The bill includes a provision that requires NASA to submit its agency spending plan at the activity level and subjects both the spending plan and specified changes to that plan to reprogramming procedures under section 505 of this Act.

**NATIONAL SCIENCE FOUNDATION**

The Committee recommends $8,636,141,000 for the National Science Foundation (NSF). This significant investment, which is $561,141,000 above fiscal year 2019 and $1,570,141,000 above the request shows the Committee’s support for science, the academic community, and the next generation of scientists, mathematicians, astronomers, and engineers across the country. The Committee underscores the importance of basic research that both improves the lives of Americans and expands our understanding of the Earth, the depths of our oceans, our Solar System, the Universe, and oceans on other planets.

The Committee supports infrastructure investments that expand our understanding of the universe and inspire students to pursue careers in the sciences. The Committee recognizes that current and future large scientific facilities represent an enormous investment of Federal resources that must be administered wisely. The Committee supports basic research in fundamental science areas and expects that as NSF uses the 10 Big Ideas as a focusing tool, the funding for the fundamental scientific disciplines will be maintained. Within amounts provided, NSF shall allocate no less than fiscal year 2019 levels to support its existing scientific research, research laboratories, observational networks, and other research infrastructure assets, including the astronomy assets, the current academic research fleet, Federally funded research and development centers, and the national high-performance computing centers, so that they may provide the support needed for cutting edge research.

**Innovation Corps.**—The Committee recognizes the value of translating basic research for public benefit and the recommendation includes an increase of $5,000,000 above the fiscal year 2019 level for the Innovation Corps program to build on the initial successes of its highly innovative public-private partnership model and expand the program to additional academic institutions.

**Computer Science for All.**—The Committee strongly supports NSF’s Computer Science for All efforts and the recommendation including an increase of not less $10,000,000 above the fiscal year 2019 level for such activities. The Computer and Information Science and Engineering directorate is expected to collaborate with the Division of Research on Learning in Formal and Informal Settings to build on ongoing efforts to improve rigorous computer science education.

**RESEARCH AND RELATED ACTIVITIES**

The Committee recommends $7,106,301,000 for Research and Related Activities, which is $586,301,000 above fiscal year 2019 and $1,443,341,000 above the request. The Committee believes that strategic investments in the physical sciences are vitally important for the United States to remain the global leader in innovation, productivity, economic growth, and high-paying jobs for the future.
Artificial intelligence.—The Committee believes it is important to maintain leadership in artificial intelligence and commends NSF for its significant investments in this area. The Committee recognizes the potential of artificial intelligence to transform the economy, foster economic growth, support national security, and enhance wellbeing. The Committee urges NSF to invest in the ethical and safe development of artificial intelligence. Within 90 days of the enactment of this Act, NSF shall provide the Committee with a report on its efforts to prioritize investments in artificial intelligence research.

Lead detection, testing, and monitoring.—The Committee encourages NSF to support funding for next-generation approaches to low-cost, high quality lead testing detection and monitoring tools.

Advanced manufacturing.—The Committee recognizes the Advanced Manufacturing program and its role in assisting domestic manufacturers to reshape our nation's strategic industries. The program should continue to prioritize funding multidisciplinary research that alters and transforms manufacturing capabilities, methods, and practices, while providing the framework for domestic manufacturing to remain competitive, and helping struggling industries reinvent themselves.

Steel research.—The Committee encourages NSF to use its Industrial Innovation and Partnerships program to continue research into the U.S. steel industry.

Palmer Station.—The National Science Foundation currently conducts year-round operations with marine support at Palmer Station in the Antarctic, consistent with stated U.S. policy. Year-round operations have helped advance important scientific research while maintaining an active U.S. presence on the Antarctic Peninsula. The Committee supports year-round operations at Palmer and has provided funding that will enable the NSF to do so.

Established Program to Stimulate Competitive Research (EPSCoR).—Within amounts provided, $177,700,000 is for EPSCoR.

Marine research.—The recommendation maintains current funding levels for existing marine research facilities and directs NSF to accept new proposals from the academic research community for research supported by these facilities. The Committee further directs NSF to develop a plan, in coordination with the academic research community, to ensure the science community’s continued access to capabilities comparable to those currently provided by existing NSF marine research facilities.

