up to \$7 million for Partnership Intermediary Agreements (PIAs). The Senate bill language encourages these PIAs to support technology transfer.
- *Up to \$2 million to develop thermoplastic composite materials that improve sensor integration.*
- *Up to \$10 million for an initial demonstration of a Secure Hybrid Composite Intermodal Container.*
- Up to \$9 million for the development of new non-intrusive inspection (NII) technologies.
- Up to \$15.4 million for Explosives Threat Assessment. In the Senate bill, this line included continued partnerships between S&T and other federal research entities like the FBI’s Terrorist Explosive Device Analysis Center.
- Up to \$1.5 million to collaborate with Homeland Security Investigations (HSI) and a university partner. This likely refers to HSI’s partnership with Marshall University.
- Up to \$15.3 million for the Detection Canine Program.
- Up to \$4 million for the UAS Demonstration Site.
- Up to \$5 million for “self-adapting security mechanisms that utilize data analytics-driven scoring to measure weaknesses in software design.”
- Up to \$2 million for S&T to “continue working with a university partner to evaluate cybersecurity training materials and the social and behavioral impacts on protecting local law enforcement entities and their respective operations.”
- Up to \$5 million for S&T to “enter into an Educational Partnership Agreement with the US Army Corps of Engineers, academic partners, and relevant federal agencies to develop capabilities to improve the integrity of dams and levees.”
- Up to “\$1.5 million above the request to collaborate with the Army’s Engineer Research Development Center and its university partners” to “address identified technological needs and requirements for Soft Target and Crowded Spaces protection.”
- Up to \$6 million to bolster national testing capacities to “assess vulnerabilities and mitigate biological risks in building air and water handling systems, multi-building facilities, and waste water systems.”
- Explore the feasibility of a multi-agency pilot for public broadcasters to demonstrate datacasting technologies, a stated priority in the House bill.

In addition to research provisions, the bill encourages the agency to leverage up to \$10 million provided to CISA for cybersecurity workforce development and training to partner with academic institutions to address the nation’s shortfall of cybersecurity professionals, as well as \$2.5 million for CISA to support “National Institute of Standards and Technology (NIST), National Initiative for Cybersecurity Education Challenge project or for similar efforts to address shortages in the cybersecurity workforce through the development of content and curriculum” for universities. Finally, the bill urges the Secretary to establish a new advisory body with representatives from universities and education associations. This codifies House language that lamented the termination of the Homeland Security Academic Advisory Council.

*Sources and Additional Information:*

- The explanatory statement is available at <https://www.appropriations.senate.gov/imo/media/doc/Division%20F%20-%20Homeland%20Security%20Statement%20FY21.pdf>.
- The House summary of the bill is at <https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/Summary%20of%20H.R.%20133%20Appropriations%20Provisions.pdf>.

# Department of Justice



## Department of Justice

The U.S. Department of Justice (DOJ) will receive approximately \$33.8 billion in FY 2021, an increase of nearly \$1.2 billion above the FY 2020 enacted level and \$874.4 million above the budget request. Key research accounts at DOJ will also receive a slight funding increase under the agreement. For example, the National Institute of Justice (NIJ), DOJ's primary external research program that leverages university partnerships with the goal of strengthening science and enhancing justice, will receive \$37 million in FY 2021, \$1 million above the FY 2020 enacted level.

The bill sets aside funding for several specific topics within the NIJ budget, including: \$6 million for research on domestic radicalization, \$1 million above the FY 2020 enacted level; \$1 million for research on school safety; \$1.5 million for research on best practices to reduce trauma for minors effected by child pornography investigations; \$2 million for research on Counter Unmanned Aircraft Systems (C-UAS) to be conducted at Federal Aviation Administration-designated UAS Test Sites; and \$4 million for grants with academic partners to design and test models for reducing incarceration rates for minor parole violations. The bill further encourages research on the effects of human trafficking and the impact of the interruption of health care coverage in pre-trial settings.

The bill also provides funding for a number of university-supported partnerships, including the development of undergraduate programming for child and family-serving professionals on methods to identify and screen children for exposure to violence; the establishment of a National Center on Forensics to train future practitioners; the continuation of funding for a National Center on Restorative Justice; and "multi-year grants to educational institutions that have shown excellence in criminal justice data-driven analysis and decision-making, implementation science, and training" to increase "utilization of data interventions proven effective and backed by research findings at the state and local level" and to develop "systems to standardize courts and corrections data."

