

Meeting Minutes
Associate Deans for Research

Friday, May 15, 2015, 9:00-10:30 a.m.
SEB 2251

In Attendance: Connie Mobley, Helga Watkins, Kendall Hartley, Andrew Hanson, Jennifer Keene, Annette Day, Javier Rodriguez, Tara Emmers-Sommer, Carol Brodie, Caleen Johnson, Lori Olafson, David Paul, Robin Toles, Tom Piechota, Sue DiBella, Laurie Fruth, Brian Hedlund, and Jill Zimbelman

1. General Announcements/Updates – Tom Piechota
 - a. Presidential Inauguration
 - b. CoRE Update – Jennifer Keene
 - i. CoRE is in a holding pattern during the transition of provosts
 - c. Top Tier Planning – Tom Piechota
 - i. Nancy Rapoport will be joining us next month for a lunch meeting, along with the Research Council, to discuss Top Tier initiatives and collect input from the group
 - ii. If you will not be in attendance, please let Jill Zimbelman know at jill.zimbelman@unlv.edu.
2. Inclusion of Videos on Grant Proposals – Laurie Fruth
 - a. Please see attached document and provide this information to your units.
3. F&A Space Survey – David Paul
 - a. UNLV, along with Huron Consulting Group, will be performing a functional space survey
 - b. Room types included: Research Labs and Research Lab Support Rooms (i.e. equipment rooms, cold rooms, recharge rooms, clean rooms, etc.)
 - c. Space representatives for each identified unit, with substantial sponsored grant and contract activity, are required to attend a training session on June 1 or 2.
 - d. If you have questions about the training, please contact Kathleen Norton in OSP at 895-1347 or Kathleen.norton@unlv.edu.
4. iNtegrate II: New HR/Finance system implementation of Workday – David Paul
 - a. David will keep the Associate Deans for Research and Research Council updated on timelines, etc. in regards to this transition from Advantage.
5. Federal Funding Priorities – Brian Hedlund (handout)
 - a. President Obama presented his budget for Fiscal Year 2016 to congress in January, which must be approved by Congress before October 1.
 - b. The President's budget proposal increases funding for most federal research funding agencies, including those supporting the arts, education, sciences, and engineering.
 - c. Documents provided to UNLV personnel include one-page summaries on the President's requests for nine agencies and abbreviated summaries for seven additional agencies.
 - d. These summaries are distilled from 150 to 200 page documents with help from an AAAS report and various press releases.
 - e. Administrators and faculty are encouraged to study the summaries, references, and additional sources as they consider strategic plans for Top Tier planning.

6. Volunteer for Spotlight on Research
 - i. July 17 – Jennifer Keene
 - ii. August 21 –
 - iii. October/November – Ramona Denby-Brinson

Upcoming Meetings & Events

May 21 – VA/UNLV Research Event, VA Southern Nevada Healthcare System Hospital

May 25 – Memorial Day (Campus Closed)

May 28 – TAC Meeting, LVGEA

Next Associate Deans for Research Meeting:

