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Analysis of the FY 2020 Minibus Appropriations Bills: Implications for Research, Higher Education, and Academic Medicine

Prepared by Lewis-Burke Associates LLC
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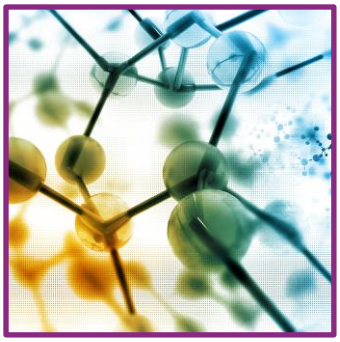

Government Relations for Research & Education

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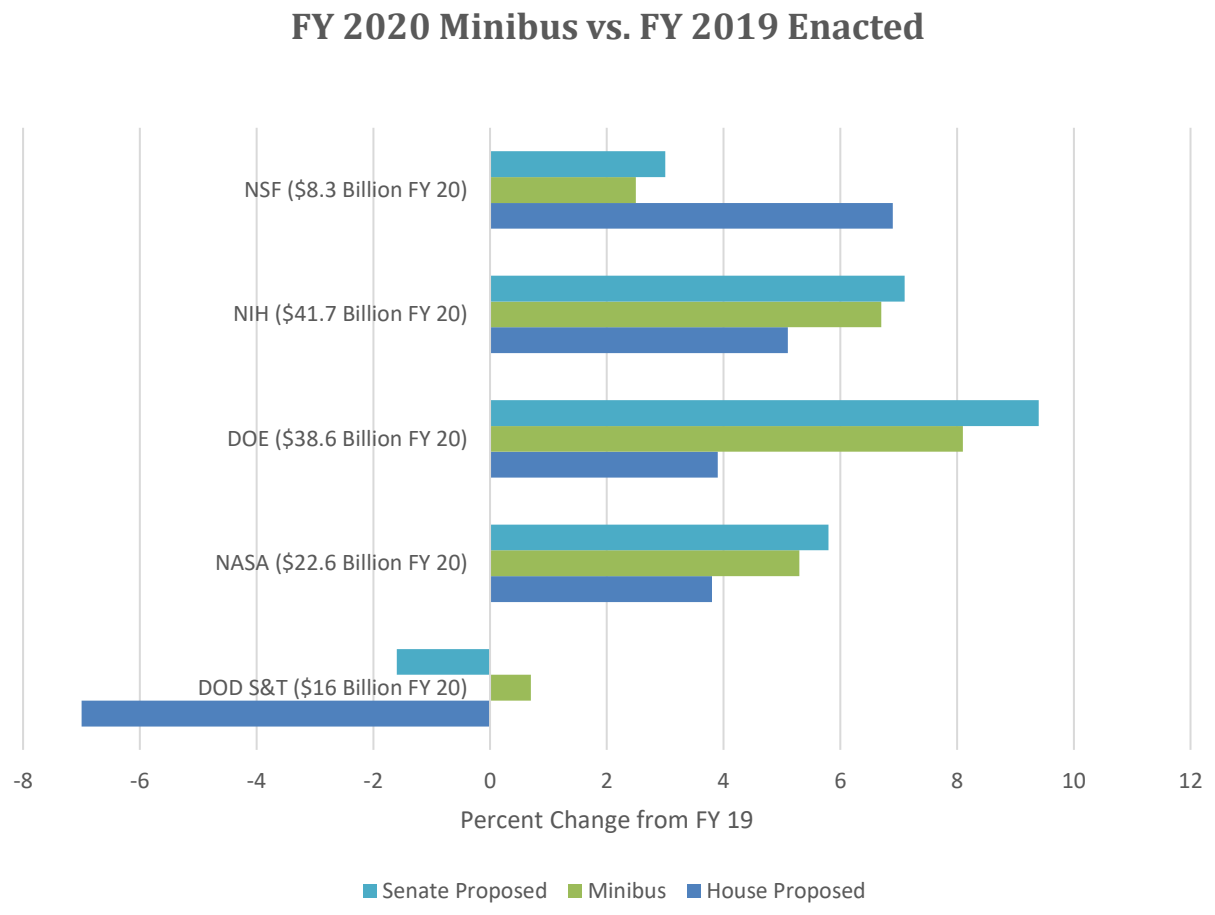
Executive Summary

Congress is poised to pass a $1.37 trillion fiscal year (FY) 2020 appropriations spending package before current government funding expires on December 20 and President Trump is expected to sign it into law. Two Continuing Resolutions were needed to avoid a government shutdown and maintain FY 2019 funding levels for government agencies for the first three months of the fiscal year, but Congress and the Trump Administration finally reached agreement on a final spending package for FY 2020 as well as tax and health care provisions of interest to institutions of higher education and the research community.

The spending package abides to the funding levels in the two year budget agreement reached in July with $738 billion for defense spending—an increase of $22 billion or 3 percent above FY 2019 levels—and $632 billion for non-defense spending—an increase of $35 billion, or 4.5 percent, above FY 2019 enacted levels. If including disaster aid, war funding and other emergency funding, the spending package provides an increase of 4.8 percent, or $64.2 billion, above the FY 2019 enacted level. Congress divided the 12 appropriations bills into two minibus packages, with one more security focused and the other focused on domestic and foreign aid programs, but the end result should be the same—Congress is expected to pass all 12 appropriations bills into law. The House already passed the first security spending package on a vote of 280-138 and the second package on a vote of 297-120. The Senate is expected to pass the two packages on December 19.



FY 2020 appropriations would boost funding for all federal agencies that support research and most science and technology research and development programs across the federal government would see significant increases. The graphic below shows final funding results for major research agencies. The biggest winners are the National Institutes of Health and the Department of Energy fundamental and applied energy research programs, , with more modest increases for the National Science Foundation, Department of Defense science and technology programs, the National Aeronautics and Space Administration science program and the U.S. Department of Agriculture's Agriculture and Food Research Initiative.

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,
- genomics and engineered biology,
- next-generation microelectronics,
- hypersonics, and
- space exploration.

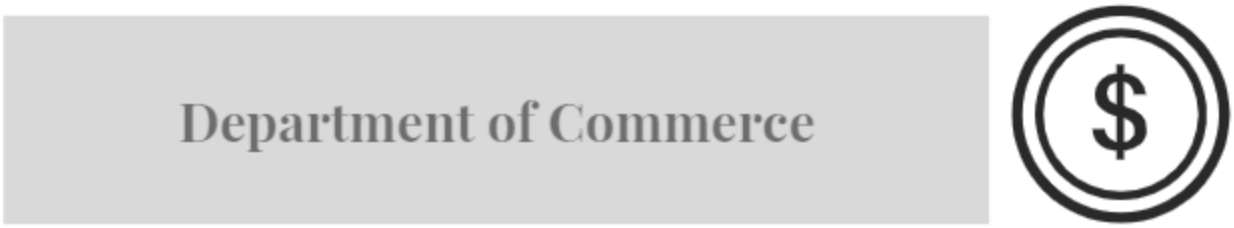
In addition to research funding, the spending package includes several important wins for higher education. The maximum award for Pell Grants would be increased by $150, bringing the award to $6,345 for the 2020-2021 school year. Federal student aid programs, including the Federal Supplemental Educational Opportunity Grant and Federal Work Study, would also receive an increase. Several tax provisions of interest to higher education are also part of the package. The non-profit "parking tax" would be repealed which was created by the 2017 tax law and treated tax-exempt employer provided parking and transportation benefits as unrelated business income. The 2017 tax law's "kiddie tax" would also be repealed, protecting students from that law's increase in tax rates for taxable scholarships. Finally, the package includes the retroactive reinstatement and extension of the above-the-line tuition deduction.

Regarding health care issues, for the first time since the late 1990s, the spending package would provide funding for research on firearms and gun violence at the Centers for Disease Control and the National Institutes of Health. It would also provide funding for several new behavioral health education and training programs at the Health Resources and Services Administration (HRSA), which have been authorized over the last few years through various legislative vehicles but have not yet been funded. Beyond appropriations, the package would also extend funding through May 22, 2020, of several expiring health programs that receive mandatory funding, including Medicaid Disproportionate Share Hospital payments and Teaching Health Center Graduate Medical Education. The goal of this extension is to create an incentive for Congress to pass more comprehensive health legislation next year even during an election year. The package also includes a 10-year reauthorization of the Patient-Centered Outcomes Research Institute and increases the age to buy tobacco products to 21 years of age.

Moving into next year, FY 2021 funding levels are not likely to deviate substantially from final FY 2020 appropriations. The two-year budget agreement provides only a $5 billion increase to total discretionary spending in FY 2021—from the current level of $1.37 trillion to $1.375 trillion. In addition,

completing FY 2021 appropriations and major legislation is often a challenge during a Presidential election year. One or more Continuing Resolutions are likely ahead of and following the elections next November.

Below is more detailed funding information on each major federal agency.



Department of Commerce

Economic Development Administration

The Economic Development Administration (EDA) would receive $330 million in the final FY 2020 omnibus, which is $29 million (9.5 percent) above the FY 2019 enacted level, but well short of the House's recommendation of $540 million for EDA. This increase runs counter to the President's FY 2019 budget request, which once again proposed eliminating the agency outright.

The popular Regional Innovation Program (RIP) would receive $33 million, a $9.5 million (40.4 percent) increase over the FY 2019 level. RIP provides support for universities and research institutes to develop and scale-up commercialization centers through i6 Challenge grants and to cultivate funding campaigns for promising startups through Cluster Grants for Seed Capital Funds. EDA program officers anticipated this increase and have recently expressed interest in using additional funds to support opportunities for higher award amounts for larger scale proposals under the i6 Challenge. These plans are not final, and more will be known when the revamped RIP solicitation is rolled out in February 2020.

The Public Works program would receive $118.5 million and the Economic Adjustment Assistance (EAA) program would receive $37 million in FY 2020. The bill would also direct EDA to expand its outreach and technical assistance to potential applicants to ensure more and higher quality applications that will benefit residents in high-poverty areas, and report on its efforts from FY 2017-2020 to serve these populations. This is modified language from the House's bill, which may have been in response to the Trump Administration's allowance of qualified Opportunity Zones to compete for Economic Development Assistance Program funding for infrastructure and capacity building. These programs had historically been reserved for regions that meet a much higher level of distress than many Opportunity Zones.

The bill would also provide $2 million for a pilot program to expand STEM apprenticeship and other workforce training models, $15 million in assistance to Nuclear Closure Communities, and $30 million in assistance to Coal Communities. Report language from the bill would encourage EDA to consider projects to repurpose abandoned coal-fired plants, and direct EDA to encourage applicants to submit proposals that are resilient to climate change or integrate green infrastructure solutions.

