Informing, Inspiring, and Engaging

WASHINGTON UPDATE

As has happened in the past several years, Congress was forced to pass a Continuing Resolution in order to keep the federal government open. On the last day of the fiscal year, Congress passed a CR that enables federal agencies to operate at last year’s budget levels until December 11, 2015, and maintains the existing spending cap put in place by the Budget Control Act of 2013. President Barack Obama signed the bill right after it was passed.

The short-term funding measure could buy Congressional leaders time to negotiate a new two-year budget deal. With Speaker John Boehner (R-OH) announcing that he is stepping down, some hope that a deal can be worked out before he leaves. But if that does not happen, it is possible that the federal government will remain under a CR for the rest of the fiscal year. Senate Majority Leader Mitch McConnell (R-KY) has suggested that he be preliminary budget discussions with President Obama and Speaker Boehner in September.

Both the House and Senate have already “marked-up,” or passed out of at least the subcommittee stage, all 12 of the annual appropriations bills that fund the government. All of the draft bills would adhere to the sequestration caps from the 2011 Budget Control Act and provide less funding for FY16 than the president has requested.

Some agencies, including the Departments of State, Interior, and Agriculture, as well as financial regulators, would see cuts below the enacted FY15 levels. In particular, the House and Senate draft Labor-Health and Human Services-Education bills (which fund the NIH and Education Department) would cut between $2 billion and $3.6 billion from these agencies. However, both draft bills would increase NIH funding by $1 billion to $2 billion.

As a result, the president has threatened to veto all of the appropriations bills that have passed the House to date. Negotiations are needed to develop a new budget package that a majority in Congress and the White House can support.

Momentum in the environmental health sciences and engineering at Northeastern continues to accelerate with the establishment this fall of a second national research center devoted to studying the health impacts of pollution in Puerto Rico.

The Center for Research on Early Childhood Exposure and Development (known as CRECCE, which translates to “grow” in Spanish) will study how exposure to pollutants and psychosocial risk factors affect the health and development of children living on the island’s heavily contaminated northern coast. The National Institutes of Health and Environmental Protection Agency awarded the center a four-year grant.

Puerto Rico is home to more than 200 hazardous waste sites and high levels of air pollution. Preterm birth rates is among the highest in the world, and the region’s children suffer disproportionately from obesity, autism, and asthma.

Since 2010, investigators with Northeastern’s PROTECT Center have been devoting the environmental contributors to this public health crisis, with funding through the NIH’s National Institute of Environmental Health Sciences. Superfund Research Program PROTECT (an acronym for Puerto Rico Testsite for Exploring Contamination Threats) is following a cohort of 1,000 pregnant Puerto Rican women through childbirth, exploring whether exposure to environmental contaminants and chemicals has contributed to the island’s grim preterm birth rates.

Their work has revealed extensive groundwater contamination and elevated levels of suspect chemicals among those women and potential chemical mechanisms that stimulate pre-term birth, the second leading cause of death worldwide in children under the age of 5.

The CRECCE team will follow a group of 600 children whose prenatal exposure was documented in the PROTECT study, tracking them from birth to age 4, to investigate how exposure to multiple pollutants can affect a child’s health and development, and how psychosocial and socioeconomic factors might modify the effects of these exposures.

The new center leverages the extensive data being generated by PROTECT, as well as its interdisciplinary structure. Both centers—which include Northeastern, the University of Michigan, the University of Puerto Rico—and the University of Puerto Rico—are co-directed by Akram Alshawaabkeh, the George A. Snell Professor of Engineering and an expert in geoenvironmental engineering, and Jose F. Cordero, the Pati Distinquished Professor on Public Health at the University of Georgia.

The CRECCE team at Northeastern includes April Gu, associate professor of civil and environmental engineering; professors Helen Suh, Justin Manjourides, and Emily Zimmerman from the Bouve College of Health Sciences; and Phil Brown, University Distinquished Professor of Sociology and Health Sciences and director of the Social Science Environmental Health Research Institute.

CRECCE team (from left to right): April Gu, Akram Alshawaabkeh, Phil Brown, Emily Zimmerman, Justin Manjourides, Helen Suh

SECOND ENVIRONMENTAL HEALTH CENTER GRANT AWARDED

RELATED AWARDS

National Institute of Environmental Health Sciences R24: “Research Opportunities for Undergraduates: Training in Environmental Health,” Co-PIs, Akshawakeh and Suh

Designed to increase the pool of scientists from under-represented backgrounds engaged in environmental health research

National Institute of Environmental Health Sciences T32, “Transdisciplinary Training at the Intersection of Environmental Health and Social Science,” PI, Brown

A collaboration between Northeastern and the Silent Spring Institute to prepare doctoral students and postdocs to be future leaders in social science-environmental health science collaborations.

National Science Foundation BIG DATA: “Exploring Analysis of Environment and Health through Multiple Alternative Clustering,” PI, Jennifer Dy, associate professor of electrical and computer engineering

Developing new approaches to better understand patterns and relationships in PROTECT datasets through data visualization and alternative clustering methods

INFORMING, INSPIRING, AND ENGAGING

Fall 2015 Vol 6, No 1

From the Office of the Senior Vice Provost for Research

RESEARCH CONNECTIONS AT NORTHEASTERN

SELECTED FUNDED PROJECTS

Director Isaacowitz’s 5-year, $1.2 million project, “Power, Preference and Effectiveness,” has received funding from the National Science Foundation.