Friday, June 05, 2015, 11:30 a.m.-1:00 p.m. in LLB #3281

Joint Lunch Meeting with Research Council

Working with UNLV TV

- Who we are: UNLV TV is a high-definition, file based media production facility housed within the Hank Greenspun School of Journalism and Media Studies. The unit employs five professional staff members and approximately thirty student workers. Its mission is to create educational content for and about the University of Nevada, Las Vegas.
- What we can do for you. UNLV TV offers field and studio production capabilities and works on projects both large and small.
 - **Want to make a TV show? We have a 2,182 square foot, four camera performance studio and fully equipped control room.** Examples of studio based programming that we've produced in the past include: The Expressive Actor—a series of acting classes to accompany a textbook by Michael Lugering; Desert Survivor—a series of half hour programs on desert creatures funded by Frank van Breukelen's NSF grant; Creatures of the Night—a short studio program with biologist Michael Webber featuring field produced stories on bats, scorpions and frogs.
 - **Need to reach audiences away from your building or across the world? Our Ultra grid teleconferencing technology creates a low latency signal (one twentieth of a second) with high definition image quality.** Examples of Ultra Grid productions include: Time Lapse—a devised theater piece in which actors from UNLV and Westin College in the UK performed together for both a live audience and online audience; UNLV School of Dentistry surgery transmitted via UltraGrid to lecture halls and conference audiences.
 - **Have an event that requires the flexibility of multiple cameras but needs to be in front of an audience? We have a portable television studio that we can set up in an auditorium, a sports field or even a surgical unit. Our Fly Pack includes up to four cameras, audio, switching and camera controls and includes streaming capability.** Examples of Fly Pak productions include: The 2015 Inauguration Ceremony for Len Jessup, the Annual State of the University Address, and several UNLV athletic events.
 - **Want to showcase your research in a short, compelling video piece that you can put on your web site or carry on a flash drive? We have professional photographers and editors who can help you tell your story with Sony EX-3 field cameras and Avid Nitris editing suites.** Ernesto Abel-Santos, Marty Schiller, Janet Dufek and James Mah are just a few of the researchers we've profiled with compelling video stories.
 - **Need to stream a lecture or panel discussion to the rest of the world? Our 200- seat auditorium is wired for television cameras, has full streaming capability and includes all the audio visual capabilities you'll need.** Examples of events recorded in the auditorium include the 2014 Alumni Association awards, the Brookings Mountain West Lecture Series and the 2014 Convergence Conference.
- Why you should use us.

- We're part of the campus community and we understand the time constraints of busy researchers.
- We're committed to providing our students with experiential opportunities that help them develop their professional skills,
- We provide high-quality product at an affordable price- and we're willing to work with you to meet your needs within a budget.

FEDERAL FUNDING PRIORITIES

FY 2015-2016



Prepared by

UNLV Office of Vice President for Research and Economic Development

Source:

Advancing Science, Serving Society (AAAS.org) - AAAS report on The President's FY 2016 Budget

Federal Funding Research Priorities

		Change FY 15-16	
	FY16 Budget (Millions)	Amount (Millions)	Percent
National Science Foundation			
Biological Sciences (BIO)			
Integrative Organismal Systems	\$215	\$2	0.8%
Environmental Biology	\$145	\$1	0.9%
Biological Infrastructure	\$145	\$3	2.0%
Computer & Information Science & Engineering (CISE)			
Computer and Network Systems	\$236	\$9	3.8%
Advanced Cyberinfrastructure	\$227	\$8	3.9%
Engineering (ENG)			
Industrial Innovative Partnership	\$248	\$21	9.3%
Civil, Mech, & Manufacturing Innovation	\$223	\$13	6.3%
Geosciences (GEO)			
Ocean Sciences	\$370	\$14	3.8%
Polar Programs (Infrastructure)	\$316	\$9	2.8%
Mathematical and Physical Sciences (MPS)			
Materials Research	\$316	\$9	2.9%
Physics	\$277	\$2	0.9%
Social, Behavioral, and Economic Sciences (SBE)			
Social and Economic Sciences	\$105	\$7	7.6%
Behavioral and Cognitive Sciences	\$102	\$7	7.7%
International & Integrative Activities			
EPSCoR	\$170	\$10	6.4%
NSF FY16 Cross-Foundation Investments			
Understanding the Brain (UtB)	\$144		
Risk and Resilience	\$58		
Innovations at the Nexus of Food, Energy, and Water Systems (INFEWS)	\$75		
Inclusion across the Nation of Communities of Learners that have been Underrepresented for Diversity in Engineering and Science	\$15		
Ongoing NSF-Wide Priorities			
Clean Energy	\$377		
Cyber-enabled Materials, Manufacturing, and Smart Systems (CEMMSS)	\$257		
Cyber Infrastructure Framework for 21 st Century Science, Engineering, and Education (CIF21)	\$143		
Innovation Corps (I-Corps)	\$30		
NSF Research Traineeship (NRT)	\$62		
Research at the Interface of Biological, Mathematical, and Physical Sciences (BioMaPS)	\$33		
Science, Engineering, and Education for Sustainability (SEES)	\$81		
Secure and Trustworthy Cyberspace (SaTC)	\$124		