Economic Development Administration

(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Omnibus	Omnibus vs. FY 20 Enacted
EDA, total	**304,000**	**540,000**	**319,500**	**333,000**	**29,000 (9.5%)**
Economic Development Assistance Programs	**265,000**	**498,350**	**279,500**	**292,500**	**27,500 (10.4%)**
Public Works	117,500	250,000	119,500	118,500	1,000 (0.9%)
Economic Adjustment Assistance Program	37,000	97,000	37,000	37,000	--
Regional Innovation Program	23,500	30,000	31,000	33,000	9,500 (40.4%)
Research and Evaluation	1,500	1,600	1,500	1,500	--

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201158%20-%20Division%20B%20-%20CJS%20SOM%20FY20.pdf.

National Institute of Standards and Technology

The National Institute of Standards and Technology (NIST) received $1.034 billion in the final FY 2020 spending package. This is $48.5 million or 4.9 percent above the FY 2019 level.

The spending bill continues support for multiple NIST priorities including cybersecurity, advanced manufacturing, artificial intelligence, additive manufacturing and quantum information science. The bill maintains $146 million for the Hollings Manufacturing Extension Partnership and $16 million for Manufacturing USA.

National Institute of Standards and Technology

(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Omnibus	FY 2020 omnibus vs. FY 2019 Enacted
NIST, total	**985,500**	**1,040,172**	**1,038,000**	**1,034,000**	**48,500 (4.9%)**
Scientific and Technical Research and Services	**724,500**	**751,000**	**753,500**	**754,000**	**29,500 (4.1%)**
Industrial Technology Services	**155,000**	**169,172**	**161,500**	**162,000**	**7,000 (4.5%)**
Hollings Manufacturing Extension Partnership (MEP)	140,000	154,000	145,500	146,000	6,000 (4.3%)
Manufacturing USA	15,000	15,172	16,000	16,000	1,000 (6.7%)

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201158%20-%20Division%20B%20-%20CJS%20SOM%20FY20.pdf.

National Oceanic and Atmospheric Administration

In the negotiated agreement, NOAA received a topline cut of $73 million or 1.3 percent compared to the FY 2019 enacted level. Reductions to the Procurement, Acquisition, and Construction (PAC) account would comprise the bulk of the overall decrease while funding for **Operations, Research, and Facilities** (ORF) would grow by 10 percent or $359 million compared to the enacted FY 2019 level. The increase to ORF is in contrast to the 15 percent cut requested by the Trump Administration.

The **Office of Oceanic and Atmospheric Research (OAR)** would be funded at $548 million, a four percent or $23 million increase above the FY 2019 enacted level. Congress resoundingly rejected President Trump's proposed 41 percent cut to this office which houses NOAA's main extramural research programs. The FY 2020 minibus would provide a $3 million increase to OAR's **Competitive Climate Research program**, a more modest increase than the $11 million proposed by the House. Funding for **Ocean Exploration and Research (OER)** would be held flat at $42 million. The **Regional Integrated Sciences and Assessment Program (RISA)** would receive a $1.5 million increase to expand geographical coverage. Within the Weather Research Program, the minibus would provide at least $8 million for the new **Earth Prediction Innovation Center** and adopt the Senate language that notes this program is expected to improve operational weather forecasting capabilities. Additionally, the minibus directs at least $3 million to the **National Climate Assessment**.

The **National Ocean Service (NOS)** would see a three percent increase compared to FY 2019. The Marine Debris program would receive an increase of at least $1 million and **the National Centers for Coastal Ocean Science** would receive $44 million in total. The **NOS Coastal Science and Assessment Competitive External Research** account would receive a $1 million increase directed to a national study of the economic effects of Harmful Algal Blooms (HABs) and would adopt HABs language from both the House and Senate to prioritize research on interventions and mitigation. The bill would also provide $5 million directed to the **National Oceanographic Research Partnership Program**, an interagency research collaborative led by the Navy.

The conference explanatory statement rejects the House report language that would have provided $13 million to "Climate Research Laboratories and Cooperative Institutes for observations, monitoring, and forecasting of stratospheric conditions and Earth's radiation budget." Instead, $4 million would be provided for modeling, assessments, and when possible, initial observations and monitoring. The language does not specify a category of recipients.

Within the National Weather Service (NWS), the minibus would provide the **National Mesonet Program** with $20.2 million, $2.2 million over the FY 2019 enacted level for continuation and expansion. The legislation would include $12.6 million for **Unmanned Systems Operations** following support from both the House and Senate for the establishment of an unmanned systems program, as proposed in the FY 2020 budget request.

Within the **PAC** account, **Space Weather Follow-on** would receive $64 million, a significant increase compared to the FY 2019 enacted level of $27 million and much closer to the Senate funding level that was almost double the House mark. **Polar Weather Satellites** would be funded at $745 million, close to the budget request of $755 million. The minibus would also provide $4.5 million for **National Estuarine Research Reserve** construction.

National Oceanic and Atmospheric Administration

(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Omnibus	FY 2020 Omnibus vs. FY 2019 Enacted
NOAA, total	**5,424,695**	**5,478,974**	**5,337,343**	**5,352,178**	**-72,517 (1.3%)**
Operations, Research and Facilities (ORF)	**3,596,997**	**4,105,907**	**3,727,466**	**3,956,213**	**359,216 (10.0%)**
Oceanic and Atmospheric Research (OAR)	525,060	595,393	531,207	548,384	23,324 (4.4%)
Climate Research	159,000	186,500	160,000	169,500	10,500 (6.6%)
Competitive Climate Research	60,000	71,000	60,000	63,000	3,000 (5.0%)
Weather and Air Chemistry	135,380	147,313	131,972	133,634	-1,746 (%)
Ocean, Coastal and Great Lakes Research	218,500	239,345	226,000	228,500	10,000 (4.6%)
National Sea Grant College Program	68,000	73,000	75,000	74,000	6,000 (8.8%)
Ocean Exploration Research (OER)	42,000	44,000	42,000	42,000	0 --
National Weather Service (NWS)	**1,020,719**	**1,099,549**	**1,060,045**	**1,065,701**	**44,982 (4.4%)**
National Ocean Service (NOS)	**581,567**	**642,000**	**588,806**	**598,956**	**17,389 (3.0%)**
Coastal Science and Assessment: Competitive Research	18,000	20,000	18,000	19,000	1,000 (5.6%)
Ocean and Coastal Management and Services: Coastal Management Grants	75,500	81,000	76,500	77,000	1,500 (2.0%)
National Marine Fisheries Service (NMFS)	**908,832**	**944,650**	**944,867**	**947,657**	**38,825 (4.3%)**
Procurement, Acquisition, and Construction (PAC)	**1,768,349**	**1,509,000**	**1,552,528**	**1,543,890**	**-224,459 (12.7%)**

National Environmental Satellite, Data, and Information Service	1,457,181	1,218,237	1,271,583	1,253,445	-203,736 (14.0%)

Note: These numbers include transfer authority funds.

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201158%20-%20Division%20B%20-%20CJS%20SOM%20FY20.pdf.

Department of Defense

The Department of Defense (DOD) would receive $695.1 billion in fiscal year (FY) 2020, a $19.5 billion increase over the FY 2019 enacted level. This includes $622.6 billion for the Department's base budget and $70.6 billion for Overseas Contingency Operations (OCO). The bill notably does not contain many of the House Democrats' priorities, such as provisions that would limit DOD's authority to transfer funds for the construction of a border wall, repeal the 2001 Authorization for Use of Military Force (AUMF), or prohibit funds to be used to cooperate with Saudi Arabia in its military campaign in Yemen. Congress would also take a cautious approach to funding the newly established Space Force, providing only $40 million for the new service, compared to the $72.4 requested by DOD in the President's budget request. The bill would also fund the newly established Space Development Agency at $30 million, $14 million less than what was originally requested.

DOD's Research, Development, Test, and Evaluation (RDT&E) accounts would be funded at $104.4 billion, a 10 percent increase above the FY 2019 level, though the bill would prioritize later stage development and prototyping rather than a focus on funding for the science and technology (S&T) accounts. Overall, S&T accounts, which range from basic research (6.1) to advanced technology development (6.3), would be funded at $16.1 billion, a modest 0.7 percent increase above the FY 2019 level. The small increases for basic research (2.9 percent) and applied research (less than 0.1 percent) stem a combination of increases to some portfolios countered by significant reductions to other portfolios, such as a 20.3 percent reduction to the Army's applied research, and 4.3 percent reduction to Navy basic research. Other accounts received notable increases, such as the Defense-wide and Army basic research accounts, and the Navy and Air Force applied research accounts.

The Defense Advanced Research Projects Agency (DARPA) would be funded at $3.5 billion, a small increase of $31.3 million (0.9 percent) above the FY 2019 level.

The bill provides funding increases for a number of Congress' and the DOD's top technology priorities such as artificial intelligence, quantum information science, and hypersonics.

Artificial Intelligence (AI)
The bill would provide funding increases for a number of new AI related programs. This includes $8 million for the Air Force to establish an AI/Machine Learning accelerator, as well as $20 million for the Army to stand up an AI Innovation Institute.

Quantum Information Science
The bill would provide $8 million to the Air Force for a Quantum Information Science Innovation Center, on top of additional investments in quantum communications ($4 million) and quantum cryptography ($7 million).

Hypersonics
Noting concerns about the threat hypersonic weapons pose to U.S. National Security, the bill would provide $100 million for a Joint Hypersonics Transition Office. This office would be tasked with developing a science and technology roadmap for hypersonics and establishing a university consortium to advance research and workforce development in hypersonics.

Other notable provisions in the bill would provide:

- $200 million for the Next Generation Information Communications Technology program, the Department's new effort to develop next generation wireless technologies (5G). The Senate had originally recommended $436 million.
- $10 million for Army Futures Command's new Catalyst program, which would embed Service Members at university campuses to better integrate university research and development (R&D) with the warfighter's needs.
- Increases in the Navy's basic research portfolio of $5 million and $10 million for the Multi-Disciplinary University Research Initiative (MURI) program and the Defense University Research Instrumentation Program (DURIP), respectively.
- $2 million increase for the Minerva Research Initiative, following the Army's disinvestment from this program.
- $12 million increase for 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.
- $35 million in additional funds for the National Defense Education Program (NDEP) targeted for basic research, as well as $2 million for a civic education program.
- $10 million additional funding for academic cyber institutes.
- $100 million increase above the budget request for the manufacturing science and technology program, including $10 million for the manufacturing innovation institutes.

Defense Health Program
Beyond core defense science and technology programs, the Defense Health Program RDT&E account would receive approximately $2.31 billion, a nearly 6 percent increase from the FY 2019 enacted level. The bill would direct not less than $1.38 billion for the Congressionally Directed Medical Research Program (CDMRP), including $360 million for the Peer-Reviewed Medical Research Program (PRMRP), which is a $10 million increase relative to FY 2019. New and updated topics in the PRMRP would include: emerging viral diseases, endometriosis, familial hypercholesterolemia, fibrous dysplasia, food allergies, fragile X, musculoskeletal health, myalgic encephalomyelitis/chronic fatigue syndrome, plant-based vaccines, sleep disorders and restrictions, and sustained release drug delivery. Appropriators would create three new research programs within CDMRP: a $7.5 million rare cancers program, a $6 million pancreatic cancer program, and a $5 million scleroderma program. Further, the Peer-Reviewed Cancer Research Program would receive a $20 million increase and would include four new topics: esophageal cancer, head and neck cancer, metastatic cancers, and neuroblastoma.

