

Lewis-Burke Associates, LLC Spring 2020

LEWIS-BURKE

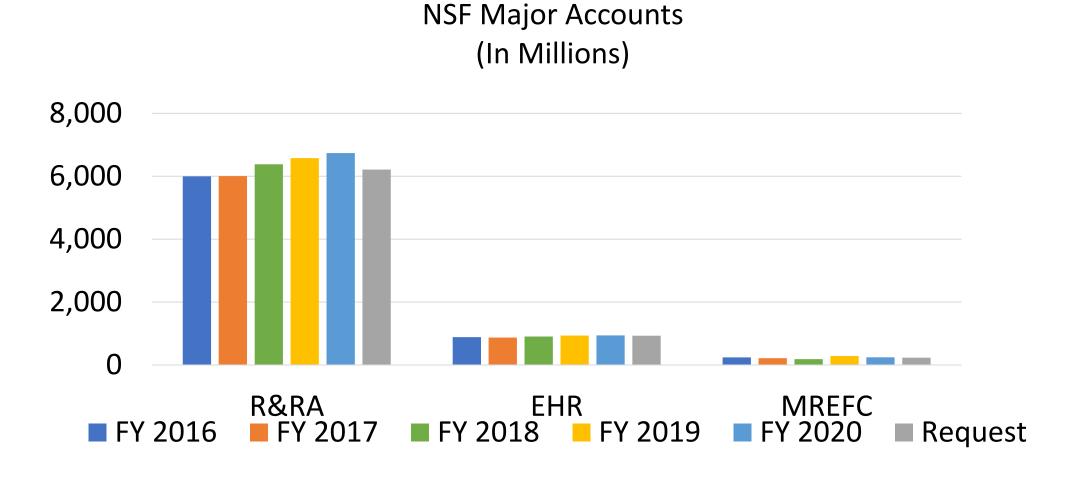
ASSOCIATES LLC

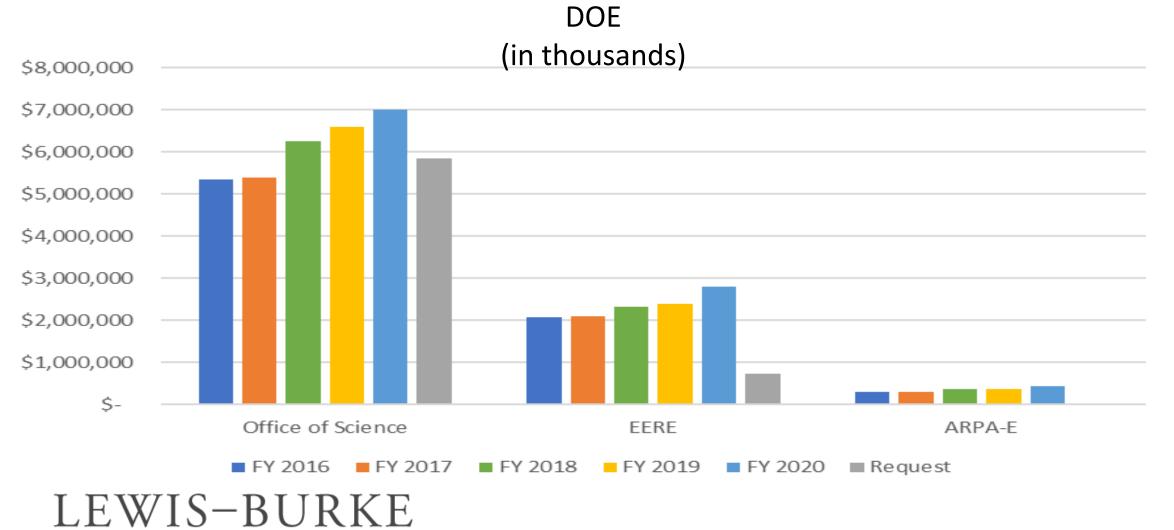
### About Lewis-Burke

- Founded in 1992; located in Washington, DC
- Twenty-eight policy experts with range of expertise/backgrounds allow multi-layered issue teams with deep expertise in agencies and scientific/higher education areas
- Support federal relations activities to 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 priorities/activities