National Institutes of Health (by Institute)	FY16 Budget (Millions)	Change FY 15-16	
		Amount (Millions)	Percent
Cancer	\$5,098	\$145	2.9%
Allergy and Infectious Diseases	\$4,615	\$197	4.5%
Heart, Lung, and Blood	\$3,072	\$76	2.5%
General Medical Sciences	\$2,434	\$61	2.6%
Diabetes, Digest, and Kidney	\$1,938	\$39	2.1%
Neurological Disorders	\$1,660	\$56	3.5%
Mental Health	\$1,489	\$56	3.9%

NIH Priorities (White House Initiatives)

Precision Medicine Initiative (PMI) *NIH is the lead agency	\$200
Antimicrobial Resistance *NIH and Biomedical Advanced Research and Development Authority (BARDA)	\$650
Brain Initiative *Brain Research through Advancing Innovative Neurotechnologies (BRAIN) includes 5 agencies	\$135
Alzheimer's Disease - Accelerating Medicines Partnership (AMP)	\$23
HIV/AIDS *\$100 million increase to expand NIH efforts, total budget for NIH was not provided	\$100

Department of Energy (by Program)	FY16 Budget (Millions)	Change FY 15-16	
		Amount (Millions)	Percent
DOE R&D by Function			
General Science	\$4,900	\$220	4.7%
Defense	\$4,676	-\$76	-1.6%
Select Discretionary Budgets			
Office of Science	\$5,340	\$272	5.4%
Energy Efficiency & Renew Energy	\$2,723	\$809	42.3%

Department of Homeland Security	FY16 Budget (Millions)	Change FY 15-16	
		Amount (Millions)	Percent
Science and Technology	\$471	-\$334	-41.5%

National Aeronautics & Space Administration	FY16 Budget (Millions)	Change FY 15-16	
		Amount (Millions)	Percent
Science	\$5,144	-\$40	-0.8%
Exploration	\$4,029	\$9	0.2%

		Change FY 15-16	
	FY16 Budget (Millions)	Amount (Millions)	Percent
Department of Defense			
Overall Research and Development	\$71,900		9%
Science and Technology			
Basic Research	\$2,100		-8.3%
Applied Research and Advanced Technology Development			1.4 &
Defense Health Program			2.6%
			-43.4%
		Change FY 15-16	
	FY16 Budget (Millions)	Amount (Millions)	Percent
National Endowment for the Humanities			
Overall Budget	\$148		1.35
		Change FY 15-16	
	FY16 Budget (Millions)	Amount (Millions)	Percent
National Endowment for the Arts			
Overall Budget	\$148		1.3%
		Change FY 15-16	
	FY16 Budget (Millions)	Amount (Millions)	Percent
Department of Education			
Overall Budget	\$70,700		5.4%
		Change FY 15-16	
	FY16 Budget (Millions)	Amount (Millions)	Percent
Department of Agriculture			
Agriculture and Food Research Initiative	\$450		38.5%
Forest and Rangeland Research	\$292		

Note: Data Source is Advancing Science, Serving Society (AAAS.org)

National Science Foundation

The National Science Foundation's (NSF) mission is "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense..." Over 75% of NSF's budget supports research at colleges and universities, providing approximately 25 percent of all support for basic research at U.S. academic institutions. The proposed FY 2016 budget for the NSF is \$7.7 billion, which is 5.2 percent above the FY 2015 budget. Approximately 83.5% of the budget is allocated to Research and Related Activities (R&RA), with 13.6% allocated to Education and Human Resources (EHR) and 2.8% to Major Research Equipment and Facilities Construction (MREFC). This budget includes nominal increases in all NSF directorates, with the largest increases in the Engineering Directorate (ENG; 6.4%) and Social, Behavioral, and Economic Sciences Directorate (SBE; 7.1%). This budget also includes support for cross-foundation investments in four areas: Understanding the Brain (UtB); Risk and Resilience; Innovations at the Nexus of Food, Energy, and Water Systems (INFEWS); and the Inclusion across the Nation of Communities of Learners that have been Underrepresented for Diversity in Engineering and Science (NSF INCLUDES).