The legislation notably marks a significant compromise between the Senate and House bills regarding policing reform, as the bill addresses policing misconduct while largely rejecting major provisions included in the House measure, such as tying state and local funding for law enforcement to conditions like banning chokeholds and ensuring investments in training in areas like de-escalation and racial profiling. Instead, the bill will provide significant resources for policing measures, including \$67 million above the FY 2020 enacted level for local police training programs and grants, \$5 million to implement a Task Force on Law Enforcement Oversight, in which experts and stakeholders "coordinate the process of the detection and referral of complaints regarding incidents of alleged law enforcement misconduct," \$7.5 million for officer training to respond to people with mental disabilities, as well as support for the development of national law enforcement accreditation standards and evidence-based training for civil rights protection, de-escalation, and use-of-force.

Source: The explanatory statement is available at <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-B.pdf>.

## Department of Labor



### Department of Labor

The Department of Labor (DOL) will receive \$13.9 billion in funding, which is \$120 million more than in FY 2020. The bill will support increased investments in several programs that support workforce development efforts at institutions of higher education, including

- \$185 million for apprenticeship programs, an increase of \$10 million compared to FY 2020;
- \$45 million for the Strengthening Community College Training Grants (SCCTG) program; and
- \$35 million to be split between the Appalachian Regional Commission and the Delta Regional Authority to continue the Workforce Opportunity for Rural Communities grant initiative.



## Environmental Protection Agency

The omnibus will provide the U.S. Environmental Protection Agency (EPA) with \$9.24 billion in FY 2021, which is \$179.8 million or two percent above FY 2020. The largest portion of the additional funding—\$98.2 million—will be allocated to Environmental Programs and Management (EPM) to support increases to Geographic Programs, such as the Great Lakes Restoration Initiative, as well as operations and administration among other EPM accounts. In a rebuke of the Trump Administration’s budget requests, the explanatory report bars the Administration from unilaterally implementing funding reductions, program eliminations, or streamlining activities without congressional support.

EPA’s **Science and Technology (S&T)** account will receive \$729.3 million, an increase of \$12.9 million or 1.8 percent above the FY 2020 enacted level. All S&T research accounts will benefit from the increase, though Homeland Security would receive the largest share. This reflects congressional concern over cybersecurity vulnerabilities to the nation’s water systems as well as the program’s role in supporting research related to COVID-19. The total S&T allocation would also include a \$30.8 million transfer from the Hazardous Substance Superfund account to support ongoing relevant research.

Most relevant to the external research community, the omnibus will provide flat funding of \$28.6 million for **the Science to Achieve Results (STAR)** grant program, EPA’s primary mechanism for funding external research. The explanatory report includes language directing EPA to brief Congress on the viability of both reinstating the STAR Graduate Fellowship program—which was eliminated in 2016 following a consolidation of federal student support programs—and implementing a mechanism for receiving unsolicited proposals from the external research community. Independent of STAR, the omnibus will also provide \$7.5 million for water quality and availability research through the **National Priorities** grants program, \$1.5 million more than in FY 2020.

Within the overall amount for S&T, the omnibus will provide no less than \$20 million for research on **per- and polyfluoroalkyl substances (PFAS)**. The explanatory report adopts a Senate provision directing that funded activities in this area reflect the contents of the agency’s PFAS Action Plan, which identifies research needs in PFAS’ risk to agriculture and rural communities, analytical methods, and PFAS toxicity and effects. Additional S&T provisions focus on research pertaining to enhanced aquifer recharge, microplastics, harmful algal blooms, and water distribution systems.

Finally, the explanatory report also reiterates a mandate, initially included in the FY 2020 omnibus, for EPA to meet several reporting requirements and complete assessments related to its proposed rule entitled **Strengthening Transparency in Regulatory Science**, which would require EPA to only use publicly available research data to formulate new regulatory policy. Specifically, the language in the omnibus requires EPA to address the full range of concerns expressed by the Science Advisory Board before carrying out the rule. EPA would then be directed to contract with the National Academy of Sciences to assess the rule’s impact on the agency’s regulatory agenda.

## Institute of Museum and Library Services



### **Institute of Museum and Library Services**

The Institute for Museum and Library Services (IMLS) will receive \$257 million in FY 2021, an increase of \$5 million over FY 2020 levels. As in previous years, the omnibus rejects the President's budget request to eliminate this agency. The final bill also provides \$500,000 for the Reopening Archives, Libraries, and Museums program.



## International Programs—State Department and USAID

The Department of State, Foreign Operations, and Related Programs (SFOPS) bill included in the omnibus package will provide a total of \$60.9 billion in funding, including \$47.7 billion in base discretionary spending and \$8.4 billion in Overseas Contingency Operations (OCO) funding. This bill funds the Department of State (DOS), the United States Agency for International Development (USAID), and other international programs.