Existing astronomy assets.—The Committee underscores that a critical component of the nation’s scientific enterprise is the infrastructure that supports researchers in discovery science, including planetary protection. Investments to advance the frontiers of research and education in science and engineering are critical to the nation’s innovation enterprise. U.S.-based astronomy facilities continue to make groundbreaking discoveries and maintain excellent world-class scientific research. The Committee expects NSF to sustain support for the programs and scientific facilities funded by the Astronomical Sciences Division at no less than the fiscal year 2019 levels to maintain full scientific and educational operations. The Committee is aware that NSF is working with Federal, academic, and private sector partners to develop plans to share future oper-
ations and maintenance costs of NSF astronomical infrastructure. NSF shall keep the Committee informed of these activities. Further, any proposal by NSF to divest the Foundation of these facilities shall be proposed as part of any future NSF budget request and is subject to NSF administrative provisions included in the accompanying bill.

Quantum initiative.—The Committee supports NSF’s research program in quantum information science and technology in support of the authorized activities included in Section 401 and Section 402 of the National Quantum Initiative (Public Law 115–368). This emerging field of science promises to yield revolutionary new approaches to computing, sensing and communication. NSF should remain committed to developing and supporting systems that facilitate tremendous leaps in computational simulation, including artificial intelligence, storage, quantum computing, and data analyses that enable a broad range of scientific research. Leading edge high-performance computing infrastructure is vital for continued U.S. world leadership and international scientific competitiveness, particularly given computational investments and technical achievements in high-performance computing by other nations. The recommendation provides no less than the fiscal year 2019 level for these activities.

Geospatial data.—The Committee commends NSF for its commitment to provide high-performance computing capacity to advance global topographic mapping. The Foundation’s support to produce geospatial products is contributing significantly to the advancement of Earth science and adding critical benefits to Federal agencies needing to access unclassified geospatial data.

International Ocean Discovery Program (IODP).—The recommendation provides $48,000,000 for the IODP. The Committee notes that in addition to this funding, the IODP program derives funding from international and/or industry partners to maximize operating time on the Joint Oceanographic Institutions for Deep Earth Sampling (JOIDES) Resolution ocean research vessel. The Committee supports the goal of operating five research missions a year on the JOIDES Resolution.

High Energy Physics (HEP).—The Committee continues to provide funding for the HEP program to support scientific research at university and national laboratories throughout the nation and advance Particle Physics Project Prioritization Panel projects, operations of existing large facilities, and completion of small and medium-sized projects. The exploration of the nature of neutrinos, the Higgs Boson, dark matter, dark energy, and yet-to-be-discovered forces that govern the origin and evolution of our universe will greatly enhance the nation’s scientific knowledge.

Harmful Algal Blooms (HABs).—The Committee supports the work of the Oceans and Human Health program to better understand the public health risks of environmental exposures and encourages NSF to continue its research into the human health impacts of HABs in the Great Lakes Basin and marine coastal regions. HABs jeopardize the integrity of drinking water resources in these regions.

Social, Behavioral, and Economic (SBE) Sciences.—The Committee supports SBE and recognizes the fundamental importance of its research for advancing our understanding of human behavior
and its application to a wide range of human systems, including public health, national defense and security, education and learning, and the integration of human and machine. SBE funds over half of our nation's university-based social and behavioral science research but remains the smallest of NSF directorates. The Committee believes this research provides an evidence-based understanding of the human condition, resulting in more-informed policymaking and better-informed spending on a full range of national issues. The recommendation includes no less than the fiscal year 2019 level for SBE.

Low-energy nuclear reactions (LENR).—The Committee encourages the NSF to evaluate the various theories, experiments, and scientific literature surrounding the field of LENR. It shall also provide a set of recommendations as to whether future Federal investment into LENR research would be prudent, and if so, a plan for how that investment would be best utilized.

Scientific collaboration.—NSF is encouraged to improve the understanding of scientific collaboration and how scientists work together.

Plant Genome Research Program (PGRP).—The Committee finds that NSF’s PGRP advances research into crop-based genomics and phenomics that address challenging economic and societal questions and directs NSF to continue to fund the PGRP program and to focus the program on research related to crops of economic importance.