The directorates emphasized the following challenges and initiatives for FY 2016:

- **Biological Sciences (BIO):** Synthesizing life-like systems; understanding the human brain; predicting an organism's characteristics based on DNA sequencing; examining interactions between the earth, climate, and biosphere; and understanding biological diversity.
- **Computer and Information Science and Engineering (CISE):** Cyber-enabled Materials, Manufacturing, and Smart Systems (CEMMSS); Cyberinfrastructure for 21st Science, Engineering, and Education (CIF21); Risk Resilience; and Understanding the Brain (UtB).
- **Engineering (ENG):** Diverse government-wide and agency-wide initiatives including the BRAIN Initiative, the Advanced Manufacturing Partnership, and the National Nanotechnology Initiative.
- **Geosciences (GEO):** Basic geosciences research, including the Academic Research Fleet; the Arctic Research Support and Logistics; the International Ocean Discovery Program; and the National Center for Atmospheric Research.
- **Mathematical and Physical Sciences (MPS):** Disciplinary and multidisciplinary programs, including research in the astronomical sciences, chemistry, materials research, and physics and support for several large facilities.
- **Social, Behavioral, and Economic Sciences (SBE):** Advancing knowledge in the social, behavioral, and economic sciences broadly; sustaining the directorate's strategic transformation through its continued investment in interdisciplinary research and training; and investing and participating in NSF-wide initiatives.

Reference: Scott A and Smith T. 2015. [Agency Budgets: CHAPTER FIVE National Science Foundation](#). In AAAS report on The President's FY 2016 Budget.

National Institutes of Health

The National Institutes of Health (NIH) is the second largest supporter of research in the federal government, and by far the largest federal supporter of basic and applied research at colleges and universities. The proposed FY 2016 budget for the NIH is \$31.3 billion, which is 3.3 percent above the FY 2015 budget. This budget includes 2 to 4 percent increases in most of NIH's institutes and centers, with the largest increase to the National Library of Medicine, with an increase in 16.8 percent jump, due to expansions in big data and ClinicalTrials.gov. NIH's FY 2016 budget focuses on four long-running themes.

NIH FY 2016 budget focuses on four long-term themes:

- **Basic Research:** Focal areas include cellular imaging techniques; efforts to study single cells, including genomic editing; and the 4D Nucleome Initiative, which studies the physical structure of the nucleus.
- **Translational Medicine:** Focal areas include Ebola vaccine development, the Lung-MAP public-private partnership in personalized medicine, the development of pluripotent stem cells from mature cells, development of a universal flu vaccine, and HIV/AIDS research.
- **Data & Technology:** Focal areas include cancer research, the Human Microbiome Project, NIH's Big Data to Knowledge (BD2K) program, and bioelectronic medicine.
- **Biomedical Workforce:** Specific programs include the Broadening Experiences in Scientific Training (BEST) program; the Building Infrastructure Leading to Diversity (BUILD) Program; and the National Research Mentoring Network.

NIH also plans to invest in three key White House Initiatives in FY 2016:

- **Precision Medicine Initiative:** PMI would support the creation of a national cohort of a million or more research volunteers who would share genomic data, lifestyle information, and biological samples, all linked to their electronic health records.
- **Antimicrobial Resistance:** Investment focuses on an Antimicrobial Resistance program addressing the challenges associated with infections that are resistant to antibiotics, including a national database of genomic sequences for antibiotic-resistant microbes and the development of better diagnostics.
- **BRAIN Initiative:** The Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative focuses on the development of innovative technologies to advance basic neuroscience; the generation of methods to classify the brain's diverse cells and circuits; and the development of new, non-invasive tools for human brain imaging.

Reference: Heath E. 2015. [Agency Budgets: CHAPTER SIX National Institutes of Health](#). In AAAS report on The President's FY 2016 Budget.

National Aeronautics and Space Administration

Congress established NASA through the National Aeronautics and Space Act of 1958 to provide the research and capabilities needed to give the U.S. a viable space program while maintaining its competitive edge in aeronautics. The proposed FY 2016 NASA budget is \$19.5 billion, a 2.9% increase over the FY 2015 budget. The FY 2016 budget focuses on science and exploration, and funds missions to Mars and to the Jovian moon, Europa. The budget includes modest increases for the Human Exploration and Operations Mission Directorate (3.4%), the Science Mission Directorate (0.8%), and the Space Technology Mission Directorate (1.1%), but with cuts to the Aeronautics Research Mission Directorate (12.2%).