Department of Defense

(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Minibus	FY 2020 Minibus vs. FY 2019 Enacted
RDT&E, total	**94,896,708**	**100,691,612**	**104,282,139**	**104,431,232**	**9,534,524 (10%)**
S&T, Total	**15,959,770**	**14,843,219**	**15,698,762**	**16,073,879**	**114,109 (0.7%)**
6.1, Total	2,529,556	2,508,345	2,627,839	2,603,345	73,789 (2.9%)
6.2, Total	6,068,244	5,556,120	5,975,570	6,069,767	1,523 (0.03%)
6.3, Total	7,361,970	6,778,754	7,095,353	7,400,767	38,797 (0.5%)
Army RDT&E	**11,083,824**	**12,046,783**	**12,412,845**	**12,543,435**	**1,459,611 (13.2%)**
Army 6.1	506,895	527,484	576,980	574,484	67,589 (13.3%)
Army 6.2	1,579,344	1,033,816	1,202,248	1,259,374	-319,970 (20.3%)
Army 6.3	1,586,818	1,253,064	1,453,016	1,531,516	-55,302 (3.5%)
Navy RDT&E	**18,510,564**	**19,125,865**	**19,818,218**	**20,155,115**	**1,644,551 (8.9%)**
Navy 6.1	679,878	629,300	682,478	650,800	-29,078 (4.3%)
Navy 6.2	1,018,971	984,650	1,168,904	1,159,739	140,768 (13.8%)
Navy 6.3	852,820	756,173	901,810	807,280	-45,540 (5.3%)
Air Force RDT&E	**41,229,475**	**44,795,456**	**45,446,727**	**45,566,955**	**4,337,480 (10.5%)**
Air Force 6.1	561,369	549,761	579,761	549,761	-11,608 (2.1%)
Air Force 6.2	1,481,342	1,492,626	1,627,626	1,656,126	174,784 (11.8%)
Air Force 6.3	929,597	983,653	1,071,253	1,146,453	216,856 (23.3%)
Defense Wide RDT&E	**23,691,836**	**24,502,308**	**26,371,649**	**25,938,027**	**2,246,191 (9.5%)**
Defense Wide 6.1	781,414	801,800	788,620	828,300	46,886 (6.0%)
Defense Wide 6.2	1,988,587	2,045,028	1,976,792	1,994,528	5,941 (0.3%)
Defense Wide 6.3	3,992,735	3,785,864	3,790,474	3,915,518	-77,217 (1.9%)
Defense Health R&D	**2,179,621**	**1,652,273**	**1,707,773**	**2,306,095**	**126,474 (5.8%)**

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201158%20-%20Division%20A%20-%20Defense%20SOM%20FY20.pdf.

Department of Education

The Department of Education (ED) received a significant increase in funding, more than a billion dollars over FY 2019 levels and almost $9 billion more than proposed by the President's budget request. Higher education student aid programs, including the Pell Grant program, the Federal Supplemental Educational Opportunity Grant (SEOG) program, and the Federal Work-Study (FWS) program, would see increases (additional details are provided below). Similar to past years, the bill rescinds funds from the current Pell Grant surplus.

Other higher education programs that would see increases include grant programs for Minority Serving-Institutions (MSIs), the TRIO and GEAR UP programs, the Title VI foreign language and training programs, and the Teacher Quality Partnerships program, among others. The Institute of Education Sciences (IES) would also receive a small increase. Funding is also provided to support the development of mental health professionals, including social workers. The Department is directed to continue a demonstration project to test and evaluate partnerships to train school-based mental health professionals to support the implementation of trauma-informed practices and other mental health supports in schools.
The Centers of Excellence for Veterans Student Success Program, which has not operated in several years, would receive $7 million to restart the program. The Open Textbooks pilot grant program would receive funding for the third year in a row. ED would also be provided $10 million for a "Career Pathway" grant program "to expand and improve career pathways opportunities for students beginning in high school," such as evidence-based career exploration systems.

In report language accompanying the bill, which often includes guidance policy for ED, Congress directed the Department to address several issues including the administration of the Public Service Loan Forgiveness (PSLF) program, guidance on "Ability to Benefit," and student loan servicing. ED is also directed to address FAFSA simplification as it relates to data sharing between the Department and the Internal Revenue Service and to provide improvements to the "Return to Title IV" progress. The report also notes "long-standing concern regarding the Department's failure to issue notices inviting applications for competitive grant competitions in a timely manner."

Of note, the Committee calls on ED to engage with institutions to address confusion on the foreign gift reporting requirements found in Section 117 of the *Higher Education Act*. The explanatory statement further states that as ED provides guidance on reporting modifications, institutions "should be given adequate time to ensure proper reporting."

Below are funding highlights:

- The maximum Pell Grant award would rise to $6,345, an increase of $150 over the FY 2019 enacted level and the President's budget request.

- The SEOG program would be funded at $865 million, an increase of $25 million above the FY 2019 enacted level.
- FWS would receive $1.2 billion, an increase of $50 million above the 2019 enacted level.
- The Graduate Assistance in Areas of National Need (GAANN) program would be flat funded at $23 million.
- International Education and Foreign Language (Title VI) programs would receive $76.1 million, $4 million above FY 2019 enacted levels.
- Title III and Title V programs for Minority Serving Institutions would receive $759.6 million combined, $219.9 million more than in FY 2019.
- TRIO programs would be funded at $1.1 billion and GEAR UP would be funded at $365 million, an increase of $30 million and $5 million respectively, above the 2019 enacted level.
- The Teacher Quality Partnerships (TQP) grant program would be funded at $50 million, an increase of $7 million above the 2019 enacted level.
- The Child Care Access Means Parents in School (CCAMPIS) program would receive $53 million, an increase of $3 million above the FY 2019 enacted level.
- The Institute of Education Sciences (IES) would receive $623.5 million, $8 million higher than the FY 2019 enacted level.

Department of Education

(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Minibus	Minibus vs. FY 2019 Enacted
Elementary and Secondary Education*					
Promise Neighborhoods	78,254	80,000	78,254	80,000	1,746 (2.2%)
Education Innovation and Research	130,000	300,000	130,000	190,000	60,000 (46.2%)
Student Financial Assistance*					
Pell Grant†	6,195	6,345	6,330	6,345	150 (2.4%)
SEOG	840,000	1,028,000	840,000	865,000	25,000 (3.0%)
Federal Work-Study	1,130,000	1,434,000	1,130,000	1,180,000	50,000 (4.4%)
Higher Education*					
Title V Aid for Developing HSIs	124,415	150,000	124,415	143,081	18,666 (15.0%)
Promoting Post-Baccalaureate Opportunities for Hispanic Americans	11,163	30,000	11,163	12,838	1,675 (15.0%)

Title VI International Education and Foreign Language Studies	72,164	89,130	72,164	76,164	4,000 (5.5%)
TRIO Programs	1,060,000	1,160,000	1,060,000	1,090,000	30,000 (2.8%)
GEAR UP	360,000	395,000	360,000	365,000	5,000 (1.4%)
GAANN	23,047	24,047	23,047	23,047	--
Teacher Quality Partnerships	43,092	53,092	43,092	50,092	7,000 (16.2%)
Child Care Access Means Parents in Schools	50,000	60,000	50,000	53,000	3,000 (6.0%)
Institute of Education Sciences	**615,462**	**650,000**	**615,492**	**623,462**	**8,000 (1.3%)**
Research, Development and Dissemination	192,695	205,400	192,695	195,877	3,182 (1.7%)
Research in Special Education	56,000	61,000	56,000	56,500	500 (0.9%)
Regional Education Laboratories	55,423	60,400	55,423	56,022	599 (1.1%)
Statewide Data Systems	32,281	35,281	32,281	33,000	719 (2.2%)

* Categories included for ease of reading the chart.

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

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201865%20-%20Division%20A%20-%20LHHS%20SOM%20FY20.pdf.

Department of Energy

The FY 2020 minibus would provide $38.6 billion for the Department of Energy (DOE), which is $2.9 billion or eight percent above the FY 2019 enacted level. Of the $2.9 billion increase, $1.7 billion is for DOE's national security programs related to nuclear weapons, nonproliferation, and environmental clean-up programs, and the other $1.2 billion is to support fundamental and applied energy research and development programs.

The minibus would provide a funding increase to all DOE programs and advance all research and development programs and initiatives of interest to universities, National Laboratories, and the broader research community. The minibus also makes clear that it rejects 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 top four funding priorities include:

- Fundamental research in the physical sciences supported by the Office of Science, with an increase of $415 million, or 6.3 percent, above the FY 2019 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 $411 million, or 17 percent, above the FY 2019 enacted level;
- Advanced Research Projects Agency-Energy's (ARPA-E) energy technology research and development portfolio, with an increase of $59 million, or 16 percent, above the FY 2019 enacted level; and
- The National Nuclear Security Administration's (NNSA) science-based stockpile stewardship and nuclear weapons modernization activities, with an increase of $1.36 billion, or 12 percent, above the FY 2019 enacted level.

The minibus also advances three key research and development Administration priorities including:

- **Quantum information science (QIS).** A total of $195 million would be provided to carry out activities authorized under the *National Quantum Initiative Act* (P.L. 115-368). Of the $195 million, $75 million is provided to establish up to five National Quantum Information Science Research Centers with DOE expected to release the funding opportunity announcement in January 2020. The remaining $120 million would support the core QIS basic research program across the six Office of Science programs.
- **Artificial intelligence/machine learning (AI/ML)**. The minibus would provide $134 million to support AI/ML research activities across DOE. This includes $71 million for all six Office of Science programs. The minibus also allocates an additional $15 million for "research in memory advancements for accelerated architectures used to enhance" AI and ML. In addition, the

minibus would provide up to $48 million for AI/ML activities relevant to the national security mission within the NNSA Advanced Simulation and Computing program.

- **Exascale computing**. The minibus would provide $809 million for activities associated with the Exascale Computing Initiative (ECI), with $500 million for the Office of Science and $309 million for NNSA.

