To: Massachusetts Delegation Legislative Directors, Education LAs and Science LAs

From: **Boston University** – Jennifer Grodsky and Emily Burlij, Federal Relations
Harvard University – Suzanne Day, Kara Haas, and Peter DeYoe, Office of Federal Relations
Massachusetts Institute of Technology – David Goldston, Philip Lippel, and Kate Stoll, Washington Office

Date: February 28, 2020

Re: FY 2021 Programmatic Requests for Federal Science and Education Agencies

Please find attached information on fiscal year (FY) 2021 priorities for Massachusetts's research universities to support your programmatic requests to the Appropriations Committee. We appreciate the strong support for research and education among our delegation, and we are happy to provide further information or assistance as required.

As the FY 2021 appropriations process begins, we encourage Congress to build upon the strong funding for student aid and federal research programs in FY 2020. As you know, federal support for these programs enable Massachusetts' research universities to lead the way in scientific discovery and educating future leaders. This in turn attracts private investment and contributes to the vibrant economy of Massachusetts. This ecosystem of innovation depends upon robust, sustainable investment by Congress in research and higher education.

To ensure the U.S. remains a leader in knowledge creation, technology development, and innovation and to address issues of national importance, we urge Congress to continue to make research and higher education top priorities in the FY 2021 appropriations process by enacting strong funding levels.

Thank you for considering these requests, for your ongoing advocacy for research and education, and for your support of Massachusetts research universities.

LABOR, HEALTH, AND HUMAN SERVICES, EDUCATION AND RELATED AGENCIES

National Institutes of Health (NIH)
FY 2021 Request: $44.7 billion
FY 2020 level: $41.7 billion
Dear Colleague: Circulated by Reps. Susan Davis (D-CA), David McKinley (R-WA), André Carson (D-IN), and Peter King (R-NY); Contact William Seabrook (Davis) or Katie Brown (McKinley) by March 6th - https://tinyurl.com/sdkgh97
Dear Colleague: Generally circulated by Sen. Bob Casey (D-PA)

Massachusetts institutions received over $3 billion in funding from NIH in FY 2019. Our researchers are making discoveries to advance treatments and cures for diseases such as cancer, Alzheimer's disease, and mental health disorders. NIH also provides irreplaceable training support to early career biomedical researchers at our institutions; this support must be sustained so as not to disrupt the research workforce pipeline.

Department of Education, Pell Grants
FY 2021 Request: At least $7,000 Maximum Discretionary Award
FY 2020 Enacted: $6,345 Maximum Discretionary Award

The Pell Grant program is the foundation of federal student aid, helping approximately 125,000 students attend college in Massachusetts. Our universities build on the foundation provided by Pell by supplementing federal aid with our own institutional financial aid. As a result, we can maintain affordability and outstanding educational quality.

Department of Education, Federal Work Study (FWS)
FY 2021 Request: $1.467 billion
FY 2020 Enacted: $1.18 billion
Dear Colleague: Generally circulated by Sen. Gillibrand

FWS helps student succeed in college and prepare for the world of work. Massachusetts universities participate in campus-based student aid programs at a very high level, with more than 25,000 Massachusetts students receiving FWS in the 2018-19 academic year.

Department of Education, Supplemental Education Opportunity Grant (SEOG)
FY 2021 Request: $1.052 billion
FY 2020 Enacted: $865 million
Dear Colleague: Generally circulated by Sen. Gillibrand

Campus-based student aid programs help students by leveraging federal dollars with universities' own aid. SEOG awards are available to students with "exceptional need." More than 43,000 Massachusetts students receive SEOG.

Department of Education, Institute for Education Sciences
FY 2021 Request: $670 million
FY 2020 Enacted: $623 million
Dear Colleague: Circulated by Reps. Bonamici (D-OR) and Huffman (D-CA); Contact Jessica Bowen (Bonamici) or Jordan Sciascia (Huffman) by March 5th - https://tinyurl.com/vyt3c4u
Dear Colleague: Generally circulated by Sen. Schatz (D-HI)

Investing in peer-reviewed education research activities at the Institute of Education Sciences results in innovations in both teaching and learning, improving classrooms around the nation. IES is the only federal agency exclusively devoted to funding educational research. Only 1 in 10 IES applications is currently funded, leaving important education research questions unanswered.