The directorates emphasized the following directions for FY 2016:

- **Human Exploration and Operations Mission Directorate:** Space Operations will focus on providing mission-critical space communications and navigation services to customer missions, including human, science, and commercial crew and cargo missions. The Exploration Mission will investigate and mitigate the risks to human health in space exploration and develop and implement life support systems, habitat research, and other human life supporting activities that will sustain future NASA human space exploration beyond lower Earth orbit.
- **Science Mission Directorate:** Funding for this directorate maintains support for five themes: Earth Science, Heliophysics, Planetary Science, Astrophysics, and James Webb Space Telescope. This directorate leads efforts to explore and study Earth and other bodies in the solar system using space observatories and satellites.
- **Aeronautics Research Mission Directorate:** This directorate will continue to develop technologies making air transportation safer. A challenge of growing importance is the development of technologies to increase efficiency without negatively affecting the environment. Three programs are in focus: Transformative Aeronautics Concepts Program; Integrated Aviation Systems Program; Advanced Air Vehicles Program; and Aviation Operations and Safety.
- **Space Technology Mission Directorate:** This directorate contains both near-term mission-driven and long-term transformative technology research programs, such as the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs and the Agency Technology and Innovation program.

Reference: Walters S and Sidorek S. 2015. [Agency Budgets: CHAPTER EIGHT National Aeronautics and Space Administration](#). In AAAS report on The President's FY 2016 Budget.

Department of Energy

The DOE sponsors the Nuclear Weapons Program, radioactive waste disposal, energy innovation, conservation and production, and large-scale research in genomics. DOE sponsors more research in the physical sciences than any other U. S. federal agency, the majority of which is conducted through its system of National Laboratories. The presidential FY 2016 budget request reflects strong preferences for Energy Efficiency and Renewable Energy (EERE), Advanced Research Projects Agency-Energy (ARPA-E), climate change accounts across subprograms, ASCR and the National Nuclear Security Administration (NNSA); however, there is significant opposition to several of these programs in Congress so the final budget may not fully reflect these priorities. Under the President's request, spending for EERE and ARPA-E would increase 42.3 and 16.1 percent, respectively, while Office of Science basic research programs would receive modest increases or, in some cases, cuts.

Administrative divisions within DOE report the following:

Energy Programs: Significant increases are planned for Solar (44.5 percent) and Wind Energy (36.0 percent) would support DOE's Clean Energy Manufacturing Initiative to improve U.S. competitiveness. The 74.5 percent increase for Geothermal Technologies would support full implementation of the Subsurface Technology and Engineering crosscut. Two other programs would receive strong budgetary bumps, Electricity Delivery and Energy Reliability (OE) and ARPA-E. Fossil Energy R&D and Nuclear Energy would continue to be targets for budget cuts.

Office of Science: Most SC programs would receive increases of 3 to 6 percent, but Advanced Science and Computing Research (ASCR) would increase by nearly 15 percent, while Fusion Energy Sciences (FES) would decline sharply. The request for ASCR, which focuses on computational and networking capabilities, would include large upgrades for the National Energy Research Scientific Computing Center. The Basic Energy Sciences (BES) proposed budget highlights funding for operation of BES user facilities and several construction projects, including the Linac Coherent Light Source-II at SLAC National Accelerator Laboratory. The Biological and Environmental Research (BER) proposal focuses on Climate and Environmental Sciences, the Exascale Computing crosscut, and the Energy-Water Nexus crosscut. The High Energy Physics (HEP) request would begin implementation of the [P5 Report's](#) recommendations, addressing five science drivers and increasing the emphasis on international partnerships. The Nuclear Physics (NP) budget requests modest gains, including facility operations and construction.

Atomic Energy Defense Activities: The presidential request would provide a 10.2 percent increase for the National Nuclear Stockpile Administration (NNSA), including funding for two crosscuts, Cybersecurity and Exascale Computing and Advanced Manufacturing Development, and increase for operations at NNSA's three major high-energy-density facilities.

Reference: Lubell MS and Elsesser MT. 2015. [Agency Budgets: CHAPTER SEVEN Department of Energy](#). In AAAS report on The President's FY 2016 Budget.