The base discretionary funding level is an increase of \$2.8 billion (6.2 percent) over the Presidential request and \$628 million (1.3 percent) above the fiscal year (FY) 2020 enacted level. The SFOPS bill also provides an additional \$5.2 billion in emergency appropriations, of which \$4 billion is for COVID-19 relief in the form of additional funding for Global Health Programs to “prevent, prepare for, and respond to coronavirus, including for vaccine procurement and delivery” to be administered by USAID, inclusive of the U.S. contribution to Global Alliance for Vaccines and Immunisation (the GAVI Alliance).

Reflecting both the House and Senate’s strong commitment to U.S. leadership in international affairs, the final appropriation deal rejects the Trump Administration’s proposed cuts to nearly all international programs and multilateral institutions. In addition, the bill and accompanying explanatory statement includes language focused on personnel, oversight, and accountability at the U.S. Department of State, as well as at USAID, and requests reports to Congress to monitor personnel levels, hiring, and attrition of the workforce. The bill also includes increased funding for workforce diversity initiatives.

Of interest to the research and higher education community, the bill and accompanying explanatory statement provides:

- **\$740.3 million for educational and cultural exchange programs**, an increase of \$9.6 million (1.3 percent) relative to the FY 2020 enacted level. **The Fulbright program** will be funded at \$274 million, \$1 million above the FY 2020 level to “increase the participation of Historically Black Colleges and Universities [HBCUs] in the Fulbright HBCU Institutional Leaders Initiative and to increase Fulbright awards for individuals coming from or hosted by other minority serving institutions.”
- **\$9.195 billion for global health programs**, an increase of \$161.05 million (1 percent) above the FY 2020 enacted level, excluding the \$4 billion in COVID-19 relief provided as emergency appropriations. This funding envelope includes: \$150 million to support research and other programmatic work to combat antimicrobial resistance, \$102.5 million for research on neglected tropical diseases, as well as ability to allocate discretionary funds to research and development through programs on malaria, HIV/AIDS, nutrition, maternal and child health, family planning and reproductive health. The explanatory statement includes language to support USAID’s continued efforts on vaccine development for malaria and HIV/AIDS and to undertake vaccine development efforts to prevent and respond to infectious disease outbreaks. The final bill includes

\$190 million “to accelerate the capacity of targeted countries to prevent, detect, and respond to zoonotic and other infectious disease outbreaks” and requests that USAID develop a comprehensive strategy, in consultation with other agencies, to implement this funding. The bill also provides that USAID funds should be available “to support the collection and analysis of data on unknown viruses and other pathogens and to support . . . a coordinating mechanism for the sharing of data with other countries”

- **\$1.01 billion for Food Security and Agricultural Development**, including \$150 million for research and development and **\$55 million for the Feed the Future Innovation Labs**. This is flat funding compared to the FY 2020 enacted level and the same as proposed by the House. The report language encourages USAID to continue partnering with land grant institutions of higher learning with specialized capability in agriculture research to assist developing countries to improve food production.
- **\$320 million for biodiversity programs**, \$5 million (1.5 percent) above the FY 2020 enacted level.
- **\$491 million for climate change programs**, including \$135 million for sustainable landscapes, \$177 million for adaptation programs and \$179 million for renewable energy programs, all equal to the FY 2020 enacted level and \$491 million above the President’s budget request.
- **\$75 million for oceans plastic pollution**. While it is unclear how much of these funds will support **marine research**, the agreement supports efforts by the United States research institutions to “partner with marine science researchers in developing countries that are highly dependent on ocean health and biodiversity and vulnerable to the impacts of climate change” and instructs USAID to “prioritize projects that utilize existing research partnerships.”

### Selected Programs in Department of State, Foreign Operations, and Related Programs

*(In thousands of \$)*

	FY 2020 Enacted	FY 2021 House	FY 2021 Senate	FY 2021 Omnibus	FY 2021 Final vs. FY 2020 Enacted
<b>Total</b>	<b>57,210,000</b>	<b>65,870,000</b>	<b>55,320,000</b>	<b>60,933,900</b>	<b>3,723,900 (6.5%)</b>
Global Health Programs	9,092,450	11,660,000	9,253,500	9,195,950	103,500 (1.1%)
Emergency COVID-19 Appropriation	--	10,000,000	0	4,000,000	--
Environment Programs	906,700	1,306,000	1,060,575	1,280,639	373,939 (41.2%)
Food Security and Agricultural Development	1,005,600	1,005,600	1,005,600	1,010,600	5,000 (0.4%)
Education and Cultural Exchange Programs	730,700	740,000	731,575	740,300	9,600 (1.3%)

Source: The explanatory statement is available at [BILLS-116RCP68-JES-DIVISION-K.pdf](#).



## National Aeronautics and Space Administration

The National Aeronautics and Space Administration (NASA) will receive \$22.63 billion in FY 2021, an increase of \$642.28 million or 2.8 percent over the FY 2020 enacted level.