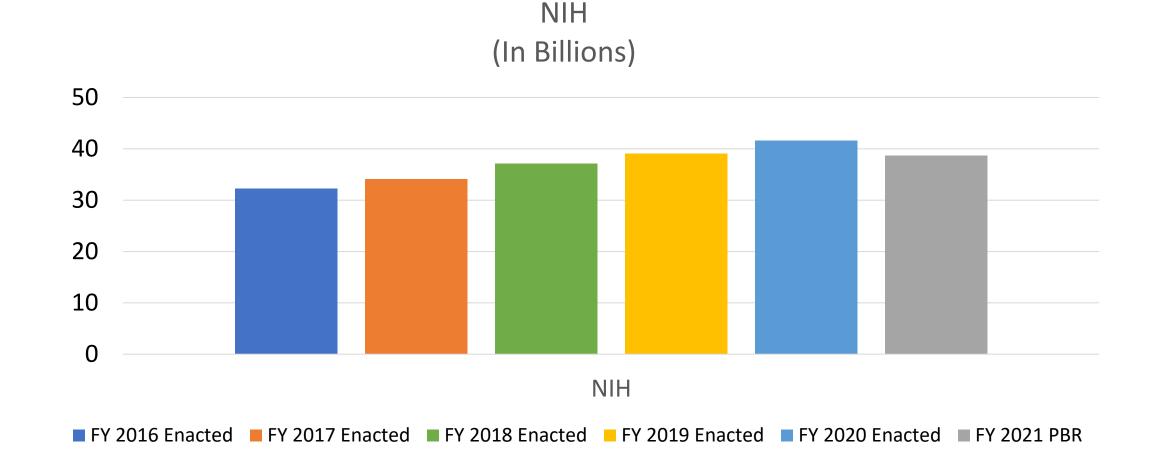


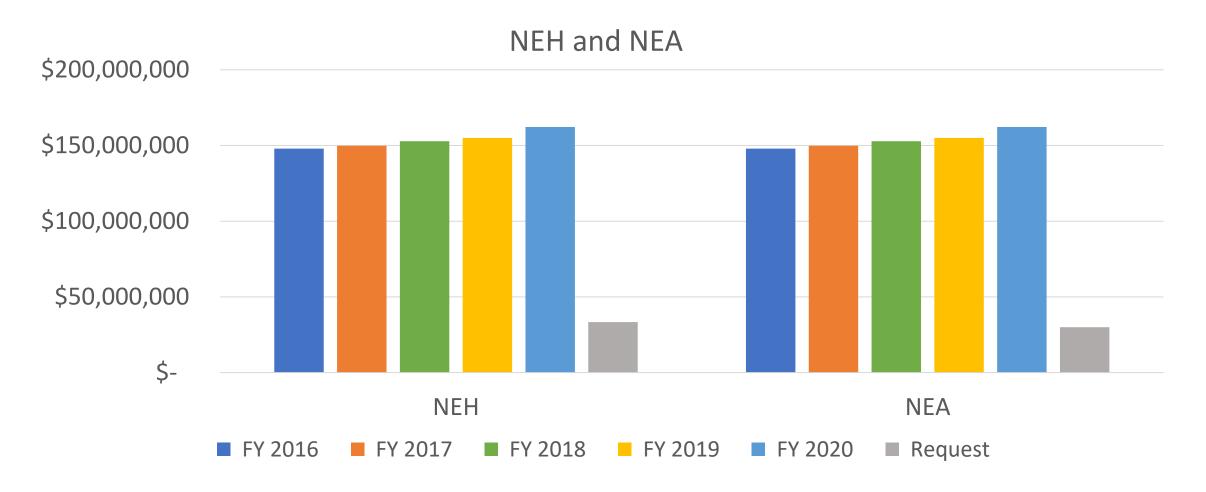
## Federal Funding: Status and Outlook





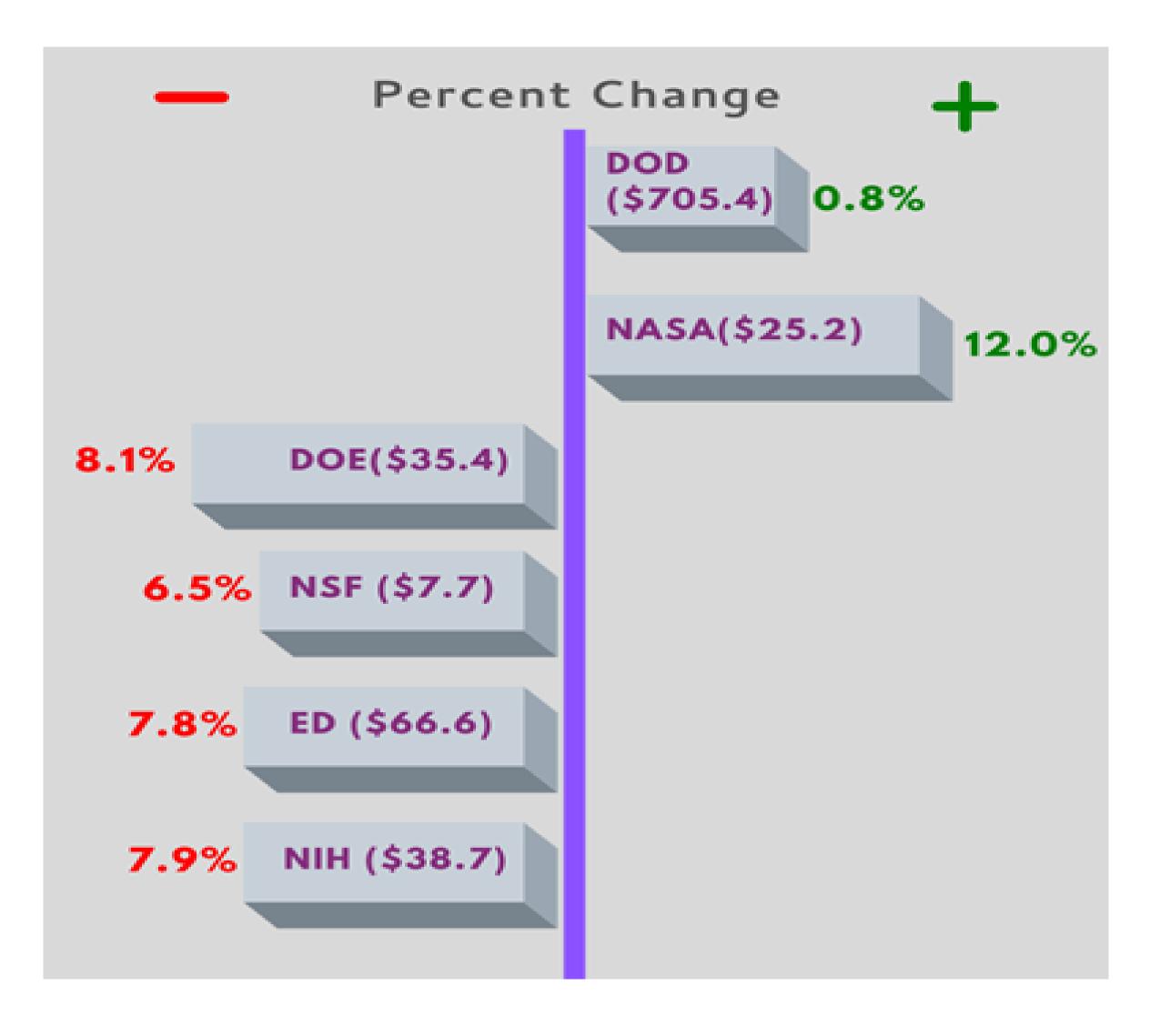
ASSOCIATES LLC





Federal Funding: President's FY 2021 Budget

Request



## 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)
  - –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)
- -Coronavirus impacts to be considered



### 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



### 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.

LEWIS-BURKE

## 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 3<sup>rd</sup> stimulus bill to support public health preparedness and response activities and \$1 billion in the 4<sup>th</sup> stimulus to support testing improvements



## COVID-19 – Federal Funding (2)

- **NSF** to receive additional \$75 million in 3<sup>rd</sup> 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 3<sup>rd</sup> stimulus bill
  - -Established National Virtual Biotechnology Laboratory as one stop shop for COVID-19 research and access to user facilities and computational resources (<a href="https://science.osti.gov/nvbl">https://science.osti.gov/nvbl</a>)
  - -Current focus on testing kits, manufacturing of ventilators, modeling, and therapeutics.