Department of Defense

The Department of Defense is the largest federal sponsor of research and development (R&D), with the majority funded through the Research, Development, Test, and Evaluation (RDT&E) accounts. The FY 2016 budget request includes \$71.9 billion for R&D activities at the DOD, a roughly 9 percent increase over FY 2015. The proposed increases in DOD R&D are mostly confined to the later-stage development activities. Most DOD research funding is divided into three categories, basic research, applied research, and advanced technology development and is further categorized according to the military branch: Army, Navy, Air Force, and Defense-wide. Funding for basic research would fall by over 8 percent, while funding for DOD Science and Technology (S&T) remains relatively unchanged.

Research units within DOD report the following:

Science and Technology: S&T is the incubator for next-generation defense technologies and capabilities, and serves three primary goals: mitigate new and emerging threat capabilities, affordably enable or extend capabilities in existing systems, and develop technology surprise. The budget request aims to rebalance the Asia Pacific region and implement the Defense Innovation Initiative, which seeks to identify investments in new areas of innovation to carry the military through the 21st Century.

Basic Research: The FY 2016 budget request proposes \$2.1 billion for basic research, an 8.3 percent decrease from the FY 2015 enacted and \$28 million below the FY 2013 budget request. These reductions would be distributed among all of the services, with the Air Force receiving the biggest cut at 11.9 percent. Army basic research would be cut by 7.6 percent; Navy, by 9.7 percent; and Defense-wide agency basic research, by 4 percent.

Applied Research and Advanced Technology Development: Applied research and advanced technology development would receive modest increases of 1.4 percent and 2.6 percent, respectively, under the proposed FY 2016 budget. For applied research, the Army budget would take a dramatic reduction of 10.4 percent, while Navy would receive a 0.6 percent reduction. Those cuts would boost budgets at the Air Force (10.6 percent) and Defense-wide agencies (3.3 percent). The Army advanced technology development budget would also see cuts under the FY 2016 budget, a nearly 20 percent reduction from FY 2015 enacted. The remaining services would see budget increases: Navy (4.4 percent), Air Force (7.3 percent), Defense-wide (9.6 percent).

Defense Health Program: The Defense Health Program falls outside of RDT&E, but has become another source of biomedical funding. However, it has come under scrutiny in recent years, with some in Congress questioning whether or not it is duplicative of biomedical research funding through the National Institutes of Health. The FY 2016 budget request would cut the Defense Health Program by 43.4 percent from the FY 2015 enacted level.

Reference: Vetterkind M. 2015. [CHAPTER ELEVEN: Department of Defense](#). In AAAS report on The President's FY 2016 Budget.

National Endowment for the Humanities

The National Endowment for the Humanities (NEH) awards grants supporting research, education, and public programs in history, philosophy, literature and other areas of the humanities. The FY 2016 budget request of \$148 million represents a 1.3% increase over the FY 2015 allocation.

The request includes:

- \$104.2 million for NEH's grant programs in support of projects in the humanities, including \$43 million for the operations, projects, and programs of the state and territorial humanities councils;
- \$5.5 million for a new special initiative – [The Common Good: The Humanities in the Public Square](#) – in support of projects that demonstrate the critical role the humanities can play in our public life, and the continuation and expansion of [Standing Together](#), the Endowment's special programming for veterans and active duty military; and
- \$10.9 million in federal matching funds, including funding for the agency's [Challenge Grants](#) program to help stimulate and match private donations in support of humanities institutions and organizations.

References: Wasley P. 2015. [Obama Administration Requests \\$147.9 Million for National Endowment for the Humanities in 2016](#). Press release retrieved 5/14/15.

[National Endowment for the Humanities Appropriations Request for Fiscal Year 2016](#)

National Endowment for the Arts

In 2015, the National Endowment for the Arts (NEA) will celebrate its 50th anniversary. The NEA's vital support of the arts acts as a catalyst and collaborator as it makes key investments throughout the nation, leveraging resources, and providing strategic leadership through core programs, including those for dance, design, folk and traditional arts, literature, local arts agencies, media arts, multidisciplinary arts, music, theater, visual arts, and through other programs. The FY 2016 budget request of \$148 million represents a 1.3% increase over the FY 2015 allocation. The NEA requests a budget of \$148 million for FY 2016.

