

Early Career Faculty Presentation

Lewis-Burke Associates, LLC
April 30, 2020

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Today's Webinar

- Introduction to Lewis-Burke
- Overview of Federal Landscape including COVID-19 Impact
- Engaging with Federal Agencies
- Individual Agency Opportunities and Engagement:
 - National Science Foundation
 - Department of Energy
 - National Institutes of Health
 - Department of Defense
 - Other Agency Opportunities
- Q&A

About Lewis-Burke

- Twenty-eight policy experts with range of expertise/backgrounds allow multi-layered issue teams with deep expertise in agencies and scientific/education areas
- Develop and implement federal strategies to pursue, shape, and create new sources of funding to increase and diversify research portfolio
- Partnership with OU began in December 2019 - provide direct support to through VPR's office
- Able to engage on multiple levels:
 - Individual faculty (including early career faculty)
 - Teams of faculty
 - Associate Deans for Research
 - Deans and Center Directors
 - University leadership and campus-wide and system-wide priorities/activities

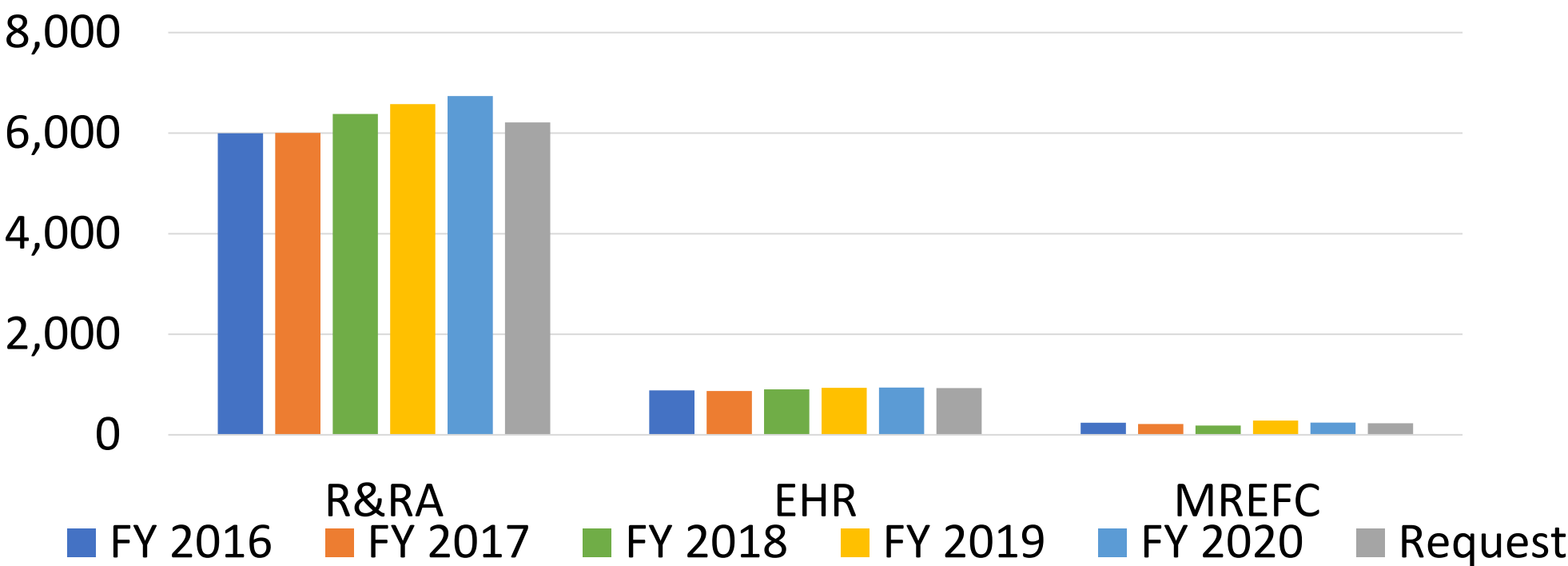
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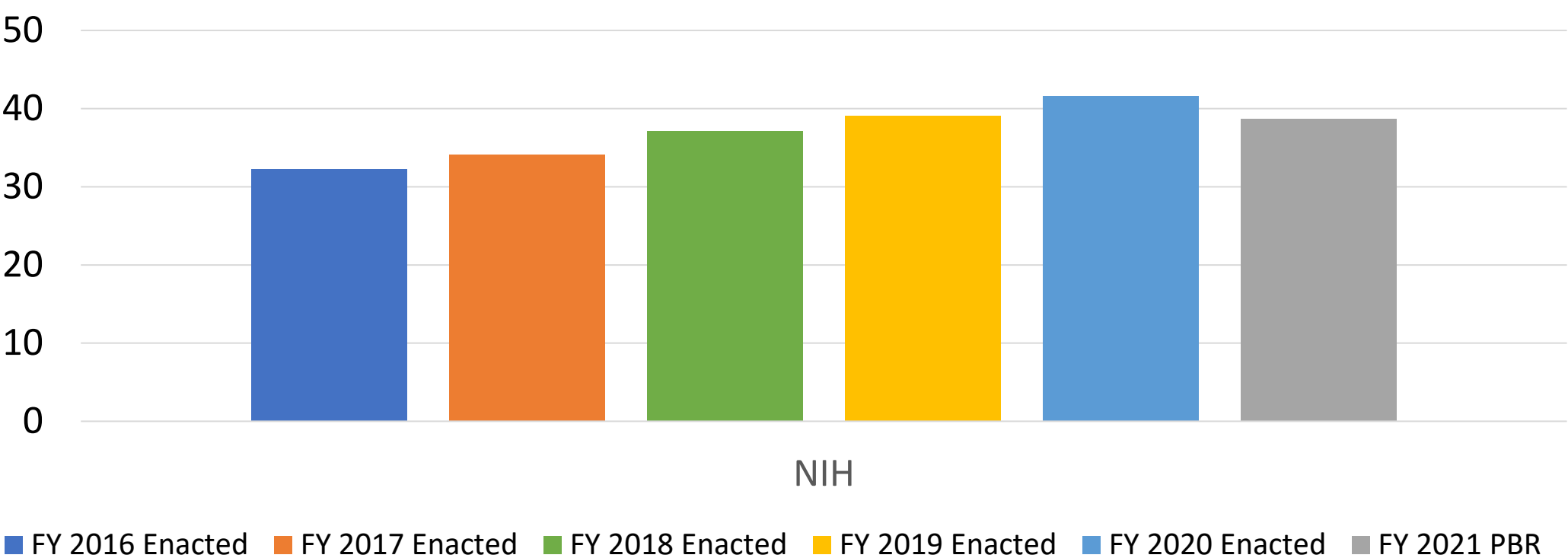
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Federal Funding: Status and Outlook