Congress remains supportive of NASA missions and programs across the **Science Mission Directorate (SMD)**, funding it at \$7.3 billion in FY 2021, an increase of \$162 million or 2.3 percent above FY 2020. As in years past, missions slated for cancellation in the budget request are fully funded. This includes PACE (\$145.1 million), CLARREO Pathfinder (\$24.5 million), the Carbon Monitoring System program (\$10 million), and the Roman Space Telescope (\$505.2 million). Notably, the legislation frees NASA from a congressionally imposed mandate to fly Europa Clipper (funded at \$403.5 million) on the agency's next generation Space Launch System (SLS) rocket.

The agreement also highlights ongoing support for competitively selected, PI-led mission lines such as Earth Venture Class Missions (\$263.3 million), Planetary Science's New Frontiers (\$183.2 million), and Heliophysics Explorers (\$173.4 million). SMD research and technology programs is funded above requested levels, including \$334.9 million for Earth Science Research and Analysis (\$25 million above the request), \$17.5 million for Icy Satellites Surface Technology, and support for a new technology program within the Heliophysics Division.

The **Mars Exploration Program (MEP)** within PSD will receive \$570 million. The Mars Sample Return (MSR) mission – approved last week for Phase A development – is funded at \$263.5 million.

The omnibus provides the **Heliophysics Division (HPD)** with \$751 million in FY 2021, an increase of \$26.5 million or 3.7 percent over the FY 2020 enacted level. Consistent with recent years, the explanatory report adopts Senate language allocating funding and support for priorities outlined in the *Solar and Space Physics* decadal survey. These include an accelerated cadence of Explorer missions, implementation of the DRIVE initiative, and continued formulation and development of recommended missions including IMAP, DYNAMIC, and GDC. In addition, the bill provides \$25 million for the Space Weather Science and Applications program.

The **Space Technology Mission Directorate (STMD)** will receive \$1.1 billion, equal to the FY 2020 enacted level. In keeping with prior years, Congress again rejects the Administration's strategy to de-emphasize STMD's mission of addressing crosscutting technology gaps and instead re-orient its funding towards human exploration activities. Within the topline amount, the omnibus provides funding for activities associated with nuclear thermal propulsion, solar electric propulsion, additive manufacturing, satellite servicing, innovative nanomaterials, the Regional Economic Development program, the Flight Opportunities program, and the on-surface manufacturing capabilities.

The bill provides the Senate-proposed level of \$828.7 million for NASA’s **Aeronautics Research Directorate (ARMD)**, a \$44.8 million or 5.6 percent increase above FY 2020. The agreement reflects the Senate’s support for the University Leadership Initiative (ULI) program and advanced materials research while providing \$60 million for hypersonics technologies as proposed in the House mark.

Consistent with the four prior fiscal years, the minibus would reject the Administration’s proposal to eliminate the **Office of STEM Engagement**. The Office is funded at \$127 million, within which \$51 million would be directed to Space Grant, \$4 million above FY 2020. In addition, the explanatory statement mandates that each of the 52 Space Grant Consortia be allocated no less than \$760,000.

### National Aeronautics and Space Administration

*(In thousands)*

	FY 2020 Enacted	FY 2021 House	FY 2021 Senate	FY 2021 Omnibus	Omnibus vs. FY 2020 Enacted
<b>NASA, total</b>	<b>22,559,000</b>	<b>22,269,000</b>	<b>23,495,000</b>	<b>23,271,278</b>	<b>642,278 (2.8%)</b>
<b>Science</b>	<b>7,138,900</b>	<b>7,097,500</b>	<b>7,274,700</b>	<b>7,301,000</b>	<b>162,100 (2.3%)</b>
Earth Science	1,971,800	2,021,800	1,984,400	2,000,000	28,200 (1.4%)
Planetary Science	2,713,400	2,713,400	2,674,300	2,700,000	-13,400 (0.5%)
Astrophysics	1,306,200	1,306,200	1,346,200	1,356,200	50,000 (3.8%)
James Webb Space Telescope	423,000	423,000	414,700	414,700	-8,300 (2.0%)
Heliophysics	724,500	633,100	776,000	751,000	26,500 (3.7%)
Biological and Physical Sciences	-	-	79,100	79,100	79,100 (100%)
Education and Public Outreach (EPO)	45,000	N/A	N/A	45,600	-
<b>Aeronautics</b>	<b>783,900</b>	<b>819,000</b>	<b>828,700</b>	<b>828,700</b>	<b>44,800 (5.7%)</b>
<b>Space Technology</b>	<b>1,100,000</b>	<b>1,100,000</b>	<b>1,206,000</b>	<b>1,100,000</b>	<b>-</b>
<b>Exploration</b>	<b>6,017,600</b>	<b>6,017,600</b>	<b>6,706,400</b>	<b>6,555,400</b>	<b>537,800 (8.9%)</b>
<b>Space Operations</b>	<b>4,140,200</b>	<b>4,052,200</b>	<b>3,988,200</b>	<b>3,988,200</b>	<b>-152,000 (3.7%)</b>
<b>STEM Engagement</b>	<b>120,000</b>	<b>126,000</b>	<b>120,000</b>	<b>127,000</b>	<b>7,000 (5.8%)</b>
Space Grant	48,000	50,000	48,000	51,000	3,000 (6.3%)
EPSCoR	24,000	26,000	24,000	26,000	2,000 (8.3%)
MUREP	36,000	38,000	36,000	38,000	2,000 (5.6%)
<b>Safety, Security, &amp; Mission Services</b>	<b>2,913,300</b>	<b>2,953,400</b>	<b>2,936,500</b>	<b>2,936,500</b>	<b>23,200 (0.8%)</b>