The FY 2016 budget request includes the following priorities:

- The NEA's core grant programs comprise 80 percent of the FY2016 budget request and include direct grants, grants to the NEA's State and Regional partners, and [Our Town](#) grants.
- The NEA continues to play a leadership role throughout the federal government in demonstrating how arts inclusion and federal partnerships can contribute toward the goals of other federal agencies, including notably, the Department of Defense (DOD).
- The NEA is expanding the purview of its office of Arts Education to develop a research and data agenda that is useful for state departments of education
- Research and program evaluation efforts have been refocused to allow the agency to better assess and analyze the impact of the NEA's investments, as well as the impacts of the arts more broadly in this country.

Major grant programs available from the NEA include [Art Works](#) (\$49.4 million), [Our Town](#) (\$5.1 million), [Challenge America](#) (\$1.5 million), and [State and Regional Partnerships Grants](#) (\$47.4 million).

References: [National Endowment for the Arts Appropriations Request for Fiscal Year 2016](#)

Department of Education

The proposed FY 2016 budget of \$70.7 billion in discretionary appropriations, a 5.4% increase, includes key investments to expand high-quality early learning programs; increase equity and opportunity for all students; support teachers and school leaders; and improve access, affordability and student outcomes in college.

Key education investments include:

Increasing equity and opportunity. An increase of \$2.7 billion for Elementary and Secondary Education Act programs, including \$1 billion for Title I, to ensure that all students – which includes poor and minority students, students with disabilities, and English learners - graduate from high school prepared for college and careers. An increase of \$175 million for Individuals with Disabilities Education Act Part B grants to support the work that states are doing to improve results for children with disabilities and another \$115 million for programs for younger children with disabilities.

Expanding high-quality early learning programs. \$75 billion over 10 years for the Preschool for All proposal to provide universal high-quality preschool programs for all 4-year-olds from low- and moderate-income families. \$750 million for Preschool Development Grants, an increase of \$500 million, to help states lay the foundation for universal public preschool

Supporting teachers and leaders. \$5 billion over five years for a new, mandatory Teaching for Tomorrow program to support fundamental changes in how states and school districts recruit and prepare new teachers and strengthen professional support for teachers throughout their careers. \$350 million for Excellent Educators Grants to provide funds for states and school districts committed to implementing new systems that develop, support, reward and advance teachers and principals

Improving higher education. America's College Promise would provide two years of free community college for responsible students through a \$60.3 billion investment in a new federal-state partnership over the next 10 years. A \$29.7 billion investment in Pell Grants would maintain the purchasing power of this critical, need-based postsecondary grant assistance after 2017. \$200 million for an American Technical Training Fund joint effort with the U.S. Department of Labor to expand job opportunities

References: [President's FY 2016 Budget Request for the U.S. Department of Education](#)

Department of Agriculture

Research and development (R&D) efforts in the U.S. Department of Agriculture (USDA) seek to bring the benefits of discovery and innovation to the kitchen table of American families. The USDA budget request reflects four strategic goals: To assist rural communities to create prosperity so they are self-sustaining, repopulating, and economically thriving; to ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources; to help America promote agricultural production and biotechnology exports as America works to increase food security; and to ensure that all of America's children have access to safe, nutritious, and balanced meals.

Research units within USDA emphasize the following:

Agricultural Research Service (ARS): ARS is the in-house research arm of USDA and is responsible for 44% of USDA's research budget. FY 2016 priorities for ARS include the following: better management of microbes and combating antimicrobial resistance (\$17 million increase); climate change (\$19 million increase), genetic improvements and translational breeding (\$11 million increase), more competitive, sustainable small farms and beginning farmers (\$7.5 million increase), vertical farming (\$5 million requested to establish this program), and pollinator health initiative (\$7 million increase).

National Institute of Food and Agriculture (NIFA): NIFA administers the Agriculture and Food Research Initiative (AFRI), premier external agricultural research program for university research, as well as the federal/state partnership between USDA and the nation's land-grant institutions, funding to the tribal colleges, and funding for Hispanic-serving institutions. The FY 2016 budget includes a 38.5% increase for AFRI (\$450 million total budget), which prioritizes the following: global food security and hunger, water resources, sustainable bioenergy production, climate variability and change, childhood obesity prevention, food safety, and education and literacy initiative. The request for the Hatch Act, which provides capacity funds for the agricultural experiment stations based at America's land-grant colleges and universities, is level at \$244 million.

