

February 11, 2022

The Honorable Charles Schumer  
Majority Leader  
United States Senate  
Washington, D.C. 20515

The Honorable Mitch McConnell  
Minority Leader  
United States Senate  
Washington, D.C. 20515

Dear Leader Schumer and Leader McConnell:

I am writing on behalf of the 150,000 members of the American Society of Civil Engineers (ASCE)<sup>1</sup> to urge Congress to finalize a comprehensive package focused on the nation's research agenda. ASCE urges swift action to conference the U.S. Innovation and Competition Act (S.1260) with the America COMPETES Act (H.R. 4521). We believe that this legislation will provide for the research needed to help create the next generation of materials and approaches to building sustainable infrastructure systems for the 21st Century. It is critical that we design for the future using innovative materials and not trying to continue using the materials, design approaches, or construction methods from a previous century.

ASCE encourages final legislation that would significantly expand funding at the National Science Foundation (NSF), the National Institute of Standards and Technology (NIST), and the Department of Energy, as well as other provisions to further the U.S. research and development enterprise. Each of these agencies is critical to the nation's research and development agenda and should be prioritized if the United States is going to remain competitive in the future. Furthermore, ASCE believes that any final, conferenced, legislation should include the creation of a new NSF directorate to focus on technology and innovation. The new directorate, as proposed in the USICA, would permit greater focus on critical research needs as well as accelerating adoption of new technologies.

Additionally, final legislation should also focus additional investments at NIST on the traditional standards setting and support work that the agency oversees. The research conducted by NIST is a crucial component of building standards such as ASCE-7, Minimum Design Loads and Associated Criteria for Buildings and Other Structures, which serve as the basis for U.S. building codes. Such building codes, when properly adopted and enforced, is the single best method for ensuring the nation's infrastructure is resilient and able to protect the public health, safety, and welfare.

Federal leadership is essential to fostering and advancing civil engineering R&D initiatives. Historically, federal R&D funding has provided a significant portion of the total U.S. civilian R&D investments. However, since the turn of the 21st century, the federal share of R&D funding has declined significantly.

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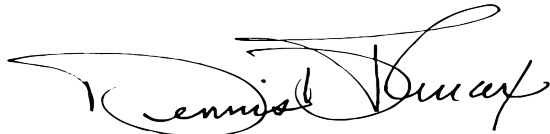
<sup>1</sup> ASCE was founded in 1852 and is the country's oldest national civil engineering organization. It represents more than 150,000 civil engineers individually in private practice, government, industry, and academia who are dedicated to the advancement of the science and profession of civil engineering. ASCE is a non-profit educational and professional society organized under Part 1.501(c) (3) of the Internal Revenue Code. [www.asce.org](http://www.asce.org),

Inadequate federal funding limits the ability to leverage the potential talents and resources across the U.S. to address pressing current, emergent, and long-term societal needs, and hinders the ability to maximize leveraging of R&D funds through government-university-industry partnerships. ASCE's [2021 Report Card for America's Infrastructure](#) rated the overall condition of the nation's infrastructure a cumulative grade of "C-" across 17 categories. The recently enacted Infrastructure Investment and Jobs Act will go a long way toward raising the grades. However, it should be coupled with a significant investment in research and development that will permit the development of new and innovative materials and processes to cut cost and facilitate a durable, secure, sustainable, and resilient infrastructure that will meet future needs and ensure the best possible infrastructure for the 21st century.

The U.S. research enterprise has been tremendously successful over the decades. This success has been guided by the scientific and engineering communities through a strong system of merit review and advisory committees, trust, and respect. ASCE supports efforts to enhance and revitalize these efforts.

We thank the Congressional Leadership for prioritizing research and development and urge the swift enactment of final legislation. ASCE stands ready to work with the Senate as it continues to ensure that the United States remains preeminent in research and development.

Sincerely,

A handwritten signature in black ink, appearing to read "Dennis D. Truax". The signature is fluid and cursive, with a large, sweeping initial "D" and "T".

Dennis D. Truax, Ph.D., P.E., DEE, D.WRE, F.ASCE  
ASCE President 2022