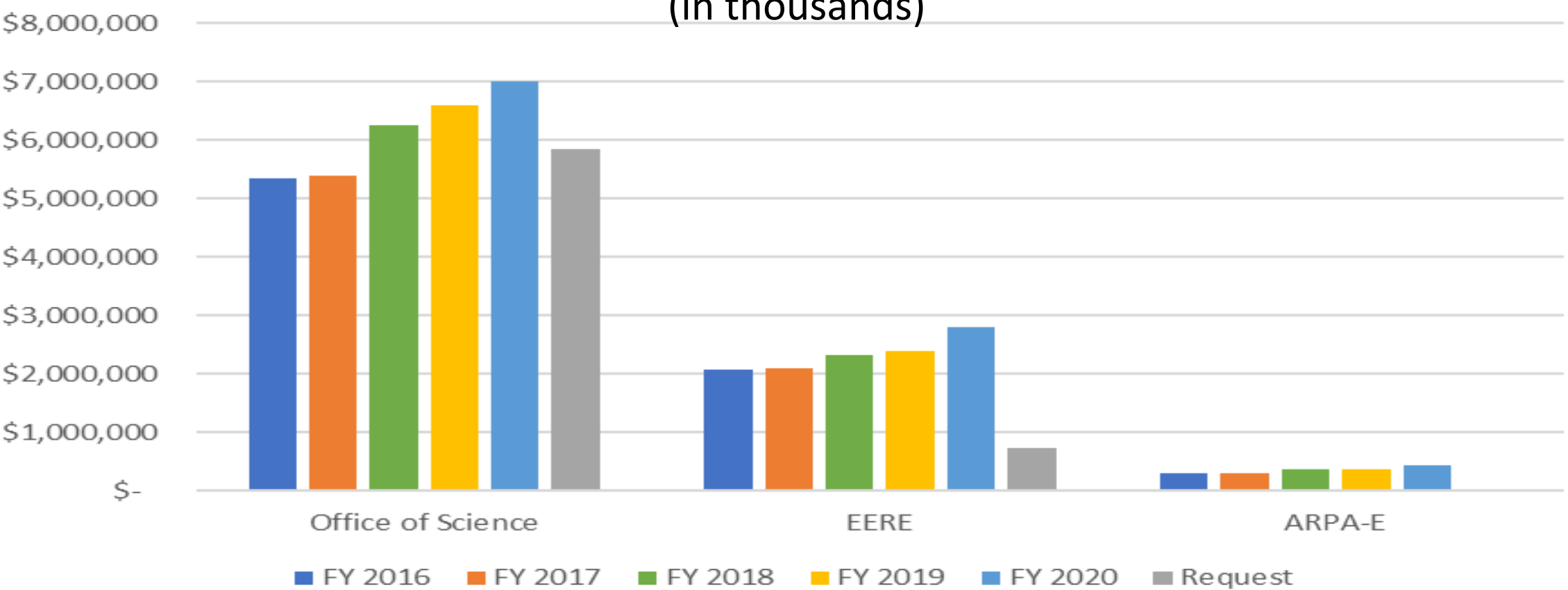
NSF Major Accounts
(In Millions)



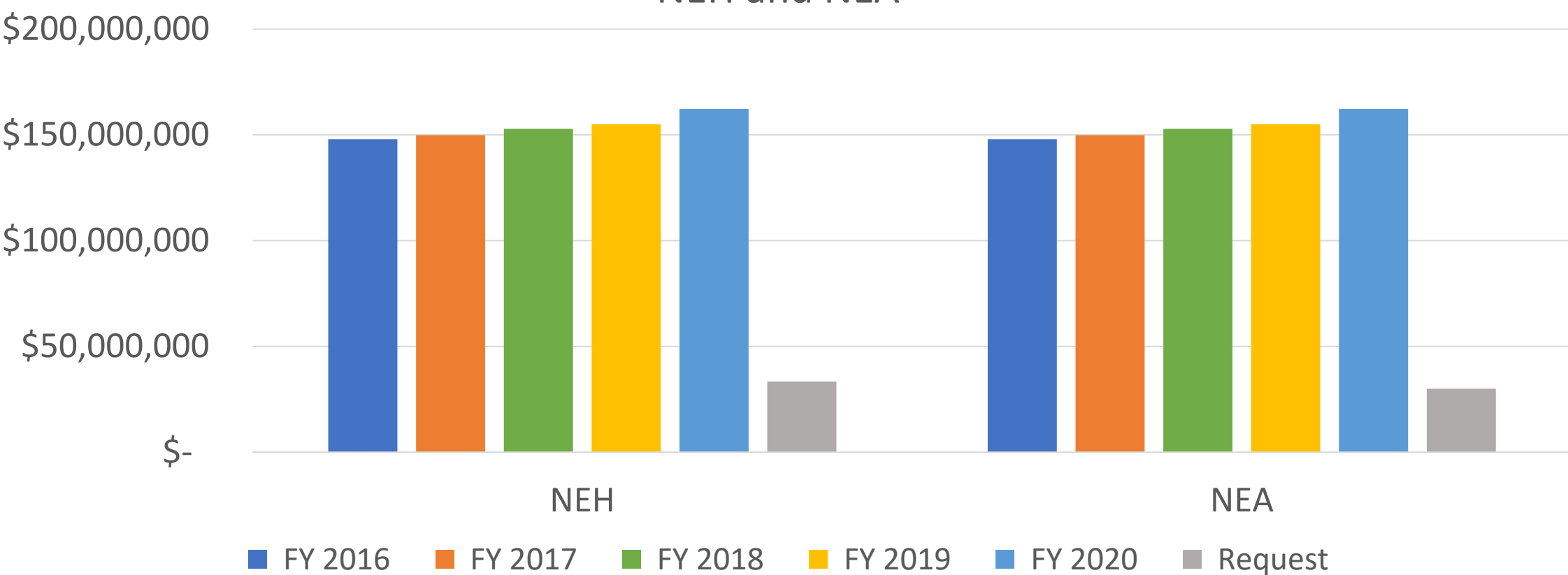
NIH
(In Billions)