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

- The bill would provide $115 million for **Energy Frontier Research Centers** (EFRCs). This level of funding would support the 31 existing centers. It would also support $25 million in awards for new centers in quantum information science, microelectronics, chemical upcycling, and environmental management in the FY 2020 funding opportunity announcement, but short of the $40 million requested.
- The four **Bioenergy Research Centers** would be fully funded at $100 million.
- The two existing **Energy Innovation Hubs—**Energy Storage and Energy-Water Desalination—would be fully funded and up to $20 million is provided for the next competition for solar fuels research centers.
- **Mathematical, computational, and computer science research** would be funded at $155 million and $10 million would be provided for the **Computational Science Graduate Fellowship program.**
- The minibus provides $20 million for a new **negative emissions technologies** research and development program within the Office of Science, with at least $5 million focused on direct air capture.
- The bill provides increases for all **applied energy programs**, including renewable energy, energy efficiency, fossil energy, nuclear energy, grid modernization, and cybersecurity programs.
- The highest priority cross-cutting issues include the Grid Modernization Initiative, a new Advanced Energy Storage Initiative, cybersecurity of energy assets, small modular energy solutions for fossil, renewable energy, and nuclear applications, and direct air capture research and development.
- The minibus provides at least $40 million to support the **Nuclear Energy University Program**.
- The minibus would provide $28 million to fully fund two **Clean Energy Manufacturing Innovation Institutes**, including an existing one on industrial-scale materials production and processing and a new one currently being competed on cybersecurity for manufacturing.
- The minibus would provide $2.5 million to support the new **Office for Artificial Intelligence and Technology** at DOE charged with coordinating AI research and development activities across the Department and adopting AI technologies to improve DOE business operations.
- The minibus directs DOE to evaluate the benefits of creating a **DOE foundation** to leverage private sector funding to advance DOE-funded energy technologies.
- The minibus also directs DOE to develop a plan to respond to the recommendations of the Final Report of the Secretary of Energy Advisory Board Task Force on **Biomedical Sciences** to expand joint research efforts with the National Institutes of Health.
- NNSA's **Research, Development, Test, and Evaluation** program would see an increase of $384 million, or 19 percent, above the FY 2019 enacted level, with increased funding for all programs.
- The minibus would increase funding for the **academic alliance and partnership program** by $2.6 million, or 4.8 percent, above the FY 2019 enacted level, to fully fund the academic centers of excellence and expand the Minority Serving Institution Partnership program.
- The minibus would also fully fund the three **University Consortia for Nuclear Non-proliferation Research Centers**.

Department of Energy

(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Minibus	FY 2020 Minibus vs. FY 19 Enacted
DOE, total	**35,685,317**	**37,087,431**	**39,031,910**	**38,586,316**	**2,900,999 (8.1%)**
Science	**6,585,000**	**6,870,000**	**7,215,000**	**7,000,000**	**415,000 (6.3%)**
Advanced Scientific Computing Research	935,500	956,540	1,029,000	980,000	277,206 (39.4%)
Basic Energy Sciences	2,166,000	2,143,000	2,325,000	2,213,000	47,000 (2.2%)
Biological and Environmental Research	705,000	730,000	770,000	750,000	45,000 (6.4%)
Fusion Energy Sciences	564,000	688,000	570,000	671,000	107,000 (19.0%)
High Energy Physics	980,000	1,045,000	1,065,000	1,045,000	65,000 (6.6%)
Nuclear Physics	690,000	735,000	736,000	713,000	23,000 (3.3%)
Workforce Development for Teachers and Scientists	22,500	25,000	25,000	28,000	5,500 (24.4%)
Science Laboratories Infrastructure	232,890	250,830	394,000	301,000	68,110 (29.2%)
ARPA-E	**366,000**	**425,000**	**428,000**	**425,000**	**59,000 (16.1%)**
EERE	**2,379,000**	**2,651,713**	**2,800,000**	**2,790,000**	**411,000 (17.3%)**
Hydrogen and Fuel Cell Technologies	120,000	144,000	160,000	150,000	30,000 (30%)
Bioenergy Technologies	226,000	256,000	245,000	259,500	33,500 (14.8%)
Solar Energy Technologies	246,500	270,000	260,000	280,000	33,500 (13.6%)
Wind Energy Technologies	92,000	103,692	100,000	104,000	12,000 (13.0%)
Geothermal Technologies	84,000	90,000	115,000	110,000	26,000 (31%)
Water Power Technologies	105,000	125,000	160,000	148,000	43,000 (41.0%)

Vehicle Technologies	344,000	370,000	410,000	396,000	52,000 (15.1%)
Building Technologies	226,000	248,000	300,000	285,000	59,000 (26.1%)
Advanced Manufacturing Technologies	320,000	360,000	380,000	395,000	75,000 (23.4%)
Nuclear Energy	**1,326,090**	**1,317,808**	**1,517,808**	**1,493,408**	**167,318 (12.6%)**
Fossil Energy R&D	**740,000**	**740,000**	**800,000**	**750,000**	**10,000 (1.4%)**
Cybersecurity, Energy, Security, and Emergency Response	**120,000**	**150,000**	**179,000**	**156,000**	**36,000 (30.0%)**
Electricity	**156,000**	**200,000**	**221 ,000**	**190,000**	**34,000 (21.8%)**
National Nuclear Security Administration	**15,228,618**	**15,894,281**	**16,910,095**	**16,704,592**	**1,475,974 (9.7%)**
Weapons Activities	11,100,000	11,760,800	12,742,000	12,457,097	1,357,097 (12.2%)
Defense Nuclear Non-proliferation	1,930,000	2,074,930	2,085,000	2,164,400	234,400 (12.1%)

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201865%20-%20Division%20C%20-%20EW%20SOM%20FY20.pdf.

Department of Health and Human Services

National Institutes of Health

The minibus would provide $41.68 billion for the National Institutes of Health (NIH) in FY 2020, an increase of $2.6 billion, or 6.7 percent, above the FY 2019 enacted level. This marks the fifth consecutive funding increase for NIH and demonstrates Congress' strong bipartisan support for the agency.

The $41.68 billion provided for NIH includes $492 million for specific initiatives supported by the NIH Innovation Account, which was authorized by the *21st Century Cures Act* (Cures Act; P.L. 115-255). This is consistent with the long-term funding plan outlined in the Cures legislation. Regarding specific Cures research priorities, the minibus would provide $149 million for the All of Us precision medicine initiative, $140 million for the BRAIN Initiative, $195 million for the cancer moonshot, and $8 million for regenerative medicine.

Of note, the minibus would provide $500 million to National Institute of Neurological Disorders and Stroke (NINDS) and the National Institute on Drug Abuse (NIDA) for research related to opioid misuse and addiction, the development of non-addictive pain treatments, improved pain management, and opioid addiction treatment. In addition, the minibus would provide an increase of $350 million for Alzheimer's Disease and Related Dementias (ADRD) research, bringing total funding for ADRD research to $2.8 billion in FY 2020. Within the National Institute of General Medical Sciences (NIGMS), the minibus would provide $386.6 million, an increase of $25 million, for the Institutional Development Award (IDeA) program. In addition, the minibus would provide $578.1 million for the National Center for Advancing Translations Sciences (NCATS) Clinical and Translational Science Awards (CTSAs), a $18.4 million increase. Finally, the minibus would provide $50 million for grants for biomedical research facility construction, renovation, and remodeling.

The minibus would provide $212.5 million to the National Cancer Institute (NCI) to support more grant awards and improve success rates, given that applications submitted to NCI have increased by approximately 50 percent since 2013. Within the National Institute of Allergy and Infectious Disease (NIAID), the minibus would provide $511 million for research to address antimicrobial resistance (AMR), an increase of $50 million. The bill also includes $1.7 million for NIAID to fund a National Academies study to "examine and quantify the long-term medical and economic impacts of increasing AMR in the U.S." In addition, the minibus would provide $200 million to NIAID to further advance research related to the development of a universal influenza vaccine, an increase of $60 million. Other public health priorities addressed in the minibus include directing the NIH and the Centers for Disease Control (CDC) to each invest $12.5 million in research addressing firearm injury and mortality prevention.

The minibus would also retain the salary cap at Executive Level II, rejecting the President's FY 2020 budget request proposal to decrease it to Executive Level V. In addition, the bill retains a provision included in the last three NIH appropriations bills preventing the Administration from making any changes to facilities and administrative cost policies on NIH grant awards.

Report language included with the legislation addresses Congress' ongoing concerns with foreign threats to U.S. research infrastructure. The minibus directs NIH to continue its efforts to combat these threats and to expand its efforts in investigating potential misconduct, allocating no less than $5 million for NIH's work in partnership with the Health and Human Services (HHS) Office of National Security. In addition, the report accompanying the minibus highlights concerns regarding the issue of sexual harassment in the scientific research enterprise. The report directs NIH to require grantee institutions to notify the agency when grant personnel are removed due to sexual harassment allegations or concerns. It also directs NIH to submit its plans for addressing the issue of sexual harassment to the Appropriations Committees with the same level of attention that is devoted to research misconduct.

National Institutes of Health
(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Minibus	FY 2020 Minibus vs. FY 2019 Enacted
NIH, Total	**39,084,000**	**41,084,000**	**42,084,000**	**41,684,000**	**2,600,000 (6.65%)**
National Cancer Institute (NCI)	**6,143,892**	**6,444,165**	**6,351,863**	**6,225,442**	**81,550 (1.33%)**
National Heart, Lung, and Blood Institute (NHLBI)	**3,488,335**	**3,658,822**	**3,694,771**	**3,624,258**	**135,923 (3.90%)**
National Institute of Dental and Craniofacial Research (NIDCR)	**461,781**	**484,350**	**486,756**	**477,429**	**15,648 (3.39%)**
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)	**2,029,823**	**2,129,027**	**2,155,327**	**2,114,314**	**84,491 (4.16%)**
National Institute of Neurological Disorders and Stroke (NINDS)	**2,274,413**	**2,385,571**	**2,490,494**	**2,374,687**	**100,274 (4.41)**

National Institute of Allergy and Infectious Diseases (NIAID)	**5,523,324**	**5,808,268**	**5,937,816**	**5,885,470**	**362,146 (6.56%)**
National Institute of General Medical Sciences (NIGMS)	**2,872,780**	**3,033,183**	**2,969,113**	**2,937,218**	**64,438 (2.24%)**
Institutional Development Award (IDeA) Program	361,573	381,573	380,758	386,573	25,000 (6.91%)
Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)	**1,506,458**	**1,580,084**	**1,587,278**	**1,556,879**	**50,421 (3.35%)**
National Eye Institute (NEI)	**796,536**	**835,465**	**840,163**	**824,090**	**27,555 (3.46%)**
National Institute of Environmental Health Sciences (NIEHS)	**774,707**	**812,570**	**815,729**	**802,598**	**27,891 (3.60%)**
National Institute on Aging (NIA)	**3,083,410**	**3,286,107**	**3,606,040**	**3,543,673**	**460,263 (14.93%)**
National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)	**605,065**	**634,637**	**637,097**	**624,889**	**19,824 (3.28%)**
National Institute on Deafness and Other Communications Disorders (NIDCD)	**474,404**	**497,590**	**500,270**	**490,692**	**16,288 (3.43%)**
National Institute of Mental Health (NIMH)	**1,870,296**	**1,961,704**	**2,076,244**	**1,968,374**	**98,078 (5.24%)**
National Institute on Drug Abuse (NIDA)	**1,419,844**	**1,489,237**	**1,490,498**	**1,462,016**	**42,172 (2.97%)**
National Institute on Alcohol Abuse and Alcoholism (NIAAA)	**525,591**	**551,278**	**556,010**	**545,373**	**19,782 (3.76%)**

National Institute on Nursing Research (NINR)	**162,992**	**170,958**	**411,496**	**169,113**	**6,121 (3.76%)**
National Human Genome Research Institute (NHGRI)	**575,579**	**603,710**	**607,999**	**606,349**	**30,770 (5.35%)**
National Institute of Biomedical Imaging and Bioengineering (NIBIB)	**389,464**	**408,498**	**411,496**	**403,638**	**14,174 (3.64%)**
National Institute on Minority Health and Health Disparities (NIMHD)	**314,679**	**341,244**	**330,968**	**335,812**	**21,133 (6.72%)**
National Center for Complementary and Integrative Health (NCCIH)	**146,473**	**153,632**	**154,695**	**151,740**	**5,267 (3.60%)**
National Center for Advancing Translational Sciences (NCATS)	**806,373**	**845,783**	**849,159**	**832,888**	**26,515 (3.29%)**
John E. Fogarty International Center (FIC)	**78,109**	**84,926**	**82,388**	**80,760**	**2,651 (3.39%)**
National Library of Medicine (NLM)	**441,997**	**463,599**	**465,837**	**456,911**	**14,914 (3.37%)**
Office of the Director (OD)	**1,909,075**	**2,049,992**	**2,344,022**	**2,239,787**	**330,712 (17.32%)**
Common Fund	606,566	617,761	638,751	626,511	**19,945 (3.29%)**
NIH Innovation Account	**711,000**	**492,000**	**195,000**	**492,000**	**-219,000 (30.80%)**
Buildings and Facilities	**200,000**	**200,000**	**200,000**	**200,000**	--

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201865%20-%20Division%20A%20-%20LHHS%20SOM%20FY20.pdf.