<b>Construction and Environmental Compliance and Restoration</b>	<b>373,400</b>	<b>419,100</b>	<b>390,300</b>	<b>390,278</b>	<b>16,878 (4.5%)</b>
<b>Office of Inspector General</b>	<b>41,700</b>	<b>44,200</b>	<b>44,200</b>	<b>44,200</b>	<b>2,500 (6.0%)</b>

Source: <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-B.pdf>.



## National Endowment for the Arts and National Endowment for the Humanities

For FY 2021, the bill will provide both the National Endowment for the Humanities (NEH) and the National Endowment for the Arts (NEA) \$167.5 million each, reflecting an over \$5 million increase for both agencies over FY 2020 levels. Similar to previous fiscal years, Congress rebuffs the President’s budget proposal to eliminate both Endowments.

The package affirms the House’s related report language that directs NEH to focus on cross-cutting agency initiatives, including: “the celebration of the U.S. Semiquincentennial, the advancement of civic education, and NEH’s ‘Standing Together’ initiative which promotes a deeper understanding of the military experience and supports returning veterans and their families.” The agreement notes NEH should continue to support the National Digital Newspapers program and the Landmarks of American History and Culture workshops. The explanatory statement also encourages NEH to support projects that focus on Russian orthodox sacred sites and “historically significant narratives of communities tied to recently discovered sites of the transatlantic slave trade.”

For NEA, the accompanying explanatory statement encourages the agency to continue efforts with the Military Healing Arts Network to support military and veteran populations through the arts. The package carries forward the House report language directing NEA to give priority to projects that support underserved populations in low-income urban or geographically isolated areas and notes strong support for NEA’s efforts to support STEAM (Science, Technology, Engineering, Arts, and Math) education initiatives.

### National Endowment for the Humanities & National Endowment for the Arts

*(in thousands of \$)*

	FY 2020 Enacted	FY 2021 House	FY 2021 Senate	FY 2021 Omnibus	Omnibus vs. Enacted
<b>NEH, total</b>	<b>162,250</b>	<b>170,000</b>	<b>162,250</b>	<b>167,500</b>	<b>5,250 (3.2%)</b>
Research Programs	14,500	14,500	14,500	14,500	--
Education Programs	12,250	13,094	12,250	13,000	750 (6.1%)
Federal/State Partnerships	50,028	52,206	50,028	51,576	1,548 (3.1%)
<b>NEA, total</b>	<b>162,250</b>	<b>170,000</b>	<b>162,250</b>	<b>167,500</b>	<b>5,250 (3.2%)</b>

Grants	77,760	82,410	77,760	80,310	2,550 (3.3%)
State and Regional Partnerships	40,798	43,238	40,798	42,153	1,355 (3.3%)

*Sources and Additional Information:*

- The Consolidated Appropriations of FY 2021 text at <https://rules.house.gov/sites/democrats.rules.house.gov/files/BILLS-116HR133SA-RCP-116-68.pdf> and Joint Explanatory Statement for Division G, Interior, Environment and Related Agencies at <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-G.pdf>

# National Science Foundation



## National Science Foundation

The National Science Foundation (NSF) is funded at \$8.487 billion in the final appropriations deal, an increase of \$208 million or 2.5 percent over the fiscal year (FY) 2020 enacted level. This is \$8.76 million above the Senate proposed amount, \$61.6 million below the House proposal, and \$745.4 million over the President's request.