Forest Service (FS): The FS includes funding for Forest and Rangeland Research, which develops new knowledge and technology to enhance the economic and environmental value of the 193 million acres of the National Forest System. The President's FY 2016 budget proposes \$292 million for research in areas such as: Enhancing the economic and environmental value of the nation's forests, forest disturbance prediction and response, watershed management and restoration, urban natural resource stewardship, and inventory and analysis.

Reference: Allred E, Gouge EG, Maw IL. 2015. [CHAPTER NINE: Department of Agriculture](#). In AAAS report on The President's FY 2016 Budget.

Other Agencies (NIST, EPA, NOAA, USGS, VA, DOT, DHS)

National Institute of Standards and Technology (NIST): NIST is a non-regulatory agency whose mission is to “promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life.” The FY 2016 budget request would provide an increase of 29.6% to \$1.1 billion. Budget increases focus on Advanced Manufacturing, Advanced Communications, Disaster Resilience, and Cybersecurity.

Environmental Protection Agency’s (EPA): Total discretionary funding has increased by \$452 million, to \$8.6 billion. Funding will support five goals: protecting air quality and reducing greenhouse gas emissions; protecting American waters; advancing sustainable development and protecting communities that are especially vulnerable to pollution; reducing the risks of chemicals in the environment; and protecting human health and enforcing environmental laws. The Clean Power Plan is a notable priority, and will aim to reduce carbon pollution from existing power plants in order to mitigate the effects of climate change.

National Oceanic and Atmospheric Administration (NOAA): The FY 2016 budget requests \$6.0 billion for NOAA, an increase of 9.8%. Large increases are proposed for the launching and management of Earth-observing satellites, ocean acidification, climate research, and for the construction of a new ocean research vessel. Funding for the National Weather Service would stay essentially flat.

U.S. Geological Survey (USGS): The FY 2016 budget for the USGS proposes a 14 percent increase to \$1.2 billion, with increases for every mission directorate. Climate and Land Use Change would see the largest increase at 41.1%, including increases for Climate Science Centers, climate research, biological carbon monitoring and sequestration projects would receive increases, and development of next-generation Landsat satellites. Other large increases are proposed for critical minerals, conventional and unconventional oil and gas resources, renewable energy, environmental impacts of resource development, ecosystem restoration initiatives, emerging and existing invasive species, natural hazards, postdoctoral research, and support of youth in underserved communities.

Department of Veterans Affairs (VA): The President has proposed a \$168.8 billion budget for the VA in FY 2016 to “support VA goals to expand access to timely, high quality health care and benefits, continue the transformation of VA into a Veteran-centric department and end homelessness among Veterans.” VA research is organized into four main divisions: biomedical laboratory, clinical science, health services, and rehabilitation. Priorities include pain, sensory loss, spinal cord injury, women’s health, prosthetics, Gulf War illness, aging and chronic disease, post deployment health and mental health, rehabilitation, employment, “big data” and bioinformatics, and genomics.

Department of Transportation (DOT): The President's FY 2016 budget requests \$1 billion for R&D in the Department of Transportation (DOT), a 31.7 percent increase. This includes a 24.6% increase for the Federal Highway Administration (FHWA), a 33.4% increase for the Federal Aviation Administration (FAA), a 60 % increase for the Federal Railroad Administration (FRA) and a 30.2% increase for the National Highway Traffic and Safety Administration (NHTSA). NextGen-specific research within the FAA would address wake turbulence, human factors, clean aircraft technologies, and unmanned aircraft systems.

Department of Homeland Security (DHS): The FY 2016 Department of Homeland Security (DHS) Science and Technology Directorate (S&T) request totals \$779 million, a decrease of 27 percent, mainly due to the completion of major construction projects. The FY 2016 request for the University Programs PPA is \$31 million, a 22 percent reduction below FY 2015.

References: White KS, Kelly H, Spizziri S, Parkes D. 2015. [CHAPTER TWELVE: Other Selected Agencies in the FY 2016 Budget](#). In AAAS report on The President's FY 2016 Budget.

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