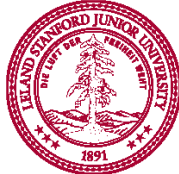




California Institute  
of Technology



Stanford University



University of  
California



University of  
Southern California

May 31, 2019

CALIFORNIA CONGRESSIONAL DELEGATION

Dear Members of Congress:

As California's Research Universities Network (CRUN), we write to urge your support for our appropriations priorities for fiscal year (FY) 2020 that allow our institutions to pursue groundbreaking research while educating the next generation workforce. We appreciate Congress recognizing the importance of research and education in the FY 2019 appropriations bills. However, in the absence of a bipartisan agreement, the deep cuts prescribed in the Budget Control Act of 2011 may return for FY2020 jeopardizing federal investments in our nation's research enterprise. If the budget caps are not addressed, non-defense discretionary will be cut \$55 billion below FY 2019 and defense discretionary funding will be cut \$71 billion below FY 2019. These cuts would severely impact necessary federal funding for research, health care and student financial aid.

We urge you to find a bipartisan compromise that averts sequestration and continues to provide robust support for federal research and education programs in FY 2020 so that our universities can continue to find solutions to energy, national security and health care challenges facing California and the nation. Further, CRUN universities are anchor institutions in their communities and are economic drivers for California. The programs outlined below leverage federal funding, along with investments by our individual institutions, to provide a strong return on investment for taxpayers as research advances spark new industries and lead to new jobs. These investments are essential if America is to stay the world leader in innovation and remain at the forefront of a global economy driven by technological advancement.

Sincerely,

Ken Hargreaves  
AVP, Strategy Implementation and  
External Relations Officer  
California Institute of Technology

David Brown  
Associate Senior VP, Federal Relations  
University of Southern California

Christopher Harrington  
Associate VP, Federal Governmental  
Relations  
University of California System

Ryan Adesnik  
Associate VP for Government Relations  
Stanford University

## **BUDGET AND APPROPRIATIONS**

### **Labor, Health, and Human Services, Education and Related Agencies**

#### **National Institutes of Health (NIH)**

University Request: \$41.6 billion

President's Request: \$34.4 billion

FY 2019 Enacted: \$39.1 billion

California university researchers use NIH funding to perform research that produces transformative advances in disease treatments and underpins our state's vibrant life sciences sector. Every day, our scientists use NIH funding to investigate novel approaches to treating cancer, heart disease, and Alzheimer's disease, translating basic science into cures, and training the next generation of biomedical science researchers. California's academic and research institutions receive more NIH funding than any other state, totaling \$4.24 billion in 2018—making robust support paramount to the health of our people and of our economy. California's research universities also remain opposed to efforts to reduce the Facilities and Administration costs—also referred to as “indirect costs,” which are essential costs of conducting research. The federal government's longstanding recognition and payment of these costs has helped California universities build and support the required research infrastructure that has made the American research enterprise the best in the world.

#### **Department of Education, Pell Grants**

University Request: the sum necessary allowing for a Maximum Award of \$6,345, including mandatory funds and scheduled inflation adjustment.

President's Request: \$22.48 billion for the discretionary base, allowing for a Maximum Award of \$6,195, this excludes a scheduled inflation adjustment.

FY 2019 Enacted: \$22.48 billion the discretionary base, allowing for a Maximum Award of \$6,195, including mandatory funds and scheduled inflation adjustment.

The Pell Grant program is a foundational component of the network of federal, state, and institutional financial assistance programs that help students finance their total cost of attendance. With this in mind, California's research universities support an appropriation sufficient to fund a maximum Pell Grant of \$6,345 for FY 2020. This appropriations level is essential to ensure that higher education remains accessible to our lowest income Californians.

#### **Department of Education, Graduate Assistance in Areas of National Need (GAANN)**

University Request: \$48 million

President's Request: \$0

FY 2019 Enacted: \$23 million

The Department of Education's graduate education program allows California universities to support the next generation of highly-skilled scientists and leaders in government and business. Because of this support, California universities can maintain top-level talent who will become vital members of the workforce with the skills California's top employers are seeking.

## **Defense**

### **Department of Defense (DoD) Basic Research (6.1)**

University Request: \$2.77 billion

President's Request: \$2.32 billion

FY 2019 Enacted: \$2.62 billion

While there are pressures to fund current operations, DoD must invest in basic research that will lead to tomorrow's technologies which will advance our national security and related technological goals. California research universities support the growth of basic research (6.1) programs to a total of \$2.77 billion. These programs will help ensure that the military becomes more agile and technologically capable as total manpower declines. Within these amounts, California's research universities support sustained funding for the Defense Advanced Research Projects Agency (DARPA), whose high-risk, high-reward research is a critical component of the military's plan to rely more heavily on technology to combat evolving future threats, at \$3.63 billion.