The **Research and Related Activities (R&RA) account**, which funds all of NSF's research directorates, is funded at \$6.91 billion, an increase of 2.6 percent or \$172.6 million over the FY 2020 level. The Explanatory Statement reiterates both House and Senate report language related to support for existing NSF research and research infrastructure and directs NSF to keep all core research and research infrastructure at least at the FY 2020 level. The conference report will provide up to the FY 2021 requested level of \$868 million, which is 87 percent over the FY 2019 level, for research related to **Artificial intelligence (AI)** and encourages NSF to continue its efforts on workforce development for AI, including a focus on Minority Serving Institutions (MSIs). **Quantum Information Science** will be funded up to the requested amount of \$226 million and at least \$160 million for activities related to the National Quantum Initiative Act, including \$50 million for National Quantum Information Science Research Centers.

Other NSF research priorities including **Rules of Life, Navigating the New Arctic, Spectrum Innovation Initiative**, and **Coastlines and People** are highlighted in the agreement. Additionally, \$200 million is provided for the Established Program to Stimulate Competitive Research (**EPSCoR**). The agreement encourages NSF to "consider additional research efforts that will help **counter influence from foreign adversaries** on social media platforms designed to influence U.S. perspectives and undermine confidence in U.S. elections and institutions." As in previous years the agreement supports investments in the **Re-Engineering Plastic Textiles**, Verification of the Origins of Rotation in Tornadoes Experiment-Southeast (**VORTEX-SE**), **Water-Contamination Research**, **Study of Temperate Woodland and Alpine Ecosystems and Ecoregions**, **Marine Research**, and **Sustainable Chemistry Research**. The agreement also directs NSF to submit to Congress immediately the **U.S. Neutron Monitor Network plan**. The agreement encourages NSF to invest in additional **High-Performance Computing Systems** and encourages NSF to "implement report recommendations and to make the necessary early-stage investments in intense, **ultrafast laser science and technology**."

The agreement provides \$40 million for the I-Corps program and encourages greater engagement with States that have not previously received awards. The agreement adopts the House language directing NSF to provide reports on how it is contributing to the success of **Historically Black Colleges and Universities (HBCU)** and encourages NSF to expand its reporting to all **MSIs**.

The final deal provides \$241 million for the **Major Research Equipment and Facilities Construction Account (MREFC)**, \$2.2 million below the FY 2020 level but \$11.25 million above the budget request. The increase above the request is provided for Mid-Scale Research Infrastructure, which will be funded at \$76.25 million. The agreement provides requested funding for all ongoing MREFC construction projects: Vera C. Rubin Observatory, Antarctic Infrastructure Modernization for Science, and the High Luminosity – Large Hadron Collider Upgrade. NSF and the National Science Board are “encouraged to engage in robust planning for and investments in the next generation of world class facilities, including any projects recommended by the upcoming Astrophysics decadal survey.”

The deal provides \$968 million for the **Education and Human Resources (EHR) account**, \$28 million or 3.0 percent above the FY 2020 level. The explanatory statement increases funding for Hispanic Serving Institutions (HSI) to \$46.5 million, \$1.5 million above the FY 2020 level to “build capacity at institutions of higher education that typically do not receive high levels of NSF funding.” The deal will also fund the HBCU Undergraduate Program at \$36.5 million (\$1.5 million above the FY 2020 level); the Tribal Colleges and Universities Program (TCUP) at \$16.5 million (\$1.5 million above the FY 2020 level); the Louis Stokes Alliances for Minority Participation (LSAMP) at \$49.5 million (\$2 million above the FY 2020 level); the Alliance for Graduate Education and the Professoriate (AGEP) at \$8 million (equal to the FY 2019 level); the Advancing Informal STEM Learning (AISL) at \$62.5 million (equal to the FY 2019 level); and the Centers for Research Excellence in Science and Technology (CREST) at \$24 million. Several programs would be funded at their FY 2020 levels, including Advancement of Women in Academic Science and Engineering Careers (ADVANCE, \$18 million); Improving Undergraduate STEM Education (IUSE); the Robert Noyce Scholarship Program; Advanced Technological Education (ATE, \$75 million); and the Graduate Research Fellowship. The Cybercorps Scholarship for Service program would be funded at \$60 million (\$4.67 million above the FY 2019 level) and NSF is “urged to collaborate with National Initiative for Cybersecurity Education at NIST on efforts to develop cybersecurity skills in the workforce.” The report also includes language encouraging NSF to include training in bioprocessing.

Under the **Agency Operations and Award Management account**, NSF is “NSF is encouraged to take steps to promote racial and cultural acceptance and diversity within its workforce.”

The agreement highlights the devastating loss of the **Arecibo Observatory (AO)** following the recent collapse of the 305-meter radio telescope. NSF is directed to report within 60 days on “the causes and extent of the damage, the plan to remove debris in a safe and environmentally sound way, the preservation of the associated AO facilities and surrounding areas, and the process for determining whether to establish comparable technology at the site, along with any associated cost estimates.”