Other Agencies Within HHS

In addition to discretionary funding for the Department of Health and Human Services (HHS), the minibus would extend funding for several expiring healthcare programs—which receive mandatory funding—through May 22, 2020. This includes funding for federally qualified health centers (FQHCs), the Teaching Health Center Graduate Medical Education (THCGME) program, and the National Health Services Corps, among others. The minibus would also delay cuts to Medicaid Disproportionate Share Hospital (DSH) payments through May 22, 2020. Speaker of the House Nancy Pelosi (D-CA) wants to use the May 22 deadline to push Congress to pass surprise medical billing and prescription drug pricing legislation, which would contain savings that would be used to offset the longer-term funding of these Medicare and Medicaid extenders. Despite bipartisan efforts to address both issues in Congress this year, legislation has yet to advance and Congress will punt these items to next year.

Additionally, the Patient-Centered Outcomes Research Institute (PCORI) would also be authorized for another ten years of funding to continue to conduct clinical comparative effectiveness research. PCORI would receive approximately $2.9 billion over the ten-year extension. The extension also contains language to include intellectual and developmental disabilities and maternal mortality as research priorities, and includes consideration of the full range of outcomes data such as "potential burdens and economic impacts of the utilization of medical treatments, items, and services on different stakeholders and decision-makers respectively."

The deal also repeals three of the more controversial taxes from the *Patient Protection and Affordable Care Act* (ACA) that were originally included to offset the cost of the law. The repealed taxes are the Cadillac tax (a 40% tax on high-cost plans), a 2.3 percent tax on medical devices, and the market share-based health insurance tax.

The minibus would provide funding for several new behavioral health education and training programs at the Health Resources and Services Administration (HRSA), which have been authorized over the last several years through various legislative vehicles but have not yet been funded. These programs are under the Title VII Health Professions programs at HRSA. The Behavioral Health Workforce Education and Training (BHWET) program would receive a $27 million increase above the FY 2019 enacted level. The BHWET program was one of the only Title VII programs not proposed for a cut in the President's FY 2020 budget request. Within the increase for BHWET, $26.7 million would be used for a new Mental and Substance Use Disorder Workforce Training Demonstration, which was originally authorized in *21st Century Cures* legislation in 2016 but has not yet been funded. This funding would "make grants to institutions including but not limited to medical schools and FQHCs to support training for medical residents and fellows in psychiatry and addiction medicine, as well as nurse practitioners, physician assistance, and others, to provide [substance use disorder] treatment in underserved communities." In addition, $10 million through the BHWET program would support a new Loan Repayment Program for the Substance Use Disorder Treatment Workforce, which was recently passed in the *Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act* (*SUPPORT) Act*.

The Area Health Education Centers (AHECs), which were proposed for elimination in the President's FY 2020 budget request, would receive a $2 million increase over the FY 2019 enacted level. Regarding AHECs, the minibus "encourages HRSA to invest in interprofessional networks that address social determinants of health and incorporate field placement programs for rural and medically-underserved

populations." In addition, the Scholarships for Disadvantaged Students program at HRSA would receive a $2.5 million increase for training midwives in an effort to "address the lack of diversity in the maternity care workforce."

Title VIII Nursing Workforce Development Programs at HRSA would receive $259.9 million in the minibus, which is a $10 million increase over the FY 2019 enacted level. This includes $2 million for a new program to award grants through the Nurse Education, Practice, Quality and Retention program for experimental learning opportunities, including the purchase of simulation training equipment. The minibus gives priority for this funding to grantees located in medically underserved areas with high burden of stroke, heart disease, and obesity and high-poverty rate communities, among others.
The Agency for Healthcare Research and Quality (AHRQ), which was proposed for elimination in the President's budget request would receive $338 million, equal to the FY 2019 enacted level.
Regarding graduate medical education, the minibus would address the issue of small hospitals that accidently trigger their cap on residency slots by "strongly" encouraging the Centers for Medicare and Medicaid Services (CMS) to utilize its discretion to extend the time before a full-time equivalent resident cap is applied.

The Centers for Disease Control and Prevention (CDC) would receive a total of $7.9 billion in funding for FY 2020, which is a $637 million increase over the FY 2019 enacted level. The minibus includes $140 million in new funding for the President's HIV Initiative which aims to reduce new HIV infections by 90 percent within the next 10 years. For the first time in more than two decades, the bill also includes $25 million in funding to support gun violence injury and prevention research. Funding for firearm injury and mortality prevention research would be split between the CDC and National Institutes of Health (NIH), with $12.5 million dedicated to the CDC. With respect to Alzheimer's disease research, the minibus would include $15.5 million in funding to implement the *BOLD Infrastructure for Alzheimer's Act (Bold Act),* which would "establish regional centers of excellence that address Alzheimer's disease and related dementias; support data collection on the incidence and prevalence of such conditions; and provide support for cooperative agreements to health departments for the purpose of addressing Alzheimer's and related dementias." This is half a million less than what is authorized in the *Bold Act*.
Additionally, the minibus incudes $170 million for the Antibiotic Resistance Initiative, which is an increase of $2 million over the FY 2019 enacted level. The minibus also emphasizes the need to address antimicrobial resistance (AMR) through a "One Health" approach. With respect to environmental health activities, the minibus would provide $213.9 million for Environmental Health programs, which is an increase of $4.5 million over FY 2019. The minibus would also provide $2 million in increased funding to support activities to eradicate Lyme disease and related tick-borne illnesses, particularly in coordination with the National Institute of Mental Health (NIMH) and National Institute of Neurological Disorders and Stroke (NINDS) on surveilling for long-term effects. Other notable CDC initiatives highlighted in the minibus include efforts to coordinate with higher education institutions to reduce the incidence of sexual assault on campus, as well funding to "focus prevention efforts on vulnerable populations that have been identified at higher risk for suicidal behaviors than the general population."

Within the Substance Abuse and Mental Health Services Administration (SAMHSA), the minibus would continue $1.5 billion for State Opioid Response Grants to support prevention and treatment efforts. Additionally, the agreement would provide funding for $2 million in new grants to support Comprehensive Opioid Recovery Centers to deliver comprehensive treatment and recovery services in rural communities. Previous recipients of the HRSA Rural Communities Opioid Response Program Planning Grants would be eligible for these SAMHSA grants, as authorized in the *SUPPORT Act.* The minibus would also provide $5 million in new funding for grants to hospitals and emergency

departments to determine opioid alternatives. Additionally, of interest to universities, the minibus would provide $13 million for a new competitive process under SAMHSA's National Child Traumatic Stress Initiative. Universities, hospitals, and community-based programs would receive expanded support under this initiative, specifically prioritizing mental health services for "unaccompanied alien children."

The Office of the National Coordinator for Health Information Technology (ONC) would receive level funding at $60.4 million for FY 2020. The minibus includes language on patient matching – or accurately matching different health records to the same patient - and encourages HHS to "provide technical assistance to private-sector-led initiatives to develop a coordinated national strategy that will promote patient safety by accurately identifying patients to their health information." ONC is also instructed to provide a report in one year that details the methods that improve patient identification and recommends actions "that increase the likelihood of an accurate match of patients to their health care data." The language also leaves open the possibility that one of these recommendations can be focused on a unique patient health identifier.

Department of Health and Human Services (Other)

(In millions of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Omnibus	Omnibus vs. FY 19 Enacted
Health Resources and Services Administration (HRSA)	**7,161**	**7,635**	**7,226**	**7,333**	**172 (2.4%)**
Title VII	392	455	385	425	33 (8.4%)
Title VIII	249	279	253	260	11 (4.4%)
Substance Abuse and Mental Health Services Administration (SAMHSA)	**5,742**	**5,857**	**5,857**	**5,882**	**140 (2.4%)**
Mental Health Services	1,558	1,652	1,658	1,678	120 (7.7%)
Substance Abuse Treatment	3,819	3,832	3,833	3,838	19 (0.5%)
Substance Abuse Prevention	366	373	366	367	1 (0.3%)
Agency for Healthcare Research and Quality (AHRQ)	**338**	**358**	**256**	**338**	**--**
Centers for Disease Control and Prevention (CDC)	**7,338**	**8,258**	**7,518**	**7,975**	**637 (8.7%)**
Chronic Disease Prevention and Health Promotion	933	1,080	897	985	52 (5.6%)
National Institute for Occupational Safety and Health (NIOSH)	336	346	339	343	7 (2.1%)
Environmental Health	192	226	194	197	5 (2.6%)

Administration on Community Living (ACL)	**2,197**	**2,377**	**2,175**	**2,251**	**54 (2.5%)**
National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR)	109	109	112	112	3 (2.8%)
Administration for Children and Families (ACF)	**38,413**	**42,834**	**33,878**	**39,523**	**1,110 (2.9%)**
Office of the National Coordinator for Health IT (ONC)	**60**	**60**	**60**	**60**	**--**

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201865%20-%20Division%20A%20-%20LHHS%20SOM%20FY20.pdf.

Department of Homeland Security

The Department of Homeland Security (DHS) would receive about $68 billion in the omnibus bill, which is $6.4 billion above the FY 2019 enacted level. Overall, the narrative tracks with the final FY 2019 spending bill. The agency would receive a sizable funding boost due in part to enhanced support for items like disaster relief through a $5.7 billion increase for the Federal Emergency Management Agency (FEMA) and a $334 million increase for the Cybersecurity and Infrastructure Security Agency (CISA). While the bill's investments in border fencing would be about the same as last year and well below the amounts requested by the President, the Administration is expected to reallocate funds from other accounts. To offset these investments, Congress cut funding for the research and development (R&D) of security technologies, among other agency functions.