#### DOD

- -Funding opportunities focused on development and deployment of technology (PPE, N95 masks, ventilators) to assist COVID-19 response (\$1 billion for Defense Production Act)
- -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

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.

ASSOCIATES LLC

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

## Overview of Agency Priorities and Strategies

- **NSF** continued focus on Big Ideas:
  - Research Ideas: Data; Quantum; Astrophysics; Human-Technology Frontier; Rules of Life; New Arctic; Process Ideas: Mid-scale infrastructure; NSF 2026; INCLUDES;
     Convergence
  - New Activities: AI, CoPe, Infrastructure, Engineering Biology, Biological Integration Institutes
  - New Leadership Kelvin Droegemeier serving as Acting Director; NSF Director nominee "Panch"
- NIH organizing around priorities identified in 21st Century Cures Act; external forcing events
  - Neuroscience: aging, Alzheimer's Disease, BRAIN Initiative, addiction
  - Opioid epidemic: neurobiology of pain; non-opioid analgesics; MAT
  - Precision Medicine (big data)
  - Al and data science—new emphasis in FY 2021
- **DOD** following the National Defense Strategy (NDS)
  - Basic research continues to have strong congressional support
    - Small FY 2020 increase followed 8% increase in FY 2019
  - Emphasis on prototyping and development rather than S&T
  - Strong focus on priority technology areas: 5G, Al/machine learning, quantum, hypersonics, **microelectronics**, directed energy, space, autonomy, networked C3, and cybersecurity
  - Growing concerns about workforce needs, domestic student pipeline, and retention of foreign STEM students
- **DOE** prioritizing basic research and early-stage research for applied energy programs
  - Office of Science leading investments in Industries of the Future: AI/machine learning, quantum science and technology, microelectronics, and exascale computing
  - New initiatives focused on rare earth/separation science, polymer upcycling, and next generation biology
  - Top applied energy research priorities include advanced energy storage initiative, grid reliability and resiliency, and cybersecurity of energy assets
  - ARPA-E will continue to receive strong funding support, with future topics under consideration: carbon-optimized bioconversion, converting solid waste to energy-intensive materials, and ultra high-temperature materials for power generation applications

LEWIS-BURKE

## Opportunities Ahead

- COVID-19 Stimulus opportunities
- NSF:
  - -Currently under review ERCs, STCs, MRSECs, PFCs, Biology Integration Institutes, Al Institutes, Quantum Leap Challenge Institutes
  - -New opportunities expected in Mid-Scale (late 2020), Harnessing the Data Revolution Institutes (2021), Convergence Accelerators, Coastline and People (COPE), Additional AI and QL Institutes
  - -New social science programs on Infrastructure, Broadening Participation, and Trust in the digital realm
- DOE:
  - -Scientific Machine learning for AI applications, engineering biology, advanced microelectronics, advanced energy storage, nuclear energy science and technology
- DOD: Implementation of digital engineering strategy (Air Force COE); STEM Workforce Development BAA; Hypersonics consortium
- NIH: AI/ML and data science; gene therapy PPP; construction and infrastructure (C06); technology development centers; administrative supplements in areas of trans-agency emphasis
- DOT: Blockchain, AI, Asphalt Cement properties; AV
- NIST: potential Manufacturing Institute

ASSOCIATES LLC

### New or Expanded Areas on the Horizon

- Al-as-a-Service
  - -Explainable AI
  - -Adaptive Machine Learning
  - -Personalized and predictive medicine
- Quantum Networking and Communications
- Privacy
- Synthetic Biology / Engineered Biology
- Plastics
- Storage of renewable energy
- Advanced Manufacturing
- Microelectronics
- Next Gen Wireless
- Humanities / dialogue / future of democracy
- Biomedical technology, modeling, computation

- Infectious disease
- Mental Health
- Workforce agenda
  - –Apprenticeships
  - -Community colleges
  - -DOL/NSF
  - -Veterans
- China Concerns/Domestic S&E pathways
- Diversity/Title IX/Harassment/Assault/Free Speech
- Intellectual Property Security
- Social and Behavioral Science + X
- COVID-19



# Snapshot of Agency Priorities

ASSOCIATES LLC

### 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 Al 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; aging; AI/ML)

ASSOCIATES LLC

### Health and Human Services

HHS agencies have received funding increases to address substance abuse, Alzheimer's disease, and other Administration and congressional priorities.