In addition to items specified in the explanatory statement, House and Senate committee report language that is not addressed carries forward, including items related to math institutes, Earth systems science, domestic steel manufacturing, and Harmful Algal Blooms (HABs).

## National Science Foundation

*(In millions of \$)*

	FY 2020 Enacted	FY 2021 House	FY 2021 Senate	FY 2021 Omnibus	FY 2021 Final vs. FY 2020 Enacted
<b>NSF, total</b>	<b>8,278.33</b>	<b>8,548.34</b>	<b>8,478.00</b>	<b>8,486.76</b>	<b>208.43 (2.5%)</b>
<b>Research and Related Activities</b>	6,737.20	6,967.12	6,907.40	6,909.77	172.57 (2.6%)
<b>Education and Human Resources</b>	940.00	970.00	963.50	968.00	28.00 (3.0%)
<b>Major Research Equipment and Facilities Construction</b>	243.23	243.23	239.75	241.00	-2.23 (0.9%)
<b>Agency Operation and Award Management</b>	336.90	345.64	345.00	345.64	8.74 (2.6%)
<b>National Science Board</b>	4.50	4.50	4.50	4.50	--
<b>Office of Inspector General</b>	16.50	17.85	17.85	17.85	1.35 (8.2%)

Source: The explanatory statement is available at <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-B.pdf>.



## U.S. Department of Agriculture

The omnibus provides \$23.395 billion in topline discretionary funding for USDA, a \$217 million increase from the FY 2020 enacted level. USDA's broadband programs will receive one of the largest increases and be funded at \$730 million, an increase of \$110 million over FY 2020.

The **National Institute of Food and Agriculture (NIFA)** will be funded at \$1.57 billion in discretionary funding in the final agreement, \$42.7 million above FY 2020. This includes \$435 million for the Agriculture and Food Research Initiative (AFRI), an increase of \$10 million from FY 2020. Hatch, McIntire-Stennis, and Smith-Lever all receive flat funding. The bill also provides level funding for Genome to Phenome at \$1 million, \$5 million for Capacity Building for Non-Land-Grant Colleges of Agriculture, and \$5 million for research equipment grants. New in FY 2021 is \$4 million for a competitive grant for a land-grant university to establish a Farm of the Future testbed and \$300,000 for a blue-ribbon panel to evaluate the structure of research and education at land-grant universities. The agreement extends the cost-match waiver for the Specialty Crop Research Initiative (SCRI).

The omnibus provides the **Agricultural Research Service (ARS)** Salaries and Expenses line with a \$77.4 million increase. The bill rejects the President's request for termination, redirection, or closure of research programs and facilities. Importantly, extramural research will be funded at no less than the FY 2020 level. Funding increases are directed to numerous research topics, including activated foods, human nutrition, genome to fields, and the National Bio and Agro-Defense Facility (NBAF). The agreement also expresses concern over the threat of invasive pests to the Pacific region and directs ARS to work with stakeholders, including holding a public meeting, to assess options to address the issue.

In addition, the agreement directs USDA to complete a strategic plan, as authorized in the 2018 Farm Bill, for the Agriculture Advanced Research and Development Authority (AGARDA). The plan should be completed no later than 180 days after enactment and should include how AGARDA can work in collaboration with ARS and NIFA. Notably, funding is not provided for AGARDA in the omnibus. The Secretary of Agriculture is also directed to prioritize research and work on pollinator health and continue to gather data on the losses of colonies, rising input costs, and pollinators' economic value.

Of note, included as a separate provision within the larger final legislative package is the *National Bio and Agro-Defense Facility Act of 2020*. The legislation authorizes and provides direction to NBAF located in Manhattan, Kansas.

