



September 30, 2015

Chairman Lamar Alexander  
Ranking Member Patty Murray  
Health, Education, Labor and Pensions Committee  
US Senate  
Washington, DC 20510

Chairman John Kline  
Ranking Member Bobby Scott  
Education and the Workforce Committee  
US House of Representatives  
Washington, DC 20515

Dear Chairman Alexander, Chairman Kline, Ranking Member Murray and Ranking Member Scott:

**On behalf of the 34,000 individual members of the Society of Women Engineers (SWE), thank you for your work to date on revising an outdated *Elementary and Secondary Education Act (ESEA)*. With a conference negotiation ahead of you, I urge you and your colleagues to negotiate a bill that promotes equity, fosters excellence and ensures that high school graduates leave K-12 education with skills and knowledge that support success in their career and academic aspirations. In particular, SWE and its 34,000 members want to ensure that an updated law maintains a commitment to STEM (science, technology, engineering and mathematics) education in elementary, middle and high schools nationwide.**

Over the last 50 years, more than half of America's sustained economic growth was created by the five percent of the workforce who create, manage, and maintain the processes and products of innovation: engineers, scientists, and advanced-degree technologists. A National Student Clearinghouse study reports that, between 2009 and 2013, attainment of science and engineering degrees grew by 19 percent, compared to only 9 percent growth among other majors—an encouraging trend. However, problematic gaps persist, since the same data show that women earned just 19 percent of total engineering degrees. SWE strongly believes that access to high-quality instruction in the STEM disciplines throughout K-12 education will increase the number of women engineers. Frankly, the challenges facing the nation in the 21<sup>st</sup> Century cannot be met if there are not more women joining their male peers in efforts to solve the country's problems, discover answers to big questions and create the innovations we don't even know we need yet.

We strongly believe that federal K-12 education policy must support STEM education. Congress, the White House, state and local educators, business and philanthropy leaders all talk publicly about the importance of STEM and STEM instruction. That message must be conveyed in a revised ESEA. **We ask that you and your colleagues ensure that a negotiated ESEA bill preserve a dedicated funding stream for STEM-related activities.**

SWE supports a provision in Title II-E of the Senate-passed *Every Child Achieves Act (S 1177)* that would provide each state with resources to focus on improving teaching and learning in STEM subjects. This provision—added to the bill via a bipartisan amendment offered during Committee consideration—would support partnerships between schools, businesses, non-profits, and institutions of higher education that would implement a wide range of STEM-focused objectives including the recruitment, retention, and professional development of educators. Additionally, this provision would expand learning opportunities both in- and outside the classroom. We know that girls and other populations underrepresented in STEM fields often are inspired by exposure to the subjects outside of traditional classroom settings—settings that often include interaction with role models from the STEM fields.

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SWE is also pleased that would-be program applicants are required to explain how their projects will ensure increased access for students who are members of groups underrepresented in STEM fields, which may include females, minority students, English learners, children with disabilities, and economically disadvantaged students. The country's STEM needs will only be met by a diverse STEM workforce. **Further, we urge you to retain the following provisions from the S 1177:**

- Title I-B (Sec. 1201(2)(H)), which allows states to integrate engineering design skills and practices into their state standards and assessments for science.
- Title II-A (Sec. 2101(c)(4)(B)(xviii) and Sec. 2103(b)(4)(P)), regarding state and local uses of funds to develop and provide professional development and instructional materials for STEM subjects.
- Title IV-B (Sec. 4205(a)(13)), which authorizes programs that build STEM skills and foster innovation in learning by supporting nontraditional STEM education teaching methods under the 21st Century Community Learning Centers grant program.
- Title IX (Sec. 9101(4)), which changes the definition of "core academic subjects" to include a number of disciplines, including "engineering".

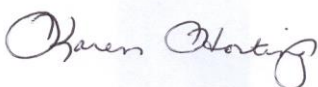
**SWE is pleased that both bills maintain current law's requirements regarding the annual testing of mathematics in grades 3-8 and the testing of science once in elementary, middle and high schools.** Using state-adopted standards and assessments in math and science in K-12 education will support high-quality instruction in these formative years.

As a country, we must refuel our STEM talent, or America could face losing its economic engine—the heart of its prosperity and security. Studies have shown that students begin to lose interest in STEM subjects as early as middle school. U.S. high school students are outperformed on international math and science tests while less than 15 percent of U.S. students possess the prerequisites to pursue scientific/technical degrees in college. If we are to continue to compete—and excel—in the global economy, we must retain a robust commitment to improving teaching and learning in STEM disciplines in K-12 schools.

Founded in 1950, SWE is a not-for-profit educational and service organization that empowers women to succeed and advance in the field of engineering, and to be recognized for their life-changing contributions as engineers and leaders. SWE is the driving force that establishes engineering as a highly desirable career for women through an exciting array of training and development programs, networking opportunities, scholarships, and outreach and advocacy activities. Ensuring the future of women in engineering includes nurturing interest and success in engineering from the earliest years.

If you or your staff have any questions about SWE's legislative goals and priorities, please do not hesitate to contact the organization's Washington, DC, representative, Della Cronin, at [dcronin@wpllc.net](mailto:dcronin@wpllc.net) or 202.349.2322. SWE thanks you for your attention to these views and looks forward to working with you and your colleagues as this process continues.

Sincerely,



Karen Horting  
Executive Director & CEO