Agency	Mission/Focus Areas	Current Priorities	Funding Outlook
Health Resources and Services Administration (HRSA)	<ul> <li>Workforce Education/Training</li> <li>Access to Care</li> <li>Community Health</li> <li>Health Disparities</li> </ul>	<ul> <li>Rural Health/Workforce</li> <li>Telehealth/Telemedicine</li> <li>SUD</li> <li>Aging/Alzheimer's Workforce</li> </ul>	
Agency for Healthcare Research and Quality (AHRQ)	<ul><li>Healthcare Delivery</li><li>Safety and Quality Research</li><li>Best Practices/Evidence Base</li></ul>	<ul> <li>Evaluating Systems and Emergencies</li> <li>Telehealth/Telemedicine</li> <li>Data/Predictive Analytics</li> <li>Diagnostics/Diagnosis</li> </ul>	
Substance Abuse and Mental Health Services Administration (SAMHSA)	<ul> <li>Behavioral Health</li> <li>Substance Use Disorder (SUD)</li> <li>Prevention and Treatment</li> </ul>	<ul> <li>Mental and Behavioral Health</li> <li>SUD</li> <li>Serious Mental Illness (SMI)</li> <li>Suicide Prevention</li> </ul>	
Centers for Disease Control and Prevention (CDC)	<ul> <li>Infectious Diseases</li> <li>Chronic Diseases</li> <li>Public Health/Emergency Preparedness</li> </ul>	<ul> <li>Global Pandemics (COVID-19, Zika, Ebola)</li> <li>Data Analytics and Surveillance</li> <li>Public Health Preparedness and Response</li> </ul>	
Patient Centered Outcomes Research Institute (PCORI)	<ul> <li>Value-Based Care</li> <li>Improving Outcomes</li> <li>Dissemination/Implementation</li> <li>PCOR Research Methods</li> </ul>	<ul> <li>System-wide Approaches</li> <li>Health Disparities</li> <li>Anxiety, PTSD, SUD Treatment</li> <li>Shared Decision Making</li> </ul>	

LEWIS-BURKE

### 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
- Convergence Accelerator second competition open tracks are Quantum and Al-Driven Innovation via Data and Model Sharing

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

#### **Emerging Priorities**

- Continued interest in partnerships (Amazon and AI, Boeing and INCLUDES, NIFA and Smart Ag, Simons and Rules of Life)
- Growing focus on Al new **Al 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

#### **News Directions Ahead**

- Kelvin Droegemeier serving as Acting Director, France Córdova term as Director ended March 2020; new Director "Panch" nominated
- Lots of Directorates in flux or preparing major changes (Margaret Martonosi of Princeton University 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



## 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)



- 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)

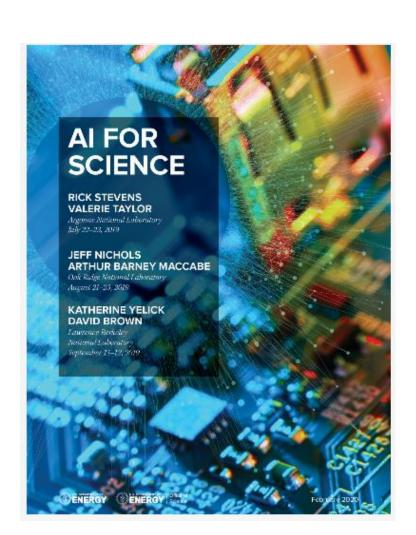
#### **Office of Science**

- 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



## Department of Defense

Funding Outlook: \$16.1 billion FY 2020 for S&T across Services (basic, applied, adv tech)

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



- Under Secretary of Defense for Research and Engineering (USD(R&E)) Mike Griffin's top technology focus areas:
  - o 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
- FY 2021: \$14 billion requested for S&T across Services