Algorithmic bias research.—The Committee encourages NSF to partner with non-government organizations, academic institutions, and other government agencies including the National Institute of Standards and Technology, to fund research on algorithmic bias in artificial intelligence, machine learning and intelligent systems and its impacts on decisions related to employment, housing, and creditworthiness and to develop methods, tools, and programs for resolving bias within an algorithm. The Committee recognizes that the science sponsored through such collaboration is important for studying the impact that algorithms have on protected classes and for developing an understanding of what kinds of discrimination and bias protected classes face in these particular activities.

MAJOR RESEARCH EQUIPMENT AND FACILITIES CONSTRUCTION

The Committee recommends $223,230,000 for Major Research Equipment and Facilities Construction, as requested. The recommendation includes $1,000,000, as requested, for enhanced oversight. NSF shall continue to provide quarterly briefings to the Committee on the activities funded in this account.

Antarctica Infrastructure Modernization for Science (AIMS).—The recommendation includes $97,890,000 for AIMS to replace major facilities at McMurdo Station, Antarctica, as requested. The Committee supports the AIMS program and the recommendations for increased efficiencies included in the U.S. Antarctic Program Blue Ribbon Panel report, More and Better Science in Antarctica through Increased Logistical Effectiveness.

Large Synoptic Survey Telescope (LSST).—The recommendation includes $46,340,000 for LSST, as requested. LSST, which was ranked as the top large ground-based astronomy project by the National Research Council 2010 Decadal Survey, will produce the
deepest, widest-field sky image ever and issue alerts for moving and transient objects within 60 seconds of discovery.

High Luminosity-Large Hadron Collider Upgrade (HL–LHC).—
The recommendation includes $33,000,000 for upgrades to the detectors at the Large Hadron Collider, as requested.

Mid-scale research infrastructure.—The recommendation includes $33,000,000 in the MREFC account for mid-scale research infrastructure, as requested. The Committee commends NSF for its planned investments in mid-scale research infrastructure, including the provision of larger mid-scale instrumentation and the facility operation transition program to better enable support for facilities over their complete lifespan.

Infrastructure planning.—The Committee is concerned about the NSF’s planning for the construction and development of the next-generation of competitive large-scale facilities to support NSF-funded science disciplines, including ground-based telescopes. Failure to plan for the next generation of facilities handicaps the U.S. science community and risks our nation’s global leadership in science. The Committee encourages NSF to develop a comprehensive and prioritized list of large-scale facilities requested by NSF-supported science disciplines.

EDUCATION AND HUMAN RESOURCES

The Committee recommends $950,000,000 for Education and Human Resources, which is $40,000,000 above fiscal year 2019 and $126,530,000 above the request.

Broadening participation programs.—To broaden the participation of underrepresented populations in STEM education programs and, ultimately, the STEM workforce, the recommendation provides no less than $48,500,000 for the Louis Stokes Alliance for Minority Participation; no less than $67,000,000 for the Robert Noyce Teacher Scholarship Program; and no less than $15,000,000 for the Tribal Colleges and Universities Program.

Hispanic Serving Institutions (HSIs).—Hispanic Serving Institutions and the HSI grant program play an important role in increasing the recruitment, retention, and graduation rates of Hispanic students pursuing STEM degrees, particularly at institutions of higher education that typically do not receive high levels of NSF funding. The recommendation includes no less than $45,000,000 for the HSI program.

Historically Black Colleges and Universities Undergraduate Program (HBCU–UP).—The recommendation provides no less than $38,000,000 for the HBCU–UP. Within amounts provided, the recommendation includes an increase of $3,000,000 for the Historically Black Colleges and Universities Excellence in Research program. This initiative provides strategic programs and opportunities for Historically Black Colleges and Universities (HBCUs) that stimulate sustainable improvement in their research and development capacity and competitiveness. The Committee encourages NSF to continue to use research infrastructure improvement grants, cofunding programs, and other innovative mechanisms to boost HBCU participation and capacity throughout NSF research programs.

Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF IN-
The Committee supports the NSF INCLUDES program, which is a comprehensive national initiative designed to enhance U.S. leadership in science, technology, engineering and mathematics discoveries and innovations focused on NSF’s commitment to diversity, inclusion, and broadening participation in these fields. The recommendation includes no less than the fiscal year 2019 level for NSF INCLUDES.