DOE
(in thousands)



NEH and NEA



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Federal Funding: Status and Outlook

- **FY 2020 omnibus** spending bill provided significant boosts for many research funding agencies:
 - National Institutes of Health: \$41.7 billion (6.7% increase over FY 2019)
 - Department of Energy, Office of Science: \$7 billion (6.3% increase over FY 2019)
 - National Science Foundation: \$8.3 billion (2.5% increase over FY 2019)
 - Department of Defense S&T: \$16.1 billion (0.7% increase over FY 2019)
 - National Aeronautics and Space Administration science program: \$7.1 billion (3.4% increase over FY 2019)
 - U.S. Department of Agriculture's Agriculture and Food Research Initiative: \$425 million (2.4% increase over FY 2019)
 - National Endowments for the Humanities: \$162 million (4.7% increase over FY 2019)
- **FY 2021:**
 - Congress has consistently rejected the Administration's most draconian spending proposals
 - Funding levels will be similar to FY 2020 based on two-year budget deal which caps discretionary spending
 - Process will be slowed in a Presidential election year; expect Continuing Resolutions (CRs)

General Outlook: It's COVID-19 All the Way Down

COVID, COVID, COVID

- Congress and federal agencies practicing social distancing into May – longer term guidance unclear
- Congress on recess until May 4. Staff continue to work remotely, major attention focused on COVID-19 relief
- Research community seeing enormous financial impacts
 - Push to include research relief in future response packages
 - Questions about student learning, training experiences, and job market for graduates
 - Immigration and international student challenges due to travel restrictions and Administration policy changes

And yet, life goes on

- Administration focused on COVID-19 response but continues JCORE efforts related to research reproducibility, inclusion, open access, and security
- Federal agencies mostly operating as usual through telework
- FY 2021 appropriations efforts continue, impact of pandemic not yet clear on timeline
- Elections could lead to major change in personnel and priorities next year
 - Unclear as of now how COVID-19 will impact campaigning and voting
 - Potential for Administration and Congressional shifts – House, Senate, and Presidency all in play

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COVID-19 – Overview

- Federal agencies continue to function during COVID-19 pandemic – program officers and others are teleworking
 - Note that PMs may be feeling overwhelmed and take longer to respond*
 - Agencies welcome input from universities on COVID-related challenges*
- The White House Office of Management and Budget has instructed agencies to be as flexible as possible with grantees, including extending deadlines, providing no cost extensions, covering canceled travel costs, paying salaries, etc.
- Funding opportunities related to COVID-19 have so far focused on the virus and public health issues – vaccine development, pandemic tracking, testing and treatments
- Congress has passed four stimulus bills – focus on near term pandemic needs and urgent economic assistance
- Discussions underway for future packages to address remaining needs, jumpstart economy, better prepare for future pandemics, etc.

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COVID-19 – Federal Funding (1)

- **NIH** – \$3.6 billion in new funding for COVID-19 related research
 - Individual Institutes issuing Notices of Special Interest (NOSI) outlining COVID-19 related research priorities aligned with the IC's programmatic priorities (e.g. NHLBI—cardiovascular and respiratory effects)
 - NOSIs are largely using the *Administrative Supplement* and *Urgent or Emergency Competitive Revision* grant mechanisms which require applicants to have an existing NIH grant (typically R01-equivalent)
 - Anticipate new COVID-19 related RFAs
- **HHS** – received \$175 billion to provide COVID-19 relief funding for hospitals and providers through the Public Health and Social Services Emergency Fund and \$250 million through ASPR's Hospital Preparedness Program to support COVID-19 planning and coordination activities
- **BARDA** – received \$4.5 billion for manufacturing and purchase of vaccines, diagnostics, and therapeutics
- **CDC** – received \$4.5 billion in 3rd stimulus bill to support public health preparedness and response activities and \$1 billion in the 4th stimulus to support testing improvements

COVID-19 – Federal Funding (2)

- **NSF** to receive additional \$75 million in 3rd stimulus bill; NSF has already released 2 DCLs:
 - RAPID awards to conduct non-medical, non-clinical-care research, including challenges through data and/or software infrastructure development activities
 - Request for SBIR/STTR Phase I Proposals Addressing COVID-19
- **DOE** – issued COVID-19 DCL and received \$95 million in the 3rd stimulus bill
 - Established National Virtual Biotechnology Laboratory as one stop shop for COVID-19 research and access to user facilities and computational resources (<https://science.osti.gov/nvbl>)
 - Current focus on testing kits, manufacturing of ventilators, modeling, and therapeutics.
- **DOD**
 - Funding opportunities focused on development and deployment of technology to assist COVID-19 response (PPE, N95 masks, ventilators)
 - DARPA encourages research ideas related to COVID-19 to respond to the Office-wide broad agency announcements (BAAs) for both the Defense Sciences Office (DSO) and Biological Technology Office (BTO)
- **NEH and NEA** – received \$75 million each to support grantees and organizations impacted by COVID-19