## Department of Defense

Service/Agency	Mission/Focus Areas	<b>Emerging Priorities/Opportunities</b>
<b>DARPA</b> Defense Advanced Research Projects Agency	Six offices: Biotechnology, Defense Sciences, Information Innovation, Microsystems, Strategic Technology, Tactical Technology  High risk, high reward research	<ul> <li>Engineered biology</li> <li>AI</li> <li>Cyber</li> <li>Communications</li> <li>Hypersonics</li> <li>Quantum Sciences</li> <li>Microelectronics</li> <li>Autonomy</li> <li>Space</li> <li>Nuclear Modernization</li> </ul>
OSD Office of the Secretary of Defense	<ul> <li>USD(R&amp;E) top technology focus areas:</li> <li>5G</li> <li>Directed energy</li> <li>Command, Control, and Comms</li> <li>Space Offense and Defense</li> <li>Cybersecurity</li> <li>Hypersonics</li> <li>Microelectronics</li> <li>Autonomy</li> <li>Al/Machine Learning</li> <li>Missile Defense</li> <li>Biotechnology</li> <li>Quantum Science and Computing</li> </ul>	<ul> <li>Space Development Agency</li> <li>Space science and technology R&amp;D/prototyping</li> <li>Defense Innovation Unit Prototyping</li> <li>Joint Artificial Intelligence Center (JAIC)</li> <li>National security innovation network</li> <li>University Hypersonics Consortium</li> <li>Manufacturing Innovation Institutes</li> </ul>
Army Research Lab (ARL/ARO)	Basic Research, Computational Sciences, Materials & Manufacturing Sciences, Propulsion Sciences, Network & Information Sciences, Ballistic Sciences, Human Sciences, Protection Sciences	Opportunities to engage through Army Futures Command and Army Modernization Priorities:  • Long Range Precision Fires  • Next Generation Combat Vehicle  • Future of Vertical Lift  • Air and Missile Defense
<b>Navy</b> Office of Naval Research (ONR)	Bio-Inspired Autonomous Systems, Command Decision Making and Modeling, Human Interaction with Autonomous Systems, Machine Learning/AI, Sensors, Materials	Revitalizing NPS; Want to tap into innovation ecosystem (Naval X) – leveraging multiple types of research collaboration and different contracting mechanisms  • Sea surface/undersea research and technology  • Al applicable to Navy
Air Force Air Force Research Laboratory (AFRL/AFOSR)	Aerospace systems, sensors, information, munitions, materials and manufacturing, directed energy, space vehicles, human performance, future tech, AI, quantum, hypersonics, microelectronics	<ul> <li>Air Force 2030 – new 'Vanguard' approach:</li> <li>AI, predictive data analytics, human-machine teaming</li> <li>Low cost air and space platforms, autonomy, swarms, digital and additive manufacturing</li> <li>Hypersonics, cyberwarfare, sensing, blockchain</li> <li>Quantum Center being established in Rome, NY</li> <li>Space Force Applied research programs</li> </ul>

### DOD Medical Research Priorities

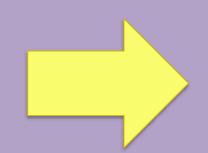


- **General mission** Support the Service Members, Veterans, and their families to aid and promote national security and defense
- **Hemorrhage** blood products (storage, transportation, in theater transfusions); extend blood platelet shelf life; improved pre-hospital treatments for critical patients; alternatives to using anti-biotics for post wound care
- Combat casualty care surgical systems and procedures, surgical en-route care, neurotrauma, minimizing blast-related injury
- Traumatic Brain Injury (TBI) classification of TBIs that can inform future technology and treatment strategies; biomarkers to replace CAT scans (affordability); development of chronic traumatic encephalopathy (CTE)
- Mental Health PTSD, suicide prevention; substance abuse, rural healthcare/telemedicine
- Pain Management Burn care, opioid use/misuse
- Infectious Disease prevention, diagnostics, therapeutics; surveillance; warfighter v. civilian health
- Health IT electronic health records, mobile health technology, telemedicine (in theater and at home)
- Chemical, Biological, Radiological, and Nuclear (CBRN) Threats surveillance, prevention, detection, and treatment
- Human Performance Optimization readiness, rehabilitation, fatigue/sleep, nutrition



## Department of Education Research

Funding Outlook: IES received a small 1.3 percent increase in FY 2020, up to \$623 million Trump Administration proposed a 9.3 percent cut in FY 2021, but Congress is likely to reject cuts