Most notably, the minibus would provide $737 million for Science and Technology (S&T), which is $82 million less than FY 2019, but more than the amounts proposed in the House and Senate bills. The package also sustains $40.5 million in funding for the Office of University Programs (OUP) to support the DHS Centers of Excellences (COEs). In addition, the bill calls for an increase of $7.1 million above the enacted level for CISA to expedite national cybersecurity education and training activities. According to the report, these efforts include developing "content that includes partnering with at least two academic institutions of higher education to cultivate a non-traditional workforce, focused on reaching rural, minority, gender diverse, and veteran populations. These efforts could include cybersecurity competitions and associated costs to identify cyber excellence throughout the nation and within the federal government." Outcomes should align with recommendations made in the 2017 Executive Order *Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure*.[1]

Unlike previous funding measures, the omnibus does not provide specific funding amounts for R&D in defined topic areas. Rather, the bill charges S&T to consider carrying out projects referenced in the respective House and Senate bills, which include research related to areas like cybersecurity; cyber-physical systems; cargo and port-of-entry security; opioids/fentanyl detection; countering and enabling Unmanned Aerial Systems (UAS); first responder technologies; and several other areas. Finally, the omnibus again recognizes S&T as the central component for DHS R&D and rejects a proposal in the President's budget request to move cybersecurity research from S&T to CISA.

[1] https://www.dhs.gov/cisa/executive-order-strengthening-cybersecurity-federal-networks-and-critical-infrastructure

Department of Homeland Security

(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Omnibus	Omnibus vs. FY 19 Enacted
DHS, total	**61,575,000**	**63,811,000**	**63,314,844**	**68,008,112**	**6,433,112 (10.4%)**
Science and Technology Directorate	**819,785**	**665,680**	**710,403**	**737,275**	**-82,510 (10.1%)**
University Programs	40,500	40,500	40,500	40,500	--

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201158%20-%20Division%20D%20-%20Homeland%20SOM%20FY20.pdf.

Department of Justice

The U.S. Department of Justice (DOJ) would receive approximately $32.6 billion in FY 2020, an increase of over $1.6 billion (5.4 percent) above the FY 2019 enacted level. Despite the overall increase, key research accounts at DOJ would receive a slight funding cut. 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, would receive $36 million in FY 2020. This would be a $1 million (1.7 percent) cut compared to the FY 2019 level.

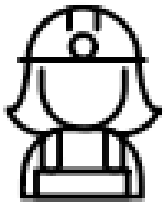
The bill would set aside funding for several specific topics within the NIJ budget, including: $5 million for research on domestic radicalization; $1 million for research on school safety, including the impact effectiveness of *STOP School Violence Act* grants; $1 million for a national study on law enforcement responses to sex trafficking of minors; and $2 million to establish a National Center on Forensics to improve forensic science education and training. The bill would further specify that NIJ should seek to facilitate a partnership between a university with medical and law schools, a state department of forensic science, and a statewide district attorneys association when establishing the center, as directed in the Senate version of the bill.

The bill would also provide $6.5 million for the Community Policing Development Program, which provides resources to various organizations, including universities, to seek innovative ways to improve relations between police and the communities they serve. The bill would provide an additional $500,000 for the program over the enacted level and notes that funding for diversity and inclusion training for law enforcement should be made available under the program.

Department of Justice
(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Omnibus	Omnibus vs. FY 2019 Enacted
DOJ, total	**30,934,388**	**31,999,949**	**32,446,203**	**32,605,237**	**1,670,849 (5.4%)**
Research, Evaluation, and Statistics	**80,000**	**80,000**	**80,000**	**79,000**	**-1,000 (1.3%)**
National Institute of Justice	37,000	37,000	37,000	36,000	-1,000 (2.7%)

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201158%20-%20Division%20B%20-%20CJS%20SOM%20FY20.pdf.



Department of Labor

The bill would fund the Department of Labor (DOL) at $12.4 billion in discretionary funding. The bill would provide $9.3 billion for the Employment Training Administration, $175 million for Registered Apprenticeships, and $40 million for investments in community colleges and four-year institutions through "Strengthening Community College Training Grants." These grants would support training for workers and students in industries such as manufacturing, information technology, health care, and energy among others. This continues to build on efforts by DOL to engage institutions of higher education in workforce development.

Report language accompanying the bill makes clear that the $175 million for registered apprenticeships is to be used only to support registered apprenticeships. DOL is also directed to fund intermediaries and partnerships and to "expand registered apprenticeships into new industries and for underserved or underrepresented populations." The Veterans Employment and Training Service (VETS) would be funded at $311 million.

Department of Labor

(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Omnibus	Omnibus vs. FY 2019 Enacted
Apprenticeship Program	160,000	250,000	170,000	175,000	15,000 (9.4%)
Veterans' Employment and Training	300,041	316,341	306,000	311,341	11,300 (3.8%)

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201865%20-%20Division%20A%20-%20LHHS%20SOM%20FY20.pdf.

Department of Transportation

The final agreement would provide $86.2 billion for the U.S. Department of Transportation (DOT) – $324.9 million below than the FY 2019 enacted level.

The agreement includes $5 million for DOT to establish additional Tier 1 University Transportation Centers. This is less than the $15 million included in the House bill, but a win given the lack of support in the Senate. The House report and the agreement's explanatory statement is silent on the number of Tier 1s or topical foci, however one scenario DOT may pursue involves establishing a single Tier 1 center with the $5 million covering the total lifecycle of its activities. This is consistent with congressional intent and DOT's execution of language in the FY 2018 omnibus appropriations bill that established two new National UTCs. How those National UTCs and any new Tier 1 centers fit within the concurrent surface transportation (FAST Act) reauthorization process currently underway by authorizers remains to be seen. The agreement also includes $5 million for a new Highly Automated Systems Safety Center of Excellence that would "review, assess, and validate the safety of highly automated systems across all modes of transportation."

Building on a growing focus of transportation authorizers and appropriators, the agreement includes several provisions related to infrastructure resilience. The explanatory statement directs DOT to sponsor a report by the National Academies study to develop metrics for transportation resilience as well as provide a report to appropriators on "best practices and designs for resilient infrastructure that also is resistant to accelerated degradation after flooding and/or saltwater intrusion." Additionally, both the House and Senate reports prioritize the importance of collaboration with state, local and academic partners to enhance resilience.

The minibus includes perennial language that would allow for state DOTs to repurpose earmarked funding for highway projects towards new projects within 25 miles of the original site. This would only apply to congressional earmarks prior to 2010 and for projects that either allocated less than 10 percent of the total earmarked amount as of October 1, 2019, or funds leftover after a project's completion. Eligibility criteria are those that would qualify for funding under DOT's State Transportation Block Grant (STBG) Program. Examples include but are not limited to the installation of vehicle-to-infrastructure communication equipment; border infrastructure projects; highways, bridges, and tunnels; and certain transit capital projects. It is anticipated DOT will release information on the total amount and location of funding available to each state in the coming months. Universities with an interest in leveraging this funding for campus infrastructure are encouraged to contact their state DOTs.

The Federal Highway Administration (FHWA), which operates the Turner-Fairbank Highway Research Center and is responsible for most of the intramural transportation and infrastructure research and development at DOT, would be flat funded at $49.2 billion.

The National Highway Transportation Safety Administration (NHTSA), the agency with regulatory oversight of autonomous vehicles, would be funded at $989.3 million, a 2.4 percent or $23 million increase from the FY 2019 enacted level. Within this, $17.9 million would be provided for NHTSA to conduct research on autonomous vehicles and create a research plan focused on passenger and pedestrian safety.

The agreement would also include $1 billion for the National Infrastructure Investments (Formerly the BUILD program) and rejects the House's requirement that FY 2020 awards focus on multimodal projects. Instead, DOT would be directed to support a variety of projects across the modal spectrum. Universities have had success pursuing funding through this program by joining state- and local government-led proposals that include capital projects impacting campuses.

Department of Transportation

(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Minibus	Minibus vs. Enacted
DOT, total	**86,480,532**	**86,647,629**	**86,647,959**	**86,155,665**	**-324,867 (0.4%)**
FHWA	49,257,596	48,854,092	49,804,092	49,270,232	12,636 (0.02%)
NHTSA	966,308	1,009,890	972,317	989,317	23,009 (2.4%)
FTA	13,413,672	13,474,134	12,956,513	12,910,348	-503,324 (3.75%)
FRA	2,873,898	2,969,898	2,819,298	2,793,798	-80,100 (2.8%)
FMCSA	666,800	676,800	679,136	679,136	12,336 (1.9%)
FAA	17,451,858	17,718,858	17,688,54	17,617,665	165,805 (0.9%)
PHMSA	275,028	281,028	277,533	281,533	6,505 (2.4%)
MARAD	1,115,372	1,052,642	904,499	1,047,869	**-67,503 (6.1%)**

Note: Topline levels are based on total budgetary resources.
Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201865%20-%20Division%20H%20-%20THUD%20SOM%20FY20.pdf.

Environmental Protection Agency

The minibus would provide the U.S. Environmental Protection Agency (EPA) with $9.1 billion in FY 2020, which is $998.9 million or 12.4 percent above FY 2019. Consistent with both the House and Senate marks, State and Tribal Assistance Grants (STAG) would account for the majority of the proposed increase. Infrastructure Assistance programs within STAG, particularly those oriented toward clean water and drinking water, would see the largest gains.

The minibus would maintain the inclusion of longstanding language limiting the Administration's ability to implement substantial reprogramming activities without approval from Congress. The legislation would also increase scrutiny on the Administration's use of appropriated funding by directing the agency to submit a detailed operating plan that "shall adhere to the program area levels, and where applicable, program project levels, specified within this explanatory statement."

EPA **S&T** would receive $716.4 million in FY 2020, an increase of $10 million or 1.6 percent above the FY 2019 enacted level. This would be the first funding increase for EPA S&T since FY 2010. This amount would include a $30.7 million transfer from the Hazardous Substance Superfund account to support ongoing research relevant to clean-up efforts.

Consistent with the appropriations enacted the last two fiscal years, the FY 2020 minibus includes flat funding for the **Science to Achieve Results (STAR)** program, though the amount is unspecified. The report also includes language directing the agency to develop a plan for implementing a grant process for the Children's Environmental Health and Disease Prevention Research Centers, which are jointly funded by EPA and the National Institute for Environmental Health Sciences. STAR is EPA S&T's primary mechanism for funding extramural research, but the program has received declining or stagnant budgets since 2002. The Administration has proposed to eliminate STAR in its past three budget requests.

The minibus would provide $6 million to support water quality and availability research by nonprofit organizations through **National Priorities** grants, $1 million more than in FY 2019. These grants are independent of STAR, and preference is generally given to research proposals that include a national scope and a 25 percent match. The report language directs EPA to "strive to award grants in as large an amount as is possible to achieve the most scientifically significant research."