Department of Education, International Education and Foreign Language
FY 2021 Request: $106 million
FY 2020 Enacted: $76 million
Dear Colleague: Circulated by Reps. David Price (D-NC) and Don Young (R-AK); Contact Nora Blalock (Price) or Alex Ortiz (Young) by March 9th
Dear Colleague: Generally circulated by Sen. Schatz (D-HI)

The Title VI/ Fulbright-Hays International Education and Foreign Language programs support training in critical foreign languages, educational outreach activities for K-12 schools, and curriculum development for the multidisciplinary study of regions around the world, including Africa and the Middle East. In an increasingly interconnected world, these international education programs are an essential means for Massachusetts to develop a globally fluent citizenry.

Department of Education, Graduate Assistance in Areas of National Need (GAANN)
FY 2021 Request: $35 million
FY 2020 Enacted: $23 million

GAANN fellowships provide financial support for Massachusetts graduate students pursuing doctoral education in fields that are critical to national priorities, including: biology; chemistry; computer and information sciences; engineering; mathematics; nursing; physics; and educational assessment, evaluation and research. Our request is the program's authorized level.

Institute of Museum and Library Services (IMLS)
FY 2021 Request: $206 million for Libraries and $42.7 million for Museums
FY 2020 Enacted: $195 million for Libraries and $38.5 million for Museums

IMLS is the primary source of federal funding for the nation's museums and libraries, including many in Massachusetts, and this request builds on recently authorized levels for the agency. Through grants and local programs, the IMLS supports education, preservation, digitization, and many more programs to enrich the community. In 2019, the IMLS provided $6.3 million in grants straight to the Commonwealth.

COMMERCE, JUSTICE, SCIENCE AND RELATED AGENCIES

National Science Foundation (NSF)
FY 2021 Request: at least $9 billion
FY 2020 Enacted: $8.3 billion
Dear Colleague: Generally circulated by Reps. G.K. Butterfield (D-NC) and David McKinley (R-WV)
Dear Colleague: Generally circulated by Sen. Ed Markey (D-MA)

NSF is the federal government's primary funder of basic research, supporting work across scientific disciplines with the potential to foster breakthrough discoveries. In FY 2019, NSF made more than 820 awards totaling approximately $550 million to over 100 institutions in Massachusetts. NSF makes awards based on intellectual merit and broader societal impact, through a proven system of peer review. Our institutions request increases to allow the agency to fund additional meritorious proposals across all its research directorates as well as the directorate for education and human resources.

National Aeronautics and Space Administration (NASA) Science account
FY 2021 Request: $7.25 billion
FY 2020 Enacted: $7.14 billion

NASA is a key federal contributor to advancing research in the physical sciences on Earth and in space, Massachusetts institutions continue to play key roles in major NASA missions, and researchers largely seek funding through the Science Mission Directorate's pool of grants that support research using data from these and other missions. This funding – divided across the Directorate's four discipline-specific Divisions and the Space Grant Program to encourage space education – collectively comprises the bulk of NASA research at our universities.

National Aeronautics and Space Administration (NASA) Space Technology
FY 2021 Request: $1.578 billion
FY 2020 Enacted: $1.1 billion

NASA Space Technology develops innovative tools and invests in cutting edge technology development that support some of the best minds in science. Moreover, it funds fellowship programs to support the next generation of innovators on Massachusetts campuses.

National Oceanographic and Atmospheric Administration (NOAA) Office of Oceanic and Atmospheric Research (OAR)
FY 2021 Request: $592 million
FY 2020 Enacted: $548 million

The Office of Oceanic and Atmospheric Research (OAR) provides the research foundation for answering scientific questions and infrastructure challenges related to ocean research. The OAR increases the effectiveness of observations, monitoring, and modeling to help states manage their infrastructure aquaculture and water resources, fisheries, as well as natural disaster planning and response approaches.

DEFENSE

Department of Defense (DOD) Basic (6.1) Research
FY 2021 Request: $2.76 billion
FY 2020 Enacted: $2.6 billion

Within the DOD basic research (6.1) program, our institutions support sustained funding for critical programs such as the Multidisciplinary University Research Initiative, which supports teams of faculty conducting research in high priority fields that cross typical scientific disciplines, and the National Defense Science and Engineering Graduate Fellowships program, which provides fellowships for doctoral students pursuing a degree of interest to the DOD. We urge Congress to restore the Minerva Initiative, the Department's premier social science research program that deepens understanding of the social, cultural, and political forces affecting areas of strategic importance to the U.S. Absent Congressional intervention, the Trump Administration will eliminate Minerva.