FY 2021 OSTP/OMB Priority Memo

Memo expands on FY 2020 priorities with an emphasis on a “Second Bold Era in S&T”; transformational leaps in science; focus on grand challenges and free from unnecessary admin burdens

R&D Priority Areas

– **Security of the American People**

- Military capabilities – Nuclear and Space
- **NEW** focus on critical minerals
- Critical infrastructure resilience & Semiconductors

– **Industries of the Future**

- AI, quantum science and computing
- Advanced communications and autonomy, including civil supersonic aircraft
- Advanced manufacturing

– **NEW Earth and Environmental Leadership**

- Nuclear energy R&D
- Oceans
- Earth systems predictability

– **Expanded Health and Bioeconomic Innovation**

- Biomedicine
- Veteran Health
- **NEW** Bioeconomy - Advancing biotechnology

– **Space Exploration & Commercialization**

Cross-Cutting Priorities

- Educating and Training a Workforce for the 21st Century Economy – build R&D capacity in HCU/MI
- **NEW** Research environments that reflect American values
- **NEW** Leveraging the power of data
- **NEW** High Risk High Reward research
- Expand multi-sector partnerships

FY 2021 Trump Administration Science and Technology Priorities

While the FY 2021 President’s budget request proposes significant cuts to science and technology programs across the federal government, increased investments are proposed for Industries of the Future, including:

quantum information science,
artificial intelligence and machine
learning,
strategic computing,
5G/advanced communications,
advanced manufacturing,
biotechnology,
next-generation microelectronics, and
space exploration.

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Advice to Engage with Federal Agencies

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Benefits of Engaging with Federal Agencies

- Learn more about their priorities
- Make connections with program managers who can give advice or determine funding success
- Receive first-hand information about research funding opportunities
 - Be on both “send” and “receive”
 - Find out what’s a good fit and what’s more of a reach
- Learn of non-funding ways to engage with the agency, such as serving on review panels or advisory councils

**Lewis-Burke can help identify specific meeting targets
based on research and objectives**

Connecting with Program Officers

- Find the right person – Lewis-Burke can help with this!
- Make initial contact via email to schedule a meeting/call and specify your research area
- Some POs might be overworked during COVID-19 and appreciate email communications more
- Review information on the program officer and their portfolio
 - think about their role and interests
- Provide tailored one-page description of your research
- Dress appropriately – business attire (even on video from your sofa!)
- Describe your research in a compelling way tailored to the program and agency
- Allow program officer to talk about their program and issues of concern
- Prepare questions, listen to answers, and take notes
- Offer to serve as a reviewer where appropriate
- Send thank you emails following meeting and highlight next steps or follow-up actions

Prior to the meeting

- Review the programs of the officials with whom you will be meeting and other relevant funding opportunities at their agencies
 - As you review program descriptions and past solicitations, note places of potential fit to your areas of interest so you can ask specific questions
- Prepare a one-page description of your research that may be left behind with the program staff or sent ahead
 - Including your contact information
 - Research descriptions should be consistent with areas of interest of the targeted agency program staff.
- Speak to more senior investigators who are funded by the federal agencies at which you will be meeting about their experiences and insight into the agencies and programs.
- Prepare questions to ask in the meetings

Example questions to ask in meetings

- What are the areas of interest of your program?
- What are the emerging areas of interest at the agency in your area?
- What are the mechanisms to seek funding at your agency and in your program? Are there targeted solicitations? Are you open to unsolicited proposals? Is there a recommended approach?
- How can I better prepare to submit proposals? At what point in the process is it appropriate to discuss specific project ideas with agency personnel/program staff? What kind of feedback can I expect?
- What are the success rates and what helps with resubmittals?
- Are there opportunities to serve as a reviewer or on advisory committees?
- Are there researchers whose work you would suggest I look into or that I collaborate with?
- Are there workshops or events you would suggest I participate in or help organize?
- Are there program officers at this or other agencies you recommend I contact?

Meeting follow-up

- Upon returning to campus, submit appropriate thank you emails to each of the meeting participants.
 - These emails should display an appreciation for the meeting, a quick reference to or summary of the issues discussed, any follow-up actions or conversations agreed to, and supplemental information if applicable.
- As you initiate contact with various agency officials, it is crucial that you maintain open lines of communication, especially if these contacts have displayed a willingness to accept unsolicited research proposals or provide unofficial advice.
- Federal program officials can be key advisors and sources of information throughout the challenging grant application process.



National Science Foundation (NSF)

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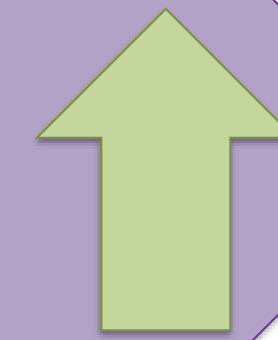
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National Science Foundation



Funding Outlook: In FY 2020, NSF was funded at \$8.3 billion, a 2.5% increase over FY 2019

FY 2021 Budget Request at \$7.74 billion (6.5% decrease)



Continued Focus on 10 Big Ideas for Future Investment

- Moving towards Center/Institute competitions
- NSF actively planning future Big Ideas, NSF 2026 winners recently announced

Emerging Priorities

- Continued interest in **partnerships** (Amazon and AI, Boeing and INCLUDES, NIFA and Smart Ag, Simons and Rules of Life)
- Growing focus on AI – new **AI institutes**
- Emerging interest in **engineering biology**/synthetic biology/biotechnology – multiple Advisory Committees reviewing possibilities
- Additional topics under *Industries of the Future* Advanced Wireless Research, Advanced Manufacturing

