

The Joint Standing Committee on Education and Cultural Affairs
Testimony from Aileen Huang-Saad, PhD, MBA, The Roux Institute, Northeastern University

In Support Of

L.D. 1389
An Act to Establish a Mobile Learning Lab

11 April 2023

Senator Rafferty, Representative Brennan, and distinguished members of the Education and Cultural Affairs Committee, my name is Aileen Huang-Saad and I am the Director of Life Sciences, Health, and Engineering and an Associate Professor of Bioengineering at Northeastern University's Roux Institute. I am also a member of the Maine State Workforce Board, which, as you know, was created to help Maine people and businesses compete successfully in the global economy. Thank you for the opportunity to testify in support of L.D. 1389, An Act to Establish a Mobile Learning Lab.

Founded in 2020, the Roux Institute's primary mission is to help grow Maine's economy by cultivating the development of advanced technologies and building a pipeline of life sciences talent. Unique to our institution, we focus on higher education from the perspective of teaching, research, and entrepreneurship in collaboration with industry, non-profits, governmental agencies, and other partners. In doing so, we seek to decrease the gap between education and professional practice, ensuring that we develop the important talent needed to address the global societal challenges of today and the future. While the Roux's degree programs are at the graduate level, we recognize the importance of cultivating a robust K to Gray science, technology, engineering, and math (STEM) pipeline to grow talent. It is for this reason; I am here to express my strong support for this initiative.

In today's knowledge economy, it is critical to support the education of STEM talent across the nation. More importantly, it is important for students—at all levels—to understand that STEM is for all. There are multiple opportunities for everyone to engage in STEM careers, whether or not they are a high school graduate entering the workforce tomorrow or a graduate student completing their doctorate.

Today, the pipeline into STEM opportunities in Maine is very narrow. If we want to encourage more students to explore STEM careers, we as a community need to seek out new and innovative ways to reach those students without overburdening our K-12 system. This is also an equity and fairness issue. We need to make sure that hands-on STEM learning reaches students in every corner of our state—not just our urban school districts or our better-resourced suburban districts. It is for these reasons that I am most inspired by this proposal.

Science is a team sport. The complexity of today's global challenges requires individuals of all types of training and disciplines to solve our problems. But the team cannot just be across

disciplines, we also need to work as a team across the educational continuum. This proposal is the ideal demonstration of collaboration across the state while being fiscally responsible. Leveraging the experts and talent across the educational system, from K-12 educators, to non-profit education advocates, to universities, and research centers, this request supports the most important individuals in the equation, the learners. Each group brings their expertise to the project to widen Maine's STEM pipeline. The mobile lab will bring critical training and exposure in state-of-the-art equipment to the most rural parts of the state—and will do so without adding a cost burden to each individual school and educator. The proposal seeks to work in collaboration with communities, meeting the students, their families, and communities where they work and live.

We are at an exciting time in history. Biotechnology development has offered incredible opportunities across all sectors, from human health to agriculture. The most impactful innovations often come from problems looking for solutions. But to be able to cultivate those solutions, we need to make sure our future talent knows how to engage in the new tools being developed. This starts by engaging our young Mainers—and particularly rural Mainers—in STEM. It is initiatives like the mobile learning lab by which we will also ensure that the promise of jobs and prosperity offered by careers in the life sciences and other STEM fields are more equitably shared beyond Portland so that these opportunities reach every corner and community of our state.

The Roux Institute believes that advances in the life sciences is a high growth area, as demonstrated by the growth of the international bioeconomy. It is critical that we make sure ALL Mainers will be a part of this growth and this starts with our students. At the Roux, we are committed to working in partnership with community members all across the State to continue to grow the STEM pipeline.

Thank you again for the opportunity to testify today. I urge the Committee to favorably response to LD1389.

Sincerely,

Aileen Huang-Saad, PhD, MBA
Director of Life Sciences, Health, and Engineering
Associate Professor of Bioengineering
The Roux Institute
Northeastern University