Defense Advanced Research Projects Agency (DARPA)
FY 2021 Request: $3.665 billion
FY 2020 Enacted: $3.566 billion

The Defense Advanced Research Projects Agency (DARPA) funds high-risk, high-reward research that can lead to innovative applications for the warfighter. DARPA is known for its willingness to fund ambitious research, leading to game changing technologies such as GPS and the Internet.

ENERGY AND WATER DEVELOPMENT AND RELATED AGENCIES

Department of Energy (DOE) Office of Science
FY 2021 Request: $7.4 billion
FY 2020 Enacted: $7 billion
Dear Colleague: Circulated by Reps. Bill Foster (D-IL), Lee Zeldin (R-NY), Ben Ray Luján (D-NM), and Randy Weber (R-TX); Contact Todd Ringler (Luján), Sarah Talmage (Zeldin), Merit Schumaker (Foster), or Erica Lefaive (Weber) by March 12th - https://tinyurl.com/w47su45

The DOE Office of Science is a key funder of discovery-based and use-inspired basic research in fields including physics, chemistry, materials science, environmental science, advanced scientific computing, biology, and applied mathematics. Massachusetts universities and scientific organizations received more than $73 million in DOE Office of Science funding in fiscal year 2019, with major awards from every part of the Office. Massachusetts scientists also take advantage of world-class user facilities at ten DOE National Laboratories funded through the Office of Science.

DOE Advanced Research Projects Agency-Energy
FY 2021 Request: At least $450 million
FY 2020 Enacted: $425 million

ARPA-E supports early-stage energy technologies with transformational potential in order to lessen our reliance on energy imports, reduce energy-related emissions such as greenhouse gases, and improve energy efficiency. The full request would allow the agency to hold competitions in 7 or 8 new areas as well as an open-topic competition. Twenty awards are currently being executed by Massachusetts' teams, including some at each of our universities and several at affiliated companies. Fifty-four Massachusetts awardees have already completed their ARPA-E projects. We estimate ARPA-E has provided well over $250 million in federal funding for advanced energy technology development in the Commonwealth.

DOE Office of Energy Efficiency and Renewable Energy
FY 2021 Request: at least $3 billion
FY 2020 Enacted: $2.85 billion

The Office of Energy Efficiency and Renewable Energy funds research, development, and implementation programs aimed at improving the energy efficiency of homes, buildings, and industrial processes (including five ManufacturingUSA Institutes with Massachusetts members); developing clean and efficient new vehicles and transportation systems; and developing affordable renewable energy technologies such as wind, solar, and geothermal. Massachusetts universities and companies working towards a low-carbon energy future received over $50 in FY 2019, helping to make Massachusetts and New England leaders in the clean energy revolution.

INTERIOR, ENVIRONMENT AND RELATED AGENCIES

National Endowment for the Humanities (NEH)
FY 2021 Request: $170 million
FY 2020 Enacted: $162 million
Dear Colleague: Circulated by Reps. Price (D-NC) and Stivers (R-OH); Contact Leigh Whittaker (Price) or Mimi Bair (Stivers) by March 13 - https://tinyurl.com/wusxv7e

NEH provides support for humanities research, such as history, preserving endangered languages and cultures, and literature. NEH programs stimulate creativity and innovation, helping us better understand social and international dimensions of complex questions.

National Endowment for the Arts (NEA)
FY 2021 Request: $170 million
FY 2020 Enacted: $162 million

NEA provides support for Americans to participate in and engage with the arts across a wide variety of media and programs, including exhibits, concerts, readings, and other performances. This commitment to the arts—through state, local, and public-private partnerships—shares the benefits of these programs with every district in every state.

Environmental Protection Agency (EPA) Science and Technology
FY 2021 Request: $760 million
FY 2020 Enacted: $716 million

EPA's Science and Technology (S&T) programs provide the foundation for credible decision-making to safeguard human health and ecosystems from environmental pollutants. EPA supports research in a number of areas, including air quality, chemical safety, climate change, water and homeland security, among others. The agency's budget – including the budget for its S&T programs – has steadily eroded over the past decade. As a consequence, EPA is now in the preliminary stages of consolidating some offices and functions that reportedly includes eliminating the National Center for Environmental Research (NCER), which provides extramural funding to institutions in the Commonwealth for high-quality research in exposure, effects, risk assessment and risk management. We respectfully urge Congress to begin reversing the years-long decline in EPA S&T funding and direct EPA to maintain NCER.