Future of Work	NSF 2026
Growing Convergence Research	NSF INCLUDES
Harnessing the Data Revolution	Quantum Leap
Mid-Scale Research Infrastructure	Understanding the Rules of Life
Navigating the New Arctic	Windows on the Universe

News Directions Ahead

- New NSF Director “Panch” nominated
- Lots of Directorates in flux or preparing major changes (Margaret Martonosi of Princeton University was selected as new CISE AD, SBE program changes announced fall 2019, ENG pursuing new visioning capability, BIO integration institutes, MPS AD search out)
- New programs in CoPe, Infrastructure, Trust, Advanced Manufacturing

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How NSF Supports its Researchers

- Investigator-driven bottom-up proposals to core discipline programs
- Dear Colleague Letters
- Focused Solicitations – often interdisciplinary, sometimes in collaboration with other agencies
- Workshops and Coordination Networks
- People – undergraduate, graduate student support, and post-doc support
- EAGER / RAPID awards – respond quickly to new and emerging opportunities
- Supplemental awards
- **CAREER Awards to early career faculty**
- Review process:
 - Concerned with health of disciplines and advancing fundamental science
 - Heavily focused on teaching, student mentoring, broadening participation, and broader impacts – every proposal must address broader impacts
 - Peer review is organized by program directors on an ad hoc basis – no standing panels
 - NSF program directors have more flexibility in determining program directions and funding decisions
 - proposal pressure and peer review are still main drivers

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NSF CAREER Program

- NSF-wide program to support early career faculty “who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization.”
- CAREER awards should form the foundation “for a lifetime of leadership in integrating education and research.”
- ENG CAREER awards are “expected to total a minimum of \$500,000 for the 5-year duration”
- Eligibility:
 - Hold a doctoral degree in a field supported by NSF;
 - Be engaged in research in an area of science, engineering, or education supported by NSF;
 - Hold at least a 50% tenure-track (or tenure-track-equivalent) position as an assistant professor (or equivalent title);
 - Be untenured; and
 - Have not previously received a CAREER award.
- **Deadline for proposals: July 27, 2020**

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Recommendations for CAREER

- Research proposed should be expansive enough to build a career on – very narrow research aims will not be competitive
- **Strategy and expectations vary by division; important to speak to program director before applying**
- Expectations related to education components also differ by division.
 - Some divisions like to see more focused education projects
 - Others want to see efforts that check a number of boxes, the education component has to be integrated with the research proposed and for some divisions (broadening participation, undergraduate research, etc.)
 - Department chair's letter of support is helpful to show how education efforts would be of value to the department and its students.
- Think carefully about when to apply as you only get a few chances.
 - First CAREER proposals often rejected because of presentation. Pay attention to details.
 - Don't submit at the very beginning of your career
 - Don't wait so long that you can't use your second and third tries.
 - The odds of obtaining a CAREER go up on the second try, so it's important not to get discouraged.

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Department of Defense (DOD)

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Department of Defense



Funding Outlook: \$16.1 billion for S&T across Services (basic, applied, and advanced tech)

- Basic Research increased 3% in FY 2020 (\$73 million across the Services)



- Newly established Space Force funded \$40 million
- Under Secretary of Defense for Research and Engineering (USD(R&E)) Mike Griffin's top technology focus areas:
 - 5G
 - Hypersonics
 - Directed energy
 - Command, control, and communications
 - Space offense and defense
 - Cybersecurity
 - Artificial intelligence/machine learning
 - Missile defense
 - Quantum science and computing
 - Microelectronics
 - Autonomy
 - Biotechnology
- Prioritization of later stage development and prototyping (Research, Development, Test, and Evaluation (RDT&E))
- Additional funding for Artificial Intelligence (AI), Quantum Information Science, Hypersonics

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Young Investigator Programs

Office of Naval Research - The Office of Naval Research's (ONR) Young Investigator Program (YIP) seeks applicants in their first or second full-time tenure-track position, and received his/her PhD or equivalent degree on or after January 1, 2012 . The program seeks "to attract outstanding faculty members of Institutions of Higher Education to the Department of Navy's research program, to support their research, and to encourage their teaching and research careers." ONR seeks YIP proposals related to the research areas of interest to each of the science and technology departments. ONR utilizes an annually released funding opportunity announcement (FOA) to solicit YIP proposals and funds projects up to \$170,000 per year for three years. ONR generally releases the FOA in the summer, with proposal deadlines in September.

Sources and Additional Information:

- Additional information on ONR's YIP is available at <https://www.onr.navy.mil/en/Education-Outreach/Sponsored-Research/YIP>
- The research areas of interest to ONR can be viewed through the multiple science and technology departments at <https://www.onr.navy.mil/en/Science-Technology/Departments>

Air Force Office of Scientific Research - The Air Force Office of Scientific Research (AFOSR) YIP supports scientists and engineers who received their Ph.D. on or after April 1, 2013. The program's objectives are "to foster creative basic research in science and engineering; enhance early career development of outstanding young investigators; and increase opportunities for the young investigator to recognize the Air Force mission and related challenges in science and engineering." AFOSR's YIP provides a maximum of \$450,000 over three years. AFOSR seeks YIP proposals that address research topics listed in its broad agency announcement (BAA) titled "Research Interests of the Air Force Office of Scientific Research." This year, AFOSR released its YIP solicitation in March with proposals due by **July 14**.

Sources and Additional Information:

- AFOSR's current FOA is available at www.grants.gov under solicitation number "FOA-AFRL-AFOSR-2020-0003"
- The Research Interests of the Air Force Office of Scientific Research BAA is available at www.grants.gov under solicitation number "FA9550-19-S-0003"

Young Investigator Programs

Army Research Office - The Army Research Office's (ARO) YIP supports tenure-track faculty who are less than five years from receiving their Ph.D. ARO solicits proposals for its YIP through a broad agency announcement (BAA) which is currently open through March 2022. Research areas of interest to ARO are listed in the BAA. Awards \$120,000 per year for three years.

