



Wednesday, February 17, 2021

To: The Joint Standing Committee on Education and Cultural Affairs Testimony from Rhonda Tate, STEM Education Specialist, Maine Mathematics and Science Alliance (MMSA)

In Support Of: L.D. 127 "Resolve, To Establish a Pilot Program To Provide Grants for Professional Development in Computer Science Instruction"

Senator Daughtry, Representative Brennan, distinguished members of the Education and Cultural Affairs Committee, my name is Rhonda Tate and I am a STEM Education Specialist at the Maine Mathematics and Science Alliance where I have worked for the past two years on finding opportunities, providing support, and growing a network for teachers in Maine to experiment with, integrate, and implement computer science practices and principles into their classroom. Prior to my work at MMSA, I was a classroom teacher in eastern Maine for 15 years. I add this bit to bring some credibility to my testimony because, to be honest, the most compelling testimony you will hear today should be from the educator's themselves and I hope that their voices will be heard either through live testimony or through submitted remarks.

I would like to thank you for the opportunity to testify in support of L.D. 127. The need for professional development in education is always very, very, real but the need for professional development in the world of computer science education is, at this current time, critical.

On a recent Saturday, a group of teachers, researchers, and industry leaders met virtually for a conference. Teachers working on a Saturday is not, in and of itself, remarkable. Teachers working on Saturday in the midst of a pandemic and political unrest should be, at least a little, remarkable. One wonders what drives educators to use their time off for professional learning while reports of widespread teacher burnout abound. The answer, at least for *these* teachers on *this* Saturday, lies within the topic itself. **On an afternoon in early January, hundreds of teachers gathered to learn about the future of Computer Science (CS) education.** While experts and researchers from all disciplines host forward-thinking workshops and conferences, this one was particularly telling about the challenges faced by teachers of CS. The future of CS education is not some distant thought - it is *now*. The rapid evolution of technology has meant that the specific tools that teachers may have learned about in pre-service programs a decade ago (*if* they did any preparation at all for CS) have changed significantly along with the infusion and application of CS in environments around them. CS education, and the professional learning that supports it, must be continuously evolving in partnership with learners, educators, and representatives from local businesses in order in order to stay rigorous and relevant.

While these trailblazing teachers were in attendance (and there were a few from Maine) - the more compelling image are those teachers that were NOT in attendance. Either because of lack of time, money, or even just *knowing* about the workshop - the fact is that very few Maine teachers are accessing professional development for CS. Couple this with the very limited preparation (if any) Maine teachers

have to teach CS and you have a recipe for Maine students missing a critical component of the rapidly shifting expectations of learning in the 21st century.

The bill in front of you aims to prevent this inequity - by targeting funds specifically for professional development in CS across the K-12 pipeline. While it is true that all areas of education require ongoing professional development, we strongly urge you to consider the unique characteristics of CS and why there is a critical need - *now* - for targeted funds for CS professional development:

1. The majority of Maine teachers that are currently teaching CS are teaching out of their field of expertise.
2. Research shows that CS should be introduced in K-8 - which requires an even more concentrated lift of professional development - navigating the waters of integration into core subject areas with a teaching workforce with no background in CS at all.
3. While the core practices and principles of CS may not change - the platforms and products shift at a pace unparalleled in education. Even the most prepared CS teacher needs to be undergoing nearly constant professional development to remain on top of the content alone.

With the creation of unique, higher ed, opportunities like the Roux Institute we are seeing more and more high-paying, career opportunities in our state. What we are NOT seeing, however is a workforce prepared for these jobs. A critical component in building this workforce is developing capable, confident, and inspired teachers. We strongly urge you to pass this legislation as a step toward achieving CS for all Maine students.

Thank you,

Rhonda Tate
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