## **Energy and Water Appropriations**

### **Department of Energy (DOE), Office of Science**

University Request: \$7 billion

President's Request: \$5.5 billion

FY 2019 Enacted: \$6.585 billion

The DOE Office of Science provides the majority of the nation's funding for research in the physical sciences, but federal spending constraints have hindered its capability to advance world-class research. Approval of our requested funding of \$7 billion for FY 2020 would help reverse this trend. DOE's Office of Science supports 10 national laboratories, including California's SLAC National Accelerator Laboratory (SLAC) and Lawrence Berkeley National Laboratory (Berkeley Labs). Both SLAC and Berkeley Labs are managed by California universities and partner with universities throughout the country to perform groundbreaking basic science research. DOE's Office of Science also supports several Energy Frontier Research Centers (EFRCs) and a DOE Energy Innovation Hub in our state, which work to accelerate energy discoveries in high-priority areas. The research, technology development, and innovation supported by the DOE Office of Science greatly benefits the nation and supports extensive research efforts in California.

## **Commerce, Justice, Science and Related Agencies**

### **National Aeronautics and Space Administration (NASA) Science**

University Request: \$7.5 billion

President's Request: \$6.304 billion

FY 2019 Enacted: \$6.905 billion

NASA Science allows us to explore the Earth, our galaxy, and universe, as well as to train undergraduate and graduate students who will become our nation's next generation of leaders in STEM fields. Funding from NASA Science has led to discoveries about the Earth's ecology, the development of new technologies, and even discoveries by the Curiosity and Opportunity rovers regarding conditions on Mars as once favorable for life. California's research universities

are appreciative of the support provided by Congress last year for NASA Science and strongly support a balanced Science portfolio in FY 2020 that includes robust funding for all of the Science divisions. California's research universities additionally support the priorities in the decadal surveys for Earth Science, Heliophysics, Planetary Science, and Astrophysics and urge NASA to implement these recommendations.

### **National Science Foundation (NSF)**

University Request: \$9 billion  
President's Request: \$7.1 billion  
FY 2019 Enacted: \$8.075 billion

NSF is the government's primary funder of basic research, supporting work that has the potential to foster breakthrough discoveries across all scientific disciplines. The agency also supports work that brings together researchers from areas as diverse as engineering and chemistry to pursue solutions at the nexus of multiple scientific disciplines. NSF supports pre-competitive basic research that is not funded anywhere else and remains the cornerstone of the U.S. scientific enterprise. Funding of \$9 billion in FY 2020 would ensure NSF continues to provide opportunities for California university researchers to develop new innovations and lead the world in science. Within NSF, the California universities support robust funding above FY 2019 for the Major Research Equipment and Facilities Construction account, which is responsible for our nation's next generation large scientific facilities and instrumentation.

### **Interior, Environment and Related Agencies**

#### **National Endowment for the Humanities (NEH)**

University Request: \$167.5 million  
President's Request: \$38 million  
FY 2019 Enacted: \$155 million

NEH provides support for humanities and social science research in California. Programs supported by NEH provide students with opportunities to learn about American history, democracy, and culture, and fund important research on these topics. A population well-versed in the humanities is fundamental to a strong democracy.

### **Additional California Research Universities FY 2020 Appropriations Priorities**

#### **Commerce, Justice, Science and Related Agencies**

##### **National Aeronautics and Space Administration (NASA) Space Technology**

University Request: \$973 million  
President's Request: \$0  
FY 2019 Enacted: \$926.9 million

The NASA Space Technology program supports training and research into innovative technologies that sustain the United States as a global leader in space and aeronautics research. California benefits disproportionately from this program through our universities,

small businesses, and three NASA laboratories. The California research universities oppose the Administration's proposal to fold the Space Technology programs into two new portfolios. This directorate, established in 2014, undergirds and enables more effective, safe, and affordable next-generation space missions through investments which span the technology-readiness pipeline. Space Technology supports active research grants and graduate fellowships at each of our universities through work in areas including nanotechnology, thermal management systems, and space power and energy storage that will help define the 21<sup>st</sup> century NASA.

### **National Aeronautics and Space Administration (NASA) Space Grant College and Fellowship Program**

University Request: \$50 million

President's Request: \$0

FY 2019 Enacted: \$44 million

The Space Grant program is a vital part of NASA's Education portfolio and an important component of our nation's STEM support strategy. It connects NASA science with our nation's elementary and secondary schools. California's research universities play a prominent role in this national network, training aerospace and other STEM-field engineers, providing college-level fellowships and scholarships, and contributing to K-12 curriculum development. The California Space Grant Consortium is the nation's largest, involving 28 institutions that reach over 1,200 college-level students each year, in addition to their K-12 outreach throughout the state.

### **National Oceanographic and Atmospheric Administration (NOAA) Office of Oceanic and Atmospheric Research (OAR)**

University Request: \$556 million

President's Request: \$309 million

FY 2019 Enacted: \$525.06 million

California research universities rely on NOAA competitive research funding for the collection of climate, weather and water data, including ocean observing for accurate weather forecasting, which is essential to California agriculture, energy and fisheries. California research universities also contribute to national priorities for world-class weather, atmospheric, water and drought research and observations that are vital for effective disaster preparedness, as well as the mission needs of the U.S. Navy, NASA and other federal agencies.