The explanatory report for the minibus contains several specific allocations and directives related to core S&T programs. These include: $94.5 million for **Air and Energy**, including $4.5 million for research in partnership with nonprofit entities on the effectiveness of regulations on "unconventional oil and gas

development" as articulated in the FY 2018 omnibus[2]; $126.3 million for **Chemical Safety and Sustainability**; $5.9 million for **Pesticide Licensing**; $132.5 million for **Sustainable and Healthy Communities**; and $110.9 million for **Safe and Sustainable Water Resources**. Additional provisions would support a $6 million research effort on Harmful Algal Blooms and establish new $500,000 and $2 million initiatives on microplastics and enhanced aquifer recharge (EAR), respectively, through the Safe and Sustainable Water Resources program. For the latter, the minibus would direct EPA to spend the allotted amount on research at its centers and to partner with universities. The language also specifies that these activities are to be carried out in collaboration with USGS.

Finally, the minibus would adopt House language requiring EPA to meet several reporting requirements and 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, before carrying out the rule, the agency would be required to address the full range of concerns expressed by the Science Advisory Board. 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.

Environmental Protection Agency

(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Minibus	FY 2020 Minibus vs. FY 2019
EPA, total	**8,058,488**	**9,521,691**	**9,010,839**	**9,057,401**	**998,913 (12.4%)**
Science and Technology	**706,473**	**727,633**	**713,259**	**716,449**	**9,976 (1.4%)**

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201865%20-%20Division%20D%20-%20Interior%20SOM%20FY20.pdf.

[2] The *Consolidated Appropriations Act of 2018* (P.L. 115-141), otherwise known as the FY 2018 omnibus, is available at https://docs.house.gov/billsthisweek/20180319/DIV%20G%20INTERIOR%20SOM%20FY18%20OMNI.OCR.pdf.

Institute of Museum and Library Services

Institute of Museum and Library Services

The bill would provide $252 million for the Institute of Museum and Library Services (IMLS) in FY 2020, a $10 million (4.1 percent) increase over the FY 2019 level.

Most of the increased funding would go towards the Grants to States program within the Library Services account and the Museums for America program within the Museum Services account. Both the National Leadership Grants for Libraries program and the National Leadership Grants Program for Museums program would receive flat funding.

In the absence of specific congressional directives or instruction relevant to universities, IMLS will likely continue signature and ongoing programs.

Institute of Museum and Library Services
(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Omnibus	Omnibus vs. FY 19 Enacted
IMLS, total	**242,000**	**267,000**	**244,000**	**252,000**	**10,000 (4.1%)**
Library Services	**189,272**	**146,272**	**190,272**	**195,472**	**6,200 (3.3%)**
National Leadership Grants: Libraries	13,406	13,406	13,406	13,406	--
Museum Services	**32,484**	**38,984**	**33,484**	**35,784**	**3,300 (10.2%)**
Museums for America	22,899	28,899	23,899	25,899	3,000 (13.1%)
National Leadership Grants: Museums	8,113	8,313	8,113	8,113	--

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201865%20-%20Division%20A%20-%20LHHS%20SOM%20FY20.pdf.

National Aeronautics and Space Administration

The National Aeronautics and Space Administration (NASA) would receive $22.63 billion in FY 2020, an increase of $1.13 billion or 5.3 percent over the FY 2019 enacted level. In line with the Administration's focus on returning humans to the Moon, the vast majority of the additional funding—85.6 percent—would be allocated toward programs within the Human Exploration and Operations Mission Directorate. Other NASA programs would not see commensurate growth, but Aeronautics, Space Technology, Science, and STEM Engagement would each receive increases ranging between modest and significant.

The minibus would provide $7.13 billion for the **Science Mission Directorate (SMD)**, an increase of $233.2 million or 3.4 percent above FY 2019. The additional funding would be applied unevenly, with $118.6 million—more than half of the overall SMD increase—allocated to the James Webb Space Telescope. Astrophysics would also receive a significant increase (9.6 percent) to accommodate continued development of WFIRST. Earth Science and Heliophysics would grow more modestly at 2.1 percent and 0.6 percent, respectively, while funding for Planetary Science would be reduced by $45.1 million or 1.6 percent.

The minibus is supportive of NASA missions across SMD. This includes those proposed for cancellation by the Administration such as PACE ($131 million) and CLARREO Pathfinder ($26 million) within Earth Science, Europa Lander ($195 million) within Planetary Science, and WFIRST ($510.7 million). The explanatory statement also expresses support for NASA's new approach to Near Earth Object (NEO) tracking through the NEO Surveillance System (NEOSS). In addition, the minibus would provide strong funding for competitively selected, PI-led mission lines such as Earth Venture Class Missions, New Frontiers and Discovery within Planetary Science[3], and Heliophysics Explorer. The legislation would also allocate funding for SMD research and technology programs above the request, including: $321.2 million for Earth Science Research and Analysis, $25 million above the request; and $40 million for Icy Satellites Surface Technology, $37.8 million over the request.

The Mars Exploration Program (MEP) would receive $570 million. The amount would provide unspecified levels of funding for development close-out of the Mars 2020 mission and to further develop a Mars sample return mission for launch in 2026. The minibus would adopt language, included in both the initial House and Senate reports, requiring NASA to submit a comprehensive lifecycle profiles for the sample return mission and endorsing a mid-decadal review of the MEP architecture.

[3] The explanatory statement erroneously switched the funding figures for the Discovery and New Frontiers programs. The correct allocations for FY 2020 are $502.7 million for Discovery and $190.4 million for New Frontiers.

The legislation would fully fund the Administration's request of $300 million for the Lunar Discovery and Exploration Program (LDEP), including $170 million for Commercial Lunar Payload Services. LDEP supports the Administration's broader agenda to leverage commercial capabilities in support of a pivot to human exploration of the lunar environment. SMD will use this funding to provide scientific support for this campaign and is anticipated to announce a new competition for science payloads in FY 2020.

In keeping with FY 2019, the FY 2020 minibus would reject the Administration's proposal to eliminate the **Space Technology Mission Directorate (STMD)** and reorient its constituent activities toward human exploration. Instead, the legislation would maintain STMD as a standalone entity and provide an increase of 18.7 percent for a total of $1.1 billion. Within that amount, the minibus would specify funding levels for activities associated with nuclear thermal propulsion, solar electric propulsion, additive manufacturing, the Restore-L satellite servicing mission, the Regional Economic Development program, the Flight Opportunities program, and the Air Revitalization Initiative.

The explanatory statement contains few directives for the **Aeronautics Research Mission Directorate (ARMD)**, allowing for the adoption of myriad language included in the initial House and Senate marks. This includes explicit support for the University Leadership Initiative, which supports multidisciplinary research relevant to ARMD at university-based centers, as well as the House-proposed $60 million for hypersonics research and an increase of $7 million for university-led research on advanced materials proposed by the Senate.

Consistent with the past three fiscal years, the minibus would reject the Administration's proposal to eliminate the Office of STEM Engagement. The Office would be funded at $120 million, within which $48 million would be directed to Space Grant, $4 million above FY 2019. 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 of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Minibus	FY 2020 vs. FY 2019
NASA, total	**21,500,000**	**22.315.000**	**22,750,000**	**22,629,000**	**1,129,000 (5.3%)**
Science	**6,905,700**	**7,161,300**	**6,905,700**	**7,138,900**	**233,200 (3.4%)**
Earth Science	1,931,000	2,023,100	1,945,000	1,971,800	40,800 (2.1%)
Planetary Science	2,758,500	2,713,400	2,631,100	2,713,400	-45,100 (1.6%)
Astrophysics	1,191,600	1,367,700	1,171,600	1,306,200	114,600 (9.6%)
James Webb Space Telescope	304,600	352,600	423,000	423,000	118.600 (38.9%)
Heliophysics	720,000	704,500	735,000	724,500	4,500 (0.6%)

Education and Public Outreach (EPO)[4]	44,000	N/A	45,600	45,600	1,600 (3.6%)
Aeronautics	**725,000**	**700,000**	**783,900**	**783,900**	**58,900 (8.1%)**
Space Technology	**926,900**	**1,291,600**	**1,076,400**	**1,100,000**	**173,100 (18.7%)**
Exploration	**5,050,800**	**5,129,900**	**6,222,600**	**6,017,600**	**966,800 (19.1%)**
Space Operations	**4,639,100**	**4,285,700**	**4,150,200**	**4,140,200**	**-498,900 (10.8%)**
STEM Engagement	**110,000**	**123,000**	**112,000**	**120,000**	**10,000 (9.1%)**
Aerospace Research & Career Dev.	65,000	73,000	69,000	72,000	7,000 (10.8%)
Space Grant	44,000	48,000	47,000	48,000	4,000 (9.1%)
EPSCoR	21,000	25,000	22,000	24,000	3,000 (14.3%)
Minority University Research and Education Project	33,000	37,000	33,000	36,000	3,000 (9.1%)
Safety, Security, & Mission Services	**2,755,000**	**3,084,600**	**2,934,800**	**2,913,300**	**158,300 (5.7%)**
Construction and Environmental Compliance and Restoration	**348,200**	**497,200**	**524,400**	**373,400**	**25,200 (7.2%)**
Office of Inspector General	**39,300**	**41,700**	**40,000**	**41,700**	**2,400 (6.1%)**

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201158%20-%20Division%20B%20-%20CJS%20SOM%20FY20.pdf.

[4] In keeping with Senate direction and the Administration's request, funding for SMD-wide EPO activities is administered by the Astrophysics Division and included within the Division's budget.

National Endowment for the Humanities & National Endowment for the Arts

National Endowment for the Arts and National Endowment for the Humanities

The bill would provide $162.25 million each to the National Endowment for the Humanities (NEH) and the National Endowment for the Arts (NEA), an increase of $7.25 million (4.7 percent) over the FY 2019 levels for each agency. This would fall between the House-proposed level of $167.5 million and the Senate-proposed level of $157 million for the agencies, which had once again been targeted for elimination in the FY 2019 President's budget request.

The accompanying report would specifically direct $4.172 million of NEH's total funding towards the new "A More Perfect Union" initiative, with a focus on the U.S. Semiquincentennial (250th year), civics education, and veterans programming. The report also contains language encouraging NEH to continue the National Digital Newspapers Program and the Landmarks of American History and Culture workshops, both part of the former "We the People" initiative, and incorporate those programs into the "A More Perfect Union" initiative.

National Endowment for the Humanities & National Endowment for the Arts
(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Omnibus	Omnibus vs. FY 2019 Enacted
NEH, total	**155,000**	**167,500**	**157,000**	**162,250**	**7,250 (4.7%)**
Research Programs	14,500	14,500	14,000	14,500	--
Education Programs	12,250	12,500	12,250	12,250	--
Federal/State Partnerships	48,000	51,000	48,500	50,028	2,028 (4.2%)
NEA, total	**155,000**	**167,500**	**157,000**	**162,250**	**7,250 (4.7%)**
Grants	73,710	80,922	74,330	77,760	4,050 (5.5%)
State and Regional Partnerships	49,140	50,948	49,220	51,840	2,700 (5.5%)

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201865%20-%20Division%20D%20-%20Interior%20SOM%20FY20.pdf.

National Science Foundation

The National Science Foundation (NSF) is funded at $8.278 billion in the final appropriations deal, an increase of $203 million or 2.5 percent over the fiscal year (FY) 2019 enacted level. This amount is $39 million below the Senate proposed amount, $358 million below the House proposal, and $1.2 billion over the President's request.