#### **Agency Priorities**

- Main IES focus is measurable improvement to learning outcomes
- IES has greater emphasize on career and technical education, workforce development, post-collegiate outcomes and general interest in "rethink" of education and teacher training
- IES Director Mark Schneider pushing new directions and changes to IES research, with greater emphasis on usability among practitioners

#### **Emerging Priorities**

- Recent NCER and NCSER funding opportunities included changes:
  - Move from research goals to types of projects
  - New requirements for cost analyses for practitioners
  - New Standards for Excellence in Education Research (SEER)
- New targeted replication studies
- IES Director Mark Schneider will often solicit community feedback on priorities and potential changes via blog posts on the IES website
  - Accepting feedback on revision and elimination of research topic areas for future competitions
  - Potential topics for off-cycle competitions:
    - Using state longitudinal data systems to measure long-term outcomes (OPEN)
    - Using NAEP process data
    - Systematic evaluation of widely used math and reading programs



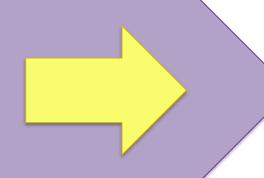
### Arts and Humanities





#### Funding Outlook: Congress will reject Trump Admin proposal to eliminate NEH and NEA

Congress provided minor funding increases the last few fiscal years



#### **National Endowment for the Humanities**

- Chair Jon Parrish Peede has interest in greater civic education efforts and rural area support
  - Competitions now include special emphasis for 250th anniversary of American independence and advancing civic education, reflecting new "A More Perfect Union" initiative
  - Increased emphasis on connections with sciences, other institutions/organizations
- NEH has been investing in humanities infrastructure and capacity-building activities
- Continued focus on digital humanities and understanding the experience of war
- NEH received \$75 million in stimulus funding to support entities impacted by COVID-19

#### **National Endowment for the Arts**

- Chair Mary Anne Carter confirmed last year
  - Interest in veterans' arts programs and public access to arts
- Same grant programming on-going under new names (Art Works now Grants for Arts)
- NEA Research office continuing signature opportunities
  - Research Grants in the Arts (previously Research: Art Works – research on value and impact of arts)
  - NEA Research Labs transdisciplinary research of arts+ health/wellness/cognition/learning/innovation
- NEA received \$75 million in stimulus funding to support past grantees impacted by COVID-19

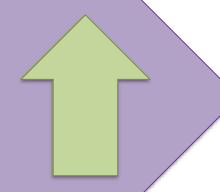


## Economic Development Administration



Funding Outlook: EDA received a 9.5 percent increase over FY 2019: \$330 million in FY 2020

The agency remains a target for elimination by the administration



### **Build to Scale** (redesigned Regional Innovation Strategies Program for 2020)

- Promotes public-private partnerships focused on job creation, commercialization activities, and innovative research enterprises
- Annual program; new concept proposals were due March 24
- Opportunities include:
  - Venture Challenge (frm. i6 Challenge): Proof-of-concept centers that encourage entrepreneurship and accelerate the commercialization of research
    - Up to \$1.5 million for awards under new funding mechanisms
  - Capital Challenge (frm. Seed Fund Support):Development of seed capital funds to help local startups commercialize new technologies
  - -<u>Industry Challenge</u> (NEW for 2020): Support industries in the Blue Economy (leverage water or marine resources).



#### **Public Works and Economic Adjustment Assistance**

- Supports economic development in qualified distressed regions through construction, non-construction, technical assistance, and revolving loan fund projects.
- Opportunity Zones being considered as qualification for these programs
- \$1.5 billion from CARES Act for economic development through this program.

**University Center** awards stimulate economic growth through technical assistance, commercialization support, business consultation, and planning. The next competition in FY 2021 is for states covered by the EDA's Philadelphia (East coast) and Chicago (Midwest) regional offices.

### Contact Us

- Bill@Lewis-Burke.com
- Paula@Lewis-Burke.com
- <u>Leland@Lewis-Burke.com</u>
- Naomi@Lewis-Burke.com
- Nicole@Lewis-Burke.com

LEWIS-BURKE

ASSOCIATES LLC