### **National Oceanographic and Atmospheric Administration (NOAA) Sea Grant College Program**

*University Request: \$85 million*

*President's Request: \$0*

*FY 2019 Enacted: \$68 million*

Through NOAA's National Sea Grant College Program (Sea Grant), researchers support the health and resilience of the nation's coastal communities, producing quantifiable economic, social, and environmental benefits at every level of society. Based on a federal-state partnership model, grant recipients leverage the unique challenges and opportunities in coastal communities and campuses to better engage in commerce and recreation, and to improve the quality of life in coastal regions. California's coastline extends over 800 miles, presenting unique

challenges related to invasive aquatic species, water pollution issues, sustainable coastal development, maritime security, and port development. Sea Grant recipients enhance the practical use and conservation of coastal and marine resources through scientific research, education, and extension. Each of our universities has successfully competed for funding through this program.

## **Energy and Water Development and Related Agencies**

### **Advanced Research Projects Agency-Energy (ARPA-E)**

University Request: \$400 million

President's Request: \$0

FY 2019 Enacted: \$366 million

ARPA-E supports pre-competitive, high-risk research into technologies with the potential to revolutionize our energy portfolio. Institutions across California and the nation use ARPA-E funding to develop new clean energy technologies at a stage before industry will finance them. ARPA-E provides initial support for projects before they are viable for the private sector—many eventually receive significant private investments. Work supported by ARPA-E not only promotes our energy security but has the potential to stimulate economic competitiveness.

## **Interior, Environment and Related Agencies**

### **USGS, Earthquake Hazard Program**

University Request: \$85.9 million

President's Request: \$64.3 million

FY 2019 Enacted: \$83.4 million

Of all natural hazards, earthquakes pose the greatest risk for inflicting a catastrophe as over 75 million people live in metropolitan areas with significant earthquake risk. These areas are not limited to just California, but also include the Mississippi River area, Pacific Northwest, Alaska, Hawaii, Mountain West, and the Mid-Atlantic. The need for earthquake preparedness, monitoring tools, and early warning technologies, has never been greater. California universities benefit from having very strong partnerships with USGS's Earthquake Hazards Program, which allows for the research and monitoring tools needed to protect lives and property. The requested increase in funding for FY 2020 is needed to develop and operate an earthquake early warning (EEW) system for the West Coast (California, Oregon, Washington). FY 2019 funding was crucial to further the system and support the start of public alerting. In FY 2020, an increase is necessary given current USGS plans to advance to a fully operational warning system to help save lives and critical infrastructure. California universities collaborate with USGS and the state of California on the Advanced National Seismic Network (ANSS), which provides accurate and timely earthquake information.

## **Labor, Health, and Human Services, Education and Related Agencies**

### **Department of Education, Institute of Education Sciences (IES)**

University Request: \$670 million

President's Request: \$521.6 million

FY 2019 Enacted: \$615 million

Through IES funding, California universities are able to research how students learn, how best to train new teachers, and how to enhance our education system. Competitively-awarded grants lead to research findings that enable us to provide parents and teachers with the best information on how to engage students, from early childhood to adult education. IES-supported research is essential to utilizing evidence-based practices to improve the quality of education in the United States.

**Department of Education, International Education and Foreign Language Studies (Title VI)**

University Request: \$106 million

President's Request: \$0

FY 2019 Enacted: \$72.2 million

Federal support for international experience and foreign language training are important in an increasingly global economy. To date, our nation has achieved this through federally-funded international education, foreign language, and area studies programs, along with the Fulbright-Hays program. Participants in the Department of Education's international programs, including students at California universities, are better prepared to thrive in the modern workforce and compete in the global marketplace.

**Health Resources and Services Administration (HRSA)—Health Professions Workforce Funding—Title VII and Title VIII**

University Request: \$690 million

President's Request: \$199.6 million

FY 2019 Enacted: \$641.7 million

With many of the country's top-ranked academic medical centers and health science schools located at our campuses, our universities depend upon robust federal investment in health professions programs. Statistics demonstrate that a large share of the physicians who receive Health Resources and Services Administration (HRSA) funding to join the National Health Service Corps and practice in underserved areas in exchange for assistance paying off their medical school debt continue practicing medicine in these areas long after their HRSA obligations are fulfilled. HRSA health professions workforce funding fosters health care access in underserved geographic areas with many vulnerable patient populations by encouraging physicians and nurses to establish medical practices in these areas in return for defraying their student debt. The administration requests steep cuts to both HRSA Title VII and Title VIII health professions workforce programs' discretionary funding. If the administration's budget request were to be enacted into law, funding for Title VII programs that serve physicians would diminish by 73 percent, most Title VIII nursing workforce development programs would be eliminated, and funding of the remaining NURSE Corps Scholarship and Loan Repayment programs would be funded at a diminished level of \$83 million in FY 2020, as compared to the FY 2019 enacted level of nearly \$87.1 million.