Sources and Additional Information:

- Information on ARO's YIP is included in their long-standing BAA which is available at <https://www.arl.army.mil/wp-content/uploads/2020/04/ARO-BAA-Amendment-7-Final.pdf>

DARPA - DARPA annually aims to identify and engage elite researchers in junior faculty or equivalent positions at academic and non-profit research institutions and expose them to the Department of Defense's (DOD) mission, challenges, and needs.

- Limited to current tenure-track Assistant or Associate Professors and to tenured Assistant or Associate Professors within three years of their tenure appointment at a U.S. institution of higher education or equivalent at a U.S. non-profit science and technology research institutions
- Provides \$500,000 over two years
- Program announcement anticipated in the summer


Sources and Additional Information:

- Last year's Proposers Day Webcast for DARPA's YFA is available at <https://www.darpa.mil/news-events/young-faculty-awards-proposers-day-webcast>
- Additional information on DARPA's YFA is available at <https://www.darpa.mil/work-with-us/for-universities/young-faculty-award>

DEPSCOR

- *“Increase the number of university researchers and improve the capabilities of institutions of higher education in eligible jurisdictions to perform competitive basic research in science & engineering relevant to the DoD mission and reflect national security priorities”*
- Army, Navy, and Air Force Young Investigator programs were supplemented in FY 2019 and FY 2020 by additional funding provided by the Defense Established Program to Stimulate Competitive Research (DEPSCoR)
 - Two to three additional awards per military Service may be made to principal investigators in DEPSCoR-eligible states to augment awards in these programs
- A stand-alone competition encouraged proposals from researchers new to DOD in partnership with experienced DOD researchers
 - Six awards (2 per Service)
 - Next DEPSCoR funding opportunity being finalized now

ONR Young Investigator Program – Best Practices



Successful Candidates

- Contact ONR Program Officer before submitting proposal
 - PO comment: *“if only they would have contacted me first – this would have been a great proposal!!”*
- Try to understand PO’s portfolio / interests
- Review ONR website; become familiar with Navy terminology / where your technology fits in
- A record of publishing in peer reviewed journals
- Strong letter of support from University and/or Department (for Young Investigator Program)
- A complete curriculum vitae submitted with white paper and/or proposal package

Ways to Propose

White Paper Framed by *Heilmeier Questions*

- What are you trying to do? Articulate your objectives using absolutely no jargon. What is the problem? Why is it hard?
- How is it done today, and what are the limits of current practice?
- What's new in your approach and why do you think it will be successful?
- Who cares?
- If you're successful, what difference will it make? What impact will success have? How will it be measured?
- What are the risks and the payoffs?
- How much will it cost?
- How long will it take?
- What are the midterm and final "exams" to check for success? How will progress be measured?

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Quad Chart
– Format

BAA Number: (Number of the BAA Announcement)
Mission Area: (Title of Mission Area from BAA Package)
Requirement Number: (Only 1 Per Chart)(Document Identifier) (See para 3.1.5.1)
Proposal Title: (Brief/short Title to describe offeror's proposed effort)

Offeror Name
Date

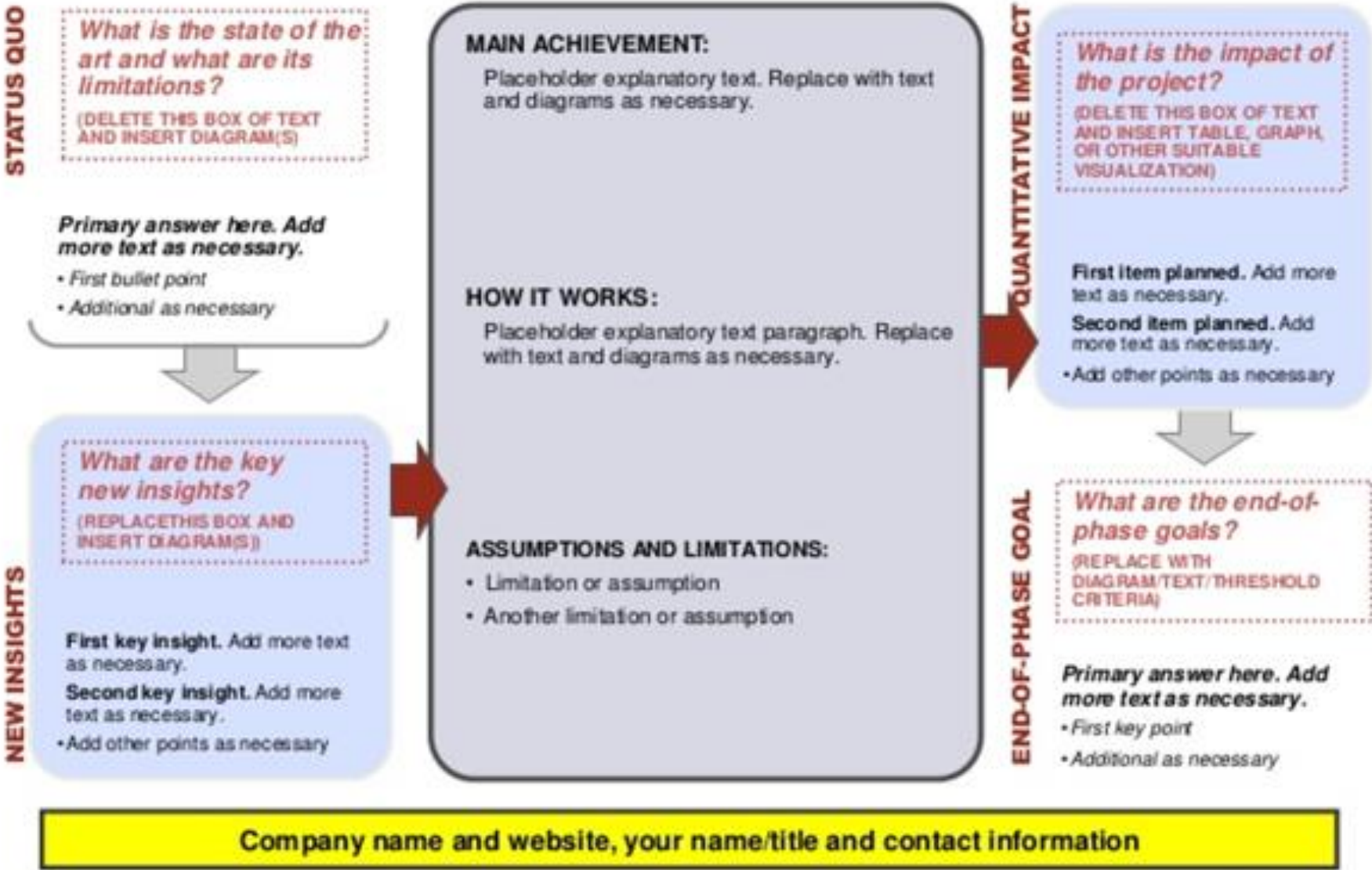
Photograph or artist's concept of the project end-item.
Ideally, this will convey the main idea of the final capability/use of the prototype.
It should further give an idea of the size and weight of the end item.