**U.S. Department of Agriculture**  
(In Thousands of \$)

	FY 2020 Enacted	FY 2021 House	FY 2021 Senate	FY 2021 Omnibus	FY 2021 Omnibus vs. FY 2020 Enacted
<b>Agricultural Research Service, Salaries &amp; Expenses</b>	<b>1,414,366</b>	<b>1,451,712</b>	<b>1,485,613</b>	<b>1,491,784</b>	<b>77,418 (5.5%)</b>
<b>National Institute of Food and Agriculture, Discretionary</b>	<b>1,527,421</b>	<b>1,575,286</b>	<b>1,538,886</b>	<b>1,570,089</b>	<b>42,668 (2.8%)</b>
AFRI	425,000	435,000	435,000	435,000	10,000 (2.3%)
Hatch Act	259,000	259,000	259,000	259,000	0 (0%)
Smith-Lever Act 3(b) and 3(c)	315,000	315,000	315,000	315,000	0 (0%)
McIntire-Stennis	36,000	38,000	36,000	36,000	0 (0%)
Hispanic Serving Agricultural Colleges and Universities Endowment Fund	11,200	13,000	11,200	12,500	1,300 (11.6%)
<b>Food Safety and Inspection Service (FSIS)</b>	<b>1,054,344</b>	<b>1,087,552</b>	<b>1,070,112</b>	<b>1,075,703</b>	<b>21,359 (2.0%)</b>
<b>Animal and Plant Health Inspection Service (APHIS), Salaries &amp; Expenses</b>	<b>1,042,711</b>	<b>1,069,817</b>	<b>1,057,100</b>	<b>1,064,179</b>	<b>21,468 (2.1%)</b>
<b>Food and Drug Administration (FDA), Direct Appropriation</b>	<b>3,159,678</b>	<b>3,200,506</b>	<b>3,197,678</b>	<b>3,201,928</b>	<b>42,250 (1.3%)</b>
<b>Rural Broadband</b>	<b>620,000</b>	<b>1,055,000</b>	<b>465,600</b>	<b>730,000</b>	<b>110,000 (17.7%)</b>
ReConnect pilot program	555,000	990,000	400,000	635,000	80,000 (14.4%)
RISE program	5,000	5,000	5,000	5,000	0 (0%)

Source: <https://docs.house.gov/billsthisweek/20201221/BILLS-116RCP68-JES-DIVISION-A.pdf>.



## U.S. Geological Survey

The FY 2021 omnibus will provide \$1.316 billion for the U.S. Geological Survey (USGS), which is \$44.6 million or 3.5 percent above the FY 2020 enacted level. The topline USGS funding level in the omnibus is almost \$23 million higher than the proposed House FY 2021 appropriations bill, and \$50 million above the Senate version. Congress rejected President Trump's proposed budget that would have cut the agency to \$971 million for FY 2021.

Like the House and Senate bills, the omnibus will accept the proposed restructure that would move programs from Land Resources into Ecosystems and Core Science Systems, while rejecting the proposed restructure to Water Resources. This is a change from FY 2020 when Congress rejected the Administration's proposed restructure. The omnibus also rejects the proposed elimination of Environmental Health and instead will move this account into Ecosystems. With the reorganization, funding for Ecosystems and Core Science Systems will grow 52 percent and 83 percent, respectively.

The omnibus will fund the **Natural Hazards account** at \$175 million, a \$4.6 million or 2.7 percent increase compared to FY 2020. Specifically, the bill will provide \$25.7 million for continued development of the ShakeAlert Earthquake Early Warning System. The Advanced National Seismic System (ANSS), regional seismic networks, and regional networks operating and maintaining the USArray stations will maintain level funding.

The bill ignores the Administration's continued proposed elimination of the **Water Resources Research Institutes** and instead funds the program at \$11 million, a \$1 million increase from FY 2020. USGS is encouraged to use the additional funding to support PFAS research. In total, the Water Resources mission area will receive \$263 million for FY 2021, or an increase of \$29 million or 12 percent.

Within the Ecosystems mission area, Congress rejected the President's proposed elimination of the **Cooperative Research Units (CRUs)**. Instead, the CRUs will receive funding of \$25 million, an increase of \$1 million over the FY 2020 enacted level. Of this amount, \$700,000 will be for establishing a new CRU on water scarcity. Congress continues to direct USGS to fill critical CRU vacancies. The omnibus will rename the proposed Biological Threats Research Program to the Biological Threats and Invasive Species Research Program and will provide \$38 million in funding, of which \$3.7 million is designated for Chronic Wasting Disease.

Though Congress agreed to move the **Climate Adaptation Science Centers** from Land Resources into Ecosystems, Congress ignored the President's request to cut funding for centers by 83 percent. Instead, the omnibus will increase funding by \$3 million or eight percent to a total of \$41 million. Specifically, the omnibus calls for "no less than \$4,000,000 for the development and operation of the Midwest Climate Adaptation Science Center," which was included as a new center in FY 2020 enacted appropriations.

With the reorganization of Environmental Health into Ecosystems, the leaner **Energy and Minerals** mission area will receive \$90 million, a 21 percent decrease from the FY 2020 enacted level. The Mineral Resources and Energy Resources accounts will essentially remain flat. The critical minerals Earth Mapping Resources Initiative (Earth MRI) within this mission area will receive \$10.6 million.

In Core Science Systems, the **National Cooperative Geological Mapping Program** will be funded at \$40 million, an increase of \$6 million. Included in this funding is Phase Three of the National Geologic Database. In addition, the 3D Elevation Program (3DEP) will receive no less than \$46 million, and the omnibus adopts House language that states funding “supports the continued collaboration with partners to leverage the resources provided for 3DEP to achieve the goal of national coverage by 2026.”