The Research and Related Activities (R&RA) account, which funds all of NSF's research directorates, is funded at $6.74 billion, an increase of 3.3 percent or $217 million over the FY 2019 level. The report reiterates both House and Senate report language related to support for existing NSF research and research infrastructure. The conference report would provide no less than the requested level of $492 million for research related to Artificial intelligence (AI). Additionally, $190 million is provided for the Established Program to Stimulate Competitive Research (EPSCoR), which is the same as the Senate proposed level and $38 million above the President's request. The agreement would provide a $5 million increase over FY 2019 funding for I-Corps. Additional language would provide $18 million for the Historically Black Colleges and Universities (HBCU) Excellence in Research Program and would adopt Senate language regarding the U.S. Neutron Monitor Network while also requiring NSF coordination with other research agencies on the Network.

The final deal would provide $243.2 million for the Major Research Equipment and Facilities Construction Account (MREFC), $52 million below the FY 2019 level but $20 million more than the House and request proposed. This amount includes requested funding for all ongoing MREFC construction projects: Antarctic Infrastructure Modernization for Science, High Luminosity – Large Hadron Collider Upgrade, and the Large Synoptic Survey Telescope. Additionally, $65 million would be provided for Mid-Scale Research Infrastructure, $10 million below the Senate proposed level, but $20 million above the House and budget request levels.

The deal would provide $940 million for the Education and Human Resources (EHR) account, $30 million or 3.3 percent above the FY 2019 level. The explanatory statement would increase funding for Hispanic Serving Institutions (HSI) to $45 million, $5 million above the FY 2019 level and $35 million more than requested. The deal would also maintain funding for the HBCU Undergraduate Program and Tribal Colleges and Universities Program (TCUP); increase funding for the Louis Stokes Alliances for Minority Participation to $47.5 million ($1.5 million above the FY 2019 level); provides the requested level of $75 million for Advanced Technological Education ($9 million above the FY 2019 level); and would provide $67 million ($2.5 million above the FY 2019 level) for the Robert Noyce Teacher Scholarship Program as proposed by the House.

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 the Big Ideas, online influence, coastlines and people, the National Ecological Observatory Network (NEON), social and behavioral

science, artificial intelligence, lead testing, advanced manufacturing, high energy physics, harmful algal blooms, geospatial data, low energy nuclear reactions, plant genome research, cybersecurity research, marine research facilities, computer science education, math institutes, astronomy, and supercomputing planning.

National Science Foundation

(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Final Deal	FY 2020 Final vs. FY 2019 Enacted
NSF, total	**8,075.00**	**8,636.14**	**8,317.00**	**8,278.33**	**203.33 (2.5%)**
Research and Related Activities	6,520.00	7,106.30	6,769.67	6,737.20	217.20 (3.3%)
Education and Human Resources	910.00	950.00	937.00	940.00	30.00 (3.3%)
Major Research Equipment and Facilities Construction	295.74	223.23	253.23	243.23	-52.51 (17.8%)
Agency Operation and Award Management	329.54	336.89	336.90	336.90	7.36 (2.2%)
National Science Board	4.37	4.37	4.50	4.50	0.13 (3.0%)
Office of Inspector General	15.35	15.35	15.70	16.50	1.15 (7.5%)

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201158%20-%20Division%20B%20-%20CJS%20SOM%20FY20.pdf.

U.S. Department of Agriculture

The bill would provide $23.5 billion in topline discretionary funding for USDA, a $451 million increase from the FY 2019 enacted level.

The National Institute of Food and Agriculture (NIFA) received $1.527 billion, a 3.8 percent increase from FY 2019. This includes $425 million, a $10 million increase for the Agriculture and Food Research Initiative (AFRI). The final package does not include the House statutory language that would prohibit the relocation of NIFA and the Economic Research Service (ERS) outside of Washington, DC. Capacity funds would continue at the flat FY 2019 level. The new Farm Bill program Genome to Phenome would receive $1 million, there is also $5 million allocated for the Urban Agriculture Office, $5 million for Capacity Building for Non-Land-Grant Colleges of Agriculture, and $5 million for research equipment grants.

Regarding the Specialty Crop Research Initiative (SCRI), the bill would extend the cost-match waiver that was included in the continuing resolution through the end of the fiscal year, but not beyond this period and will need to be addressed again in the FY 2021 appropriations cycle.

Regarding the Agricultural Research Service (ARS), the bill rejects the President's request for termination, redirection, or closure of research programs and facilities. The final package provides $1.414 billion to the ARS Salaries and Expenses, a $111.1 million or 8.5 percent increase. Funding increases are directed to several research topics, including human nutrition and the National Bio and Agro-Defense Facility. Extramural research would be funded at no less than the FY 2019 level.

Department of Agriculture
(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Minibus	Minibus vs. Enacted
ARS, Total	**1,684,466**	**1,394,516**	**1,729,766**	**1,414,366**	**111,100 (8.5%)**
National Institute of Food and Agriculture (NIFA)	**1,471,341**	**1,594,093**	**1,484,371**	**1,527,421**	**56,080 (3.8%)**
AFRI	415,000	445,000	425,000	425,000	10,000 (2.4%)
Hatch Act	259,000	265,000	259,000	259,000	--
Smith Lever Act 3(b) and 3(c)	300,000	315,000	300,000	300,000	--

McIntire-Stennis	36,000	38,000	36,000	36,000	--
Hispanic Serving Institutions Education Grants Program	9,219	20,000	9,219	11,200	1,981 (21.5%)
Food Safety and Inspection Service (FSIS)	**1,049,344**	**1,054,344**	**1,054,344**	**1,054,344**	5,000 (0.5%)
Animal and Plant Health Inspection Service (APHIS)	**1,011,136**	**981,893**	**1,034,011**	**1,042,711**	**31,575 (3.1%)**
Food and Drug Administration*	**5,584,965**	**5,772,442**	**5,761,442**	**5,772,442**	**187,477 (3.36%)**
FDA Budget Authority**	3,068,678	3,253,939	3,148,678	3,159,678	91,000 (2.97%)

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201865%20-%20Division%20B%20-%20AG%20SOM%20FY20.pdf.

U.S. Geological Survey

The FY 2020 minibus would provide $1.271 billion for the U.S. Geological Survey (USGS), which is $110 million or 9.5 percent above the FY 2019 enacted level. The topline USGS funding level in the minibus is almost $34 million higher than the proposed House FY 2020 appropriations bill, and $61 million above the Senate version. Congress rejected President Trump's proposed budget that would have cut the agency to $983 million for FY 2020. The minibus provides increases to all mission areas except for Science Support, which would be cut by 5.8 percent.

The minibus rejects the Administration's proposed agency restructure and realignment, which would have consolidated the Land Resources and Environmental Health mission areas and realigned the structure of the Ecosystems, Water Resources, and Core Science Systems Mission areas. The House had rejected these changes and the Senate had accepted the restructure. The minibus explanatory statement notes that the Committee would consider future reorganization proposals if provided additional details.

The minibus would fund the Natural Hazards account at $170 million, a $4.6 million or 2.8 percent increase compared to FY 2019. Specifically, the bill would provide $19 million for continued development of the ShakeAlert Earthquake Early Warning System, an increase of approximately $3 million over the last fiscal year. Additionally, $6.7 million would be provided for capital costs for the warning system's buildout, which is a $1.7 million increase from FY 2019. The Advanced National Seismic System (ANSS) would receive $2 million for deferred maintenance and modernization and $1.8 million would be provided for infrastructure for regional seismic networks. The minibus would include $3 million to operate and maintain the USArray stations that were recently acquired.

The minibus would provide $166 million for Land Resources, a 5 percent increase from FY 2019. The minibus would reject the President's request to move the Climate Science Adaptation Centers from Land Resources into the Ecosystems mission area. Congress also ignored the President's request to cut funding by 49 percent and condense the eight existing centers into three hubs. Instead, the minibus would increase funding by 51.3 percent to a total of $38.3 million. Specifically, this increase would support the development of a Midwest Climate Adaptation Science Center, which was initially requested in the FY 2017 budget request.

The bill ignores the Administration's continued proposed elimination of the Water Resources Research Institutes and funds this program at $10 million, a 53.8 percent increase from FY 2019. Specifically, $1 million of this money will be used for research on aquatic invasive species in the upper Mississippi river. In total, the Water Resources mission area would receive $234 million for FY 2020, or an increase of $7.8 million.

Within the Ecosystems mission area, the Cooperative Research Units would receive funding of $24 million, an increase of $5.6 million over the FY 2019 enacted level. A portion of this funding is continued

to support moose research. The minibus also provides $23.3 million for invasive species, of which $1.7 million is designated for Chronic Wasting Disease.

Energy, Minerals, and Environmental Health would receive $114 million, a 1.6 percent increase over the FY 2019 enacted level. The critical minerals Earth Mapping Resources Initiative (Earth MRI) within this mission area would receive $59.9 million, which is the same level as the FY 2020 budget request from the Trump Administration.

In Core Science Systems, the National Cooperative Geological Mapping Program would be funded at $34.4 million. Included in this funding is Phase Three of the National Geologic Database. In addition, the 3D Elevation Program would receive $5 million to assist in achieving 100 percent high-resolution elevation data coverage of the Great Lakes region.

U.S. Geological Survey

(In thousands of $)

	FY 2019 Enacted	FY 2020 House	FY 2020 Senate	FY 2020 Minibus	Minibus vs. FY 19 Enacted
USGS, total	**1,160,596**	**1,236,398**	**1,209,601**	**1,270,957**	**110,361 (9.5%)**
Natural Hazards	**166,258**	**171,823**	**170,838**	**170,870**	**4,612 (2.8%)**
Earthquake Hazards	83,403	85,375	87,903	84,903	1,500 (1.8%)
Global Seismographic Network	6,653	7,161	6,653	7,153	500 (7.5%)
Ecosystems	**156,882**	**168,023**	**225,015**	**170,544**	**13,662 (8.7%)**
Land Resources	**158,299**	**171,570**	**0**	**166,274**	**7,975 (5.0%)**
National and Regional Climate Adaptation Science Centers	25,335	38,377	25,335	38,335	**13,000 (51.3%)**
Energy, Minerals, and Environmental Health	**111,736**	**111,113**	**90,041**	**113,536**	**1,800 (1.6%)**
Water Resources	**226,308**	**239,917**	**228,808**	**234,120**	**7,812 (3.5%)**
Water Resources Research Act	6,500	10,000	**6,500**	**10,000**	**3,500 (53.8%)**
Core Science Systems	**117,902**	**143,224**	**221,688**	**137,902**	**20,000 (17%)**
Science Support	**102,828**	**97,243**	**96,828**	**96,828**	**-6,000 (5.8%)**
Facilities	**120,383**	**133,485**	**176,383**	**180,883**	**60,500 (50.3%)**

Source: The explanatory statement is available at https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201865%20-%20Division%20D%20-%20Interior%20SOM%20FY20.pdf.