



National Center for
Technological Literacy®

Museum of Science, Boston

Chairman Lamar Alexander
Ranking Member Patty Murray
Committee on Health, Education, Labor and Pensions
United States Senate

April 14, 2015

Dear Chairman Alexander and Ranking Member Murray:

As you and your Senate colleagues work to markup the “Every Child Succeeds Act,” the National Center for Technological Literacy at the Museum of Science, Boston urges you to **ensure that a revised Elementary and Secondary Education Act (ESEA) emphasizes the importance of teaching and learning engineering and other STEM subjects.** While we are encouraged that the proposal maintains science assessments and includes engineering in the definition of “core academic subjects,” we hope you and your colleagues will **support the bipartisan Franken/Kirk amendment** to include support for engineering and other STEM teacher professional development in Title II of the bill.

A focus on STEM subject areas will broaden students' knowledge of our rapidly changing technological world and expose them to disciplines and skill sets that are of vital importance to our nation's workforce needs and future competitiveness. According to the Brookings Institute report titled, “The Hidden STEM Economy,” half of all available STEM-related jobs are available to workers without a four-year college degree. STEM jobs pay an average of 14% higher wages for college-educated graduates and 10% higher for those without post-secondary education. This country is facing a shortage of workers to fill such jobs in a time where our economy desperately needs to put people back to work. The need for an improved STEM workforce is well documented but few programs exist that advance K-12 engineering, computational thinking, and technological literacy.

A growing number of states, including Tennessee, Minnesota, Kansas, Kentucky, and Washington, are adopting science and engineering standards and are in need of resources to help implement these advances in their classrooms. Another important development to recognize is that community-based education organizations, such as science museums, offer content-rich professional development and should be allowed to partner with LEAs to enhance teacher skills and content knowledge in STEM fields. Therefore, it is important that the committee **adopt the Franken/Kirk STEM amendment** designed to help states utilize resources, like science centers, to provide the necessary professional development and classrooms resources to advance STEM instruction and student achievement in these areas.

If you have any questions about K-12 engineering education or the work of NCTL, please contact myself or Patti Curtis at 571.237.6367 or curtisp@mos.org.

Sincerely,

Ioannis Miaoulis
President & Director

The NCTL advocates for engineering understanding and awareness in schools, science centers, and out-of-school time experiences world-wide. Partnering with educators, nonprofit organizations, government agencies, and industry representatives, the NCTL seeks to introduce or modify state standards and assessments related to K-12 engineering education and to provide comprehensive K-12 and OST engineering curricular resources and professional development opportunities. To date, we have reached more than 81,300 teachers and 7.3 million students.