

March 14, 2015

The Honorable Larry Bucshon  
Chairman, Subcommittee on Research and Technology  
Committee on Science, Space and Technology  
U.S. House of Representatives  
Washington, DC 20515

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The Honorable Daniel Lipinski  
Ranking Member, Subcommittee on Research and Technology  
Committee on Science, Space and Technology  
U.S. House of Representatives  
Washington, DC 20515

Dear Chairman Bucshon and Ranking Member Lipinski:

On behalf of the American Society of Civil Engineers (ASCE) we would like to comment on H.R. 4186, "Frontiers in Innovation, Research, Science and Technology Act of 2013" or the "FIRST Act." ASCE is pleased that the Science, Space and Technology Committee is beginning the process of reauthorizing the important programs contained in the COMPETES Act reauthorization of 2010. There are aspects of the bill that ASCE believes will be beneficial to the nation, however there are other provisions that we have serious reservations about and which prevent ASCE from supporting this legislation.

First, we pleased that the FIRST Act has a prominent focus on STEM education and would put in place a more robust system to coordinate and improve the extensive portfolio of STEM education programs operated by many different federal agencies. Specifically, ASCE supports the new function, housed within the National Science Foundation (NSF), to coordinate STEM education activities conducted across the government. Additionally, the proposed federal STEM Education Advisory Panel would provide a much-needed outlet for outside stakeholder input – especially from "on the ground" educators – that will help inform federal plans and budget priorities. We believe that both of these provisions will help improve the effectiveness of federal investments in STEM education over time.

Additionally, ASCE is pleased to see the reasonable language on public access to research articles. ASCE supports the principle of providing public access and enhancing dissemination of federally funded research in ways that advance public health and safety, and strengthen the global quality of life. At the same time, ASCE deems it essential to preserve the scholarly value of the peer-reviewed version of record, fixed at its time of presentation without any possibility of historical rewriting; that the original work cannot be altered by the author or anyone else; and that the value of added work by learned societies, acting in accordance with their educational mission, is reimbursed for the investments they make in managing the peer review process, editing, dissemination, publishing, and maintaining an ever-growing archive in perpetuity.

ASCE is concerned, however that unlike COMPETES, the proposed legislation does not establish a vision for revitalizing the nation's research and innovation enterprise. ASCE is also concerned that the legislation sets funding targets for NSF and the National Institutes of Standards and Technology that limits real growth for these agencies to stimulate long term economic prosperity. The proposed legislation does not even keep pace with inflation for these agencies, whose work is critical to our future national competitiveness.

Finally, ASCE is concerned that the proposed legislation would disrupt the peer-review method of evaluating grants by adding an unnecessary layer of review to the grant making process. ASCE strongly supports the mission of NSF and its research across all disciplines of scientific and engineering research. The U.S. research enterprise has been tremendously successful over the decades because unlike in many other countries, it has remained insulated from political pressures and interference. This success has been guided by the scientific and engineering communities through a strong system of merit review and advisory committees. We are afraid that the proposed legislation puts the nation's long history of innovation and related economic growth and improvements to the public health, safety and welfare at risk.

For the reasons stated above, ASCE cannot support the legislation as it is currently written. ASCE urges the members of the Research and Technology Subcommittee to work with the engineering and scientific communities to incorporate the positive aspects of this legislation while modifying those elements that would disrupt the innovation that have long been the source of nation's source of economic growth and prosperity

Thank you for the opportunity to present our views. Please contact Martin Hight, ASCE's Senior Manager of Government Relations at 202-789-7843 or [mhight@asce.org](mailto:mhight@asce.org) if we can be of more assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Randy Over", with a long horizontal flourish extending to the right.

Randall (Randy) S. Over, P.E., F.ASCE  
ASCE President 2014

cc. The Honorable Lamar Smith, Chairman, Committee on Science, Space and Technology  
The Honorable Eddie Bernice Johnson, Ranking Member, Committee on Science, Space and Technology