Operational Capability:
Describe how the system would provide new or enhanced operational capability to user agencies.
Describe system specifications to be met.
If known, list specific agencies that have expressed interest in this approach.

Proposed Technical Approach:
Specifically, how will the problem be approached.
Describe tasks to be performed.
Describe any actions done to date.
Describe any related on-going effort by the offeror.
Describe the technology involved and how it will be used to solve the problem.

Rough Order of Magnitude Cost and Schedule:
Provide any milestone decision points that will be required. Describe period of performance and total costs. If there are phases, provide funding per phase.
Deliverables:
Include all hardware and the following data deliverables: monthly status report, final report, test plans, test reports, specifications, computer program end items, user's manual, drawings, transition plan, etc.

Project/technology title



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Department of Energy (DOE)

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Department of Energy



Funding Outlook: In FY 2020, DOE was funded at \$38.6 billion, an 8% increase over FY 2019

FY 2021 Budget Request at \$35.4 billion (8% decrease)



Major cross-cutting priority research areas

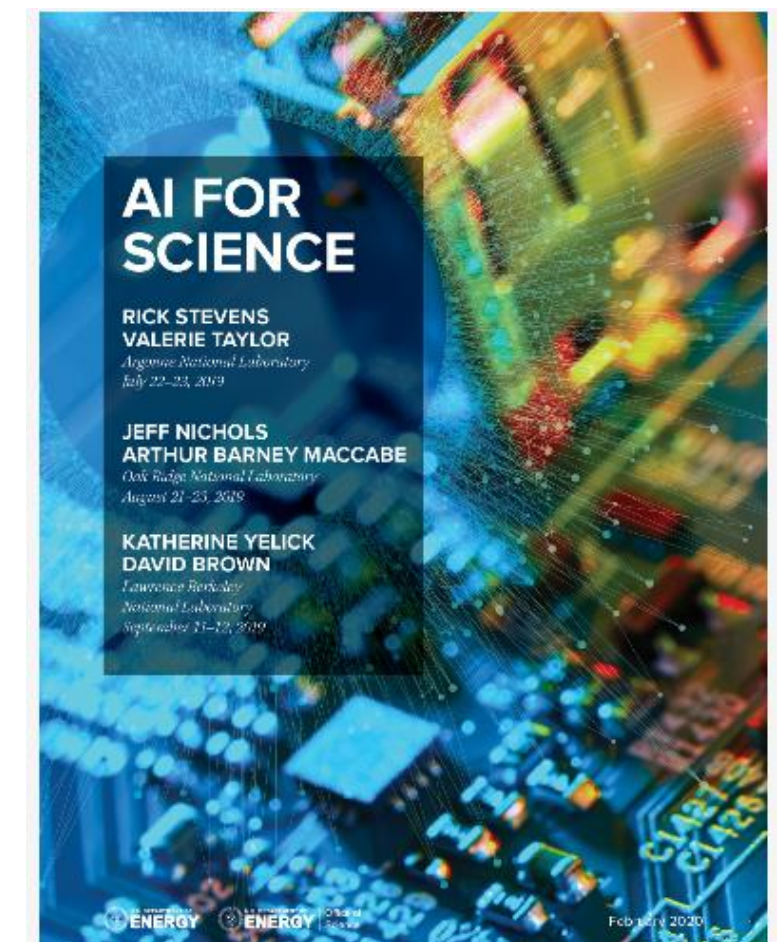
- Quantum Information Science (\$237 million)
- Artificial Intelligence/scientific machine learning (\$125 million)
- Next-generation microelectronics (\$45 million)
- Polymer upcycling to address the Plastics Innovation Challenge (\$14 million)
- Next-generation energy storage as part of the Advanced Energy Storage Initiative (\$367 million)
- Engineering biology to address the Next Generation Biology Initiative (\$9 million)
- Rare earths/separation science to address the Critical Minerals Initiative (\$56 million)

Office of Science

- Largest federal funder in the physical sciences
- 40% of annual research funding (~\$1 billion) for research universities
- Community-driven Basic Research Needs workshop reports drive future research priorities and investments

ARPA-E

- \$425 million in new project funds
- Future topics under consideration:
 - Carbon-optimized bioconversion
 - Converting solid waste to energy-intensive materials
 - Ultra high-temperature materials for power generation applications
 - Next-generation energy storage devices
 - Synthetic biology for energy applications



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Engaging with DOE Office of Science

