

15 March 2011

The Honorable Harry Reid  
Majority Leader  
United States Senate  
522 Hart Senate Office Building  
Washington, DC 20510-2803

The Honorable Mitch McConnell  
Minority Leader  
United States Senate  
361A Russell Senate Office Building  
Washington, DC 20510-1702

Dear Senators Reid and McConnell:

On behalf of the American Geophysical Union and its 61,000 members—Earth and space scientists dedicated to advancing scientific research for the benefit of humanity—we urge you to take into consideration the impact scientific research and development have on America’s global competitiveness, national security, and public health and safety as you work to complete FY 2011 appropriations. The need to reduce the national debt is real, but budget cuts cannot come at the cost of programs that keep Americans safe and build a foundation on which our economy thrives.

History shows that much of the economic growth we have enjoyed since World War II is the result of strong support for and investments in science and technology; however, from 1964 to 2004, federal government funding for research and development as a percentage of GDP declined by 60 percent. From 2001 to 2007 alone, U.S. investment declined 0.5 percent per year; in that same timeframe, China’s investment increased 5.7 percent per year. Now, according to a report from the National Academy of Sciences, American consumers spend more each year on potato chips than the U.S. government devotes to energy R&D.

Today, while scientists and engineers make up only four percent of the workforce, they disproportionately create jobs for the rest of the nation – in 2008 alone, university research was responsible for the creation of nearly 600 new companies. Despite this obvious impact on our nation’s competitiveness, the U.S. ranks 27<sup>th</sup> among developed nations in undergraduate science and engineering degrees.

That is why it was so disheartening to see the extensive cuts to scientific research and development, as well as science, technology, engineering and mathematics (STEM) education as was proposed in the FY11 long-term Continuing Resolution (H.R. 1). The same is true for the three-week C.R. currently being debated, H.J. Res. 48. In all cases, these cuts have broad impacts on the health and stability of our economy, the public, and the environment.

For example, in the long-term C.R., cuts in the National Science Foundation’s funding would have a devastating impact on some of the country’s most cutting-edge research—research that supports economic growth, public health and national security—and would impact more than 20,000 researchers, students, teachers and support personnel. Equally important, those same cuts would impact NSF’s STEM education programs, which sends a negative message to young Americans considering careers in science and technology about our commitment to enhancing the nation’s technological workforce.

Funding cuts at the Department of Energy (DOE), National Oceanic and Atmospheric Administration (NOAA), National Aeronautics and Space Administration (NASA), and Department of the Interior (DOI), including the U.S. Geological Survey (USGS), would severely limit research and innovation in areas as diverse as clean and sustainable energy, marine fisheries and coastal recreation, and climate science.

Proposed cuts to National Weather Service (NWS) funding would eliminate the first line of defense against hurricanes, tornadoes, floods, tsunamis, and droughts for as many as 30 million people. Science-based products and services provided by government agencies support and protect millions of jobs nationwide. The proposed cuts would lead to furloughs or layoffs directly affecting thousands of workers, whose lost incomes would result into a slower economic recovery for the Nation.

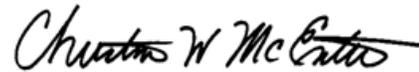
While H.R. 1 didn't pass the Senate, it remains a very real concern that such cuts will be included in other FY11 C.R.s moving forward. And, in the current three-week C.R. being proposed, cuts to NOAA funding alone represent significant challenges to the agency's natural hazards research, including the tsunami warning centers. In light of the recent tragic events in Japan, and the tsunami warnings that put much of the western coast of the United States on high alert, this is particularly concerning.

America's security, economic competitiveness, and public health depend on our commitment to invest in science and technology. As you continue to work on the FY11 appropriations, we encourage you to act strategically as you move forward, including a sustained level of support for federal funding of scientific research and development.

Sincerely,



Michael J. McPhaden, Ph.D.  
President  
American Geophysical Union



Christine W. McEntee, MHA  
Executive Director/CEO  
American Geophysical Union