

Dan Sayre
75 Summer Street
Kennebunk, ME 04043
Phone: (207) 613-6776

Daniel.sayre@legislature.maine.gov

HOUSE OF REPRESENTATIVES

2 STATE HOUSE STATION AUGUSTA, MAINE 04333-0002 (207) 287-1400 TTY: MAINE RELAY 711

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TESTIMONY IN SUPPORT OF:

LD 1740, An Act to Establish the Maine Science, Technology, Engineering, Arts and Mathematics Matching Grant Program

Senator Rafferty, Representative Murphy, and honorable members of the Joint Standing Committee on Education, thank you for the opportunity to present LD 1740, *An Act to Establish the Maine Science, Technology, Engineering, Arts and Mathematics Matching Grant Program.*

The Maine STEAM Matching Grant Program will provide financial support for competitive and non-competitive Science, Technology, Engineering, Arts, and Mathematics activities in educational settings, both formal and informal. These programs develop critical skills — technical, personal, and professional — that ensure that students are prepared for careers in a technology-driven economy. As articulated in strategy A of the State's 10-year plan ("growing local talent") support of these initiatives allows Maine to cultivate a well-rounded, capable, and innovative workforce that will drive economic growth. This investment is crucial for fostering long-term workforce development and economic expansion in Maine.

Studies have shown that STEAM competitions like FIRST Robotics "improved graduates' interpersonal skills such as time management, teamwork skills, and self-efficacy, as well as had an impact on the graduates' STEM career choices."

Participation in these kinds of programs builds technical skills that are in short supply across the workforce and prepares students for careers in professions like computer science and engineering, as well as skilled technical fields like precision manufacturing and mechatronics. These are careers that pay family-supporting wages.

In addition to technical skills, these programs help students develop the professional and personal skills that are most in-demand throughout the workforce, including:

1. creativity and problem-solving

¹ Rocker Yoel, S., Shwartz Asher, D., Schohet, M., & Dori, Y. J. (2020). The Effect of the FIRST Robotics Program on Its Graduates. *Robotics*, *9*(4), 84. https://doi.org/10.3390/robotics9040084

- 2. teamwork and collaboration
- 3. communication, negotiation, and leadership
- 4. Public speaking and presentation skills

The bill proposes a state investment of \$3M (over a two-year cycle) in STEAM activities as an investment in the future workforce. The funds would be administered by the Department of Education in consultation with a nonprofit organization representing and advocating for manufacturers in this State; and a nonprofit organization dedicated to providing opportunities to middle school and high school students to explore robotics in a competitive and supportive environment.

The bill directs the Department to evaluate comparable programs in other states in the development of criteria, and the application and award process. Massachusetts, Connecticut, and Minnesota already operate similar programs that I can recommend as points of comparison.

The program has been designed to spur the growth of robotics and similar hands-on programs in communities with fewer resources. Awards will provide a 3:1 match to funds raised by the participants themselves, ensuring that they have 'skin in the game' but providing much-needed leverage in getting new programs off the ground. To help spread the growth of talent in rural areas, the bill directs the Department to distribute awards equally between Maine's two congressional districts. The Department must also give preference to applications from municipalities or counties of greater socio-economic need, as measured by percentage of households below the official poverty measure, supplemental poverty measure, and ALICE households.

In summary, the STEAM Matching Grant Program aims to spark a transformational investment in the future prosperity of Maine.

Thank you for your consideration. I will be happy to answer any questions you wish to ask.