- **Office of Science Research**

- Basic, fundamental research to advance energy technologies in 6 major program areas (materials and chemistry research, advanced computing, biological and earth/environmental systems science, nuclear physics, high energy physics, and fusion and plasma sciences)
- Research priorities and future funding opportunities formed and identified in science community workshops known as Basic Research Needs workshop reports

- **Funding Mechanisms**

- Funding efforts support early career research faculty at single principal investigator level to center-level awards, such as Energy Frontier Research Centers and computational materials and chemistry research centers
- Targeted funding opportunity announcements (FOAs)
- Financial Assistance Program—open year-round for all research areas; innovative, high risk ideas outside of targeted funding solicitations for single principal investigators and small groups—\$350 million in FY 2020
- **Program managers very accessible and discussions with program managers before submitting applications increase chance of success**

- **Early Career Research Program**—usually ~50 early career scientists and researchers selected each year in the 6 major Office of Science disciplines, usually released in November

- Awards ~ \$750,000 for 5-years
- Researchers must be within 10 years of having received a Ph.D. and untenured assistant or associate professors on tenure track

Engaging with Applied Energy Offices

- ARPA-E
 - High-risk, high-reward energy technology developments projects funded over three years
 - Program managers have a lot of flexibility on developing and funding an energy technology portfolio
 - Targeted FOAs as well as seed awards (\$700k-\$1 million for two years) for the “Solicitation on Topics Informing New Program Areas”
 - Workshops define research priorities and future investments
- Applied energy programs—Renewables, energy efficiency, fossil, nuclear, grid modernization, cybersecurity of energy infrastructure
 - Multi-Year Program Plans: 5 year research priorities and goals of each program
 - Each applied energy program has yearly FOAs for early-stage, innovative technologies (e.g., BENEFIT, NEUP, fuel cells and hydrogen, solar technologies, bioenergy)
 - Larger-scale signature funding mechanisms: Energy Innovation Hubs, consortiums, traineeships, Clean Energy Manufacturing Institutes
 - **Relationships with DOE National Laboratories are critical**
 - **Annual peer reviews:**
 - Each applied energy program has an annual peer review of its projects and they are looking for faculty to volunteer
 - The peer review session is an excellent opportunity to understand program priorities, identify future academic, national lab, and industry partners on future funding calls, learn about currently funded projects, and see technical presentations from DOE program managers.
 - DOE gives preference to proposals submitted by former peer reviewers.



U.S. DOE Advanced Manufacturing Office
Virtual Program Peer Review
June 2 - 3, 2020

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National Institutes of Health (NIH)

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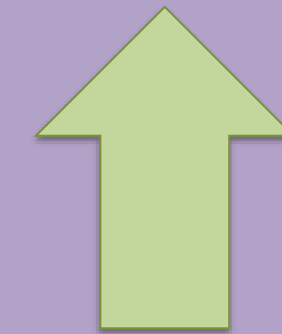
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National Institutes of Health



National Institutes
of Health

Funding Outlook: NIH funded at \$41.7 billion in FY 2020; fifth consecutive increase, with budget growing 40% in this period; strong bipartisan support but may be reaching a growth limit



Areas of trans-agency focus:

- COVID-19
- Aging and Alzheimer's Disease
- Opioids, addiction, pain management
- BRAIN Initiative
- Precision Medicine ("*All of Us*")
- Ending sexual harassment in science
- Combating foreign influence

Emerging Trends:

- Leveraging AI and computational approaches to combat chronic disease
- Agency-wide strategic plan for nutrition research
- Maternal and child health research
- Next Generation Researchers Initiative (NGRI) —support for "at risk" investigators across virtually all Institutes
- Favoring collaborative funding mechanisms (U awards) over program projects

Future Award opportunities:

- [HRHR](#) awards for Early Stage Investigators (R01s)
- Research facilities and construction (C06)
- Technology Development Resources
- Global Environmental and Occupational Health Hubs
- Conte Centers for translational neuroscience and mental health
- Administrative supplements in areas of emphasis (e.g. COVID-19; opioids; Research Continuity and Retention; AI/ML)

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How to Engage with NIH

- Understand the type of FOA and the type of grant mechanism you are applying for
 - R03, R21 awards provide smaller amounts of funding to encourage exploratory research, pilot studies, preliminary data collection (ramp up to the R01)
- Identify the program officer associated with the solicitation/program
- Engage with your sponsored research office on campus for insight on NIH processes
- Contacting NIH:
 - Email first rather than phone: summarize your research aims and how it fits into program officer's portfolio or solicitation
 - Any attachments summarizing your research should be no more than 1-2 pages
 - Always be courteous and seek specific feedback
 - Contact sponsored research or Lewis-Burke if getting no response from program officer
- Review the list of peer review panels and members on the Center for Scientific Review website
 - **Note:** If seeking to become a reviewer, NIH has an [Early Career Reviewer Program](#)
- Seek insight from program officer on peer review panels most appropriate to review proposal
- Suggest preferred panel on cover letter accompanying proposal



Additional Federal Early Career Opportunities

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Additional Agencies

- DOJ
 - National Institute of Justice (NIJ) used to have designated solicitation for early career faculty awards for general criminal justice research
 - Now starting to give special consideration to early career applicants in general research solicitations
 - ECF provision added to recent awards on forensic sciences and human trafficking research solicitations, could continue in next cycle
- USDA
 - Agriculture and Food Research Initiative (AFRI) extramural, annual competition (solicitation typically released Dec/Jan) that supports new investigator grants as a mechanism that individuals can apply to for research, education, or extensions activities/projects
 - Less than 5 years as post-grad career-track
 - May not have received any other federal grants (exception for AFRI seed grants)
- NEH
 - Fellowships: Awarded to individuals for 6-12 months, up to \$5000/month
 - Expected output: Book; Article; Digital Material & Publications; Archaeological Report; Translation; Edition; Other Scholarly Resource



Thank You For Your Time!

Questions?

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