Eleni Ekon, assistant professor of chemical engineering, has received an NIH Mentored Research Scientist Career Development Award to conduct research focused on atherosclerosis, the underlying cause of the majority of heart attacks, strokes, and arrhythmias, which is caused by the blood vessel wall’s coating promotes vascular health when intact or leads to atherosclerosis when it is degraded.

Assistant Professor of Communication Studies Meryl Alper is part of a multi-million dollar research initiative funded by the United States Department of Education. “Superhero School: Harnessing the Power of Science, Literacy, and Media,” uses the power of storytelling and interactive media to engage the target audience—children ages 5 to 8 from low-income families. The goal is to build the children’s knowledge of key science content, thinking skills, and vocabulary. Improve their reading and writing abilities; and provide experience in technology use.

Assistant professor Chris Riedi, who holds joint appointments in the D’Amore-Mckim School of Business and College of Computer and Information Science, has received funding from the National Science Foundation to study the structure and dynamics of Internet-based collaboration. The project seeks to gain new insights into how multidimensional network configurations shape the success of value-creation processes within crowdsourcing systems and online communities.

Associate Professor of Law and Health Sciences Lee Relefsky is partnering with colleagues from the University of California San Diego and El Colegio de la Frontera Norte in Mexico to promote prevention of HIV and other blood-borne infections. COLEF is one of Mexico’s foremost think tanks on social policy issues. With funding from the National Institutes of Health’s National Institute on Drug Abuse, the bi-national research team is working closely with the Tijuana Police Department and the National Institute of Environmental Health Sciences T32: National Institute of Environmental Health Sciences, University of North Carolina, and Silent Spring Institute to implement an innovative police-education program on HIV prevention.

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FACULTY NEWS

Y. Raymond Fu, associate professor of electrical and computer engineering and computer and information science, has been awarded the 2016 IEEE CSI Outstanding Early Career Award by the Institute of Electrical and Electronics Engineers’ Computational Intelligence Society. The award cited his contributions to neural computing, manifold learning, and visual intelligence. This competitive international award is given to just one young investigator globally each year.

Jean McGuire, professor of the practice in the Department of Health Sciences, spoke in September at a White House event celebrating the 25th anniversary of the signing of the Ryan White Comprehensive AIDS Resources Emergency Act. McGuire was serving as the executive director of the AIDS Council when the CARE Act was signed into law in 1990.

Alicia Sassar Modestino, associate professor of public policy and urban affairs and economics, has been appointed to a Massachusetts State Task Force charged with developing strategies to improve economic opportunities for those facing chronically high rates of unemployment.

Daniel Wicics, assistant professor of computer and information science, has been named general chair of the 48th Association for Computing Machinery Symposium on Theory of Computing, which will be held June 2016 in Cambridge.

Kimberly Eddleston, professor of entrepreneurship and innovation, has received the Schuice Distinguished Professor of Entrepreneurship award in recognition of her outstanding contribution to the field of entrepreneurship. Eddleston and three other professors were recognized at an Entrepreneur & Innovation Exchange conference in September.

Northeastern University
Office of Research Development

Finding research funding can be very challenging.

CHECK IT OUT

The Office of Research Development has launched a new website at northeastern.edu/resdev that will provide one-stop shopping for our research community, with the following new features:

- Funding opportunity announcements
- Custom FOA database
- Multi-disciplinary opportunities
- Special interest to the research community
- FOAs are tagged and can be sorted by subject, award type, and sponsor
- Limited submissions are found here and on the dedicated Limited Submissions tab.

Research calendar: campus-wide compilation of research-related events from department to university level, also feeds to the main research website for expanded information.

Training: Find information about upcoming workshops and handouts and materials from prior events.

Resources: Connect to searchable funding databases, proposal-writing guides, and other funding resources for specific disciplines including early career awards.

Let us know what you think, at resdev@neu.edu

UPCOMING RESEARCH EVENTS

NOVEMBER 6
Network Science Institute Ribbon-cutting Ceremony
Hosted by the College of Science
177 Huntington Avenue, 10th and 11th Floors
6 p.m. – 8 p.m.
Join President Joseph Aoun for the opening of the new Network Science Institute. This center brings together world-renowned researchers in a lab space that is highly collaborative and interdisciplinary, with the shared goal to understand systems by discovering the underlying principles, properties, and purposes that connect them.

THROUGH DECEMBER 13
Exhibition: The Multiverse of Identity, Recent Works by Favianna Rodriguez
Hosted by the College of Arts, Media and Design
Gallery 360, Eli Hall Concourse
Rarely exhibited, Favianna Rodriguez’s abstract prints are on display at Northeastern’s Gallery 360. Best known for her vibrant posters dealing with politics, migration, globalization, and women’s rights, Favianna began working with abstract figures in 2005.

THROUGH DECEMBER 2015
3D Printing Studio Basics Workshop Series
Snell Library, 2nd floor
Thursdays, 4:30 p.m. – 5:30 p.m.
Learn the process of additive manufacturing and see various technologies of 3D printing in action. Visit the Library website to learn more.

library.northeastern.edu/news-events

RESEARCH CONNECTIONS AT NORTHEASTERN
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