Asian American and Native American Pacific Islander-Serving Institutions (AANAPISIs).—The Committee notes that among the minority-serving institutions with whom NSF provides grant opportunities, AANAPISIs are not designated. The Committee urges NSF to increase grant funding opportunities for AANAPISIs, and to reach out to these institutions to raise awareness regarding these grants.

Early Childhood STEM Education.—The Committee urges NSF, in awarding grants under its Discovery Research PreK–12 program, to consider age distribution in order to more equitably allocate funding for research studies with a focus on early childhood.

Cybersecurity research.—The Committee encourages NSF to form partnerships with Hispanic Serving Institutions and Historically Black Colleges and Universities with respect to cybersecurity research.

CyberCorps.—The Committee provides no less than the fiscal year 2019 level for CyberCorps: Scholarships for Service program and urges NSF to use the CyberCorps Faculty Fellows pilot program to address the critical shortage of cybersecurity faculty in U.S. institutions of higher education. In addition, the Committee urges NSF to continue work with qualified community colleges including through providing scholarships and apprenticeship opportunities.

Bioprocessing workforce development.—The Committee is aware of the shortage in trained bioprocessing engineers, scientists and technicians in the workforce and supports expanded capacity and partnerships at NSF to address these shortfalls. The lack of proper bioprocessing training facilities in the United States, particularly those that have integrated hands-on academic education, industry training, and workforce development, is crippling this vital source of ingenuity in the labor force. The Committee strongly urges NSF to make investments in support of transdisciplinary workforce development, training and education programs in the bioprocessing field. When providing resources for these initiatives, NSF is encouraged to look to institutions of higher education that have successfully demonstrated national and international collaborations in this arena.

**AGENCY OPERATIONS AND AWARD MANAGEMENT**

The Committee recommends $336,890,000 for Agency Operations and Award Management, which is $7,350,000 above fiscal year 2019 and the same as the request.

**OFFICE OF THE NATIONAL SCIENCE BOARD**

The Committee recommends $4,370,000 for the National Science Board, which is the same as fiscal year 2019 and $270,000 above the request.
OFFICE OF INSPECTOR GENERAL

The Committee recommends $15,350,000 for the Office of Inspector General, which is the same as fiscal year 2019 and the request.

ADMINISTRATIVE PROVISIONS
(INCLUDING TRANSFER OF FUNDS)

The bill includes a provision that establishes thresholds for the transfer of funds.

The bill includes a provision regarding notification prior to acquisition or disposal of certain assets.

TITLE IV
RELATED AGENCIES

COMMISSION ON CIVIL RIGHTS

SALARIES AND EXPENSES

The Committee recommends $10,500,000 for the Commission on Civil Rights, which is $435,000 above fiscal year 2019 and $1,300,000 above the request.

Field Hearings.—The Committee encourages the Commission to conduct field hearings on priority civil rights topics such as fair housing and the Census.

Donations.—The Committee includes bill language granting the Commission the authority to accept donations to carry out its mission, similar to authority provided to 45 other Federal agencies. The Commission shall provide to the Committee quarterly updates on all gifts and donations, as well as the terms of, and specific activities funded by, the gift or donation. Additionally, anticipated funding from gifts or donations shall be included in the Commission’s annual spend plan.

EQUAL EMPLOYMENT OPPORTUNITY COMMISSION

SALARIES AND EXPENSES

The Committee recommends $399,500,000 for the Equal Employment Opportunity Commission (EEOC), which is $20,000,000 above fiscal year 2019 and $43,700,000 above the request. The recommendation continues the increase provided in fiscal year 2018 to address sexual harassment claims. The recommended additional funding is provided to increase front-line and investigative staff to reduce wait times for intake appointments, modernize information technology, and to collect information required by the revised EEO–1 form.

Summary pay data.—The Committee supports EEOC’s September 2016 revisions to the EEO–1 form. This strengthened pay data collection will shine a light on pay practices, reveal trends, and support employers in proactively evaluating their systems and closing pay gaps.

Charge Quotas.—The Committee is concerned about EEOC’s handling of A, B, and C charges and directs EEOC to submit a report to the Committee, not later than 120 days after the date of enactment of this Act, documenting any formal or informal quotas EEOC