

State of Maine
STATE BOARD OF EDUCATION

Testimony of Wilson G. Hess, Chairman of the State Board of Education

In Support of: L.D. 295

An Act To Authorize a General Fund Bond Issue To Increase Rural Maine's Access to
Broadband Internet Service

Before the Joint Standing Committee on Appropriations and Financial Affairs

Sponsored by: Representative Berry

Co-Sponsored by President Jackson, Speaker Gideon, Senators Bellows, Dow, Lawrence, and
Woodsome, and Representatives Hanley, Higgins, and Skolfield

Date: February 19, 2019

Senator Breen, Representative Gattine, and Members of the Joint Standing Committee on
Appropriations and Financial Affairs:

My name is Wilson Hess, I am the Chair of the State Board of Education and I am here today on
behalf of the State Board to speak in support of L.D. 295 An Act To Authorize a General Fund
Bond Issue To Increase Rural Maine's Access to Broadband Internet Service

The State Board of Education is intended to act as a body with certain policy-making,
administrative, and advisory functions. Today we are here before you in an advocacy role
because of the tremendous educational importance of closing the gap of broadband internet
service to rural, unserved, and/or underserved areas of Maine.

Communities with broadband access experience a wide array of economic, educational, and
social advantages. However, many rural and remote areas are without sufficient bandwidth to
fully and effectively participate in the world economy. This gap between areas with and without
sufficient bandwidth is known as the 'digital divide'. Once a problem of access, 4th generation
internet capacities (and starting as early as 2020, 5th generation capacities) has made it an issue
of connection quality and speed. In education, we have now passed a threshold that allows us to
deliver personalized digital learning.

Let me share with you one brief example of form of personalized digital learning which is now
widely available in our country. In 2017, Khan Academy and the College Board, the maker of
the SAT, analyzed gains between the PSAT/NMSQT and the SAT and found a positive
relationship between use of Official SAT Practice and score improvements on the SAT. 20 hours
of practice on Khan Academy is associated with an average 115-point score increase from the
PSAT/NMSQT to the SAT, nearly double the average gain without Khan. Score gains are
consistent across gender, family income, race, ethnicity and parental education level.

The State Education Technology Directors Association's (SETDA) recommends downlink bandwidth speeds of 100 Kbps per student as a minimum. For example, SETDA recommends 250 Kbps per student for online learning. For a bandwidth-intensive platform like Khan Academy they recommend 1.5 Mbps per device. Many districts in our state are far from these targets, let alone the homes of our students and their families.

Unfortunately, Maine's digital divide means that students in rural & isolated communities "are at a disadvantage without online access in order to do school work." The Pew Research Center reports that 20% of rural adults whose household income is less than \$30,000 a year say access to high speed internet is a major problem. But so do 23% of rural residents living in households earning \$75,000 or more annually. That is to say, the digital divide is more than socio-economic barrier – it is a geographic one, especially in low-population states like ours.

If personalized learning and other Internet-enabled educational tools are to realize their potential, then substantial infrastructure investments in wireless broadband, fiber, and other technologies are needed. We are fortunate to have a public instrumentality of Maine state government whose mission is to facilitate the universal availability of broadband to all Maine households, schools, and businesses. It is well-positioned to promote use of broadband service, establish criteria defining unserved and underserved areas, administer funds, and facilitate state support of deployment of broadband infrastructure.

Investment in reliable high-speed Internet for the rural and underserved areas of the State is one of the best investments we can make for Maine. Increased broadband internet service across Maine's rural and underserved communities can strengthen career opportunities, enhance small businesses, and provide telehealth service. The State Board of Education, however, is here today to speak on behalf of critical 21st century need for high-speed Internet access to bring educational equity and opportunity to PK-12, career education, post-secondary education, and adult education students throughout Maine

For these reasons, the State Board is in support of L.D. 295 An Act To Authorize a General Fund Bond Issue To Increase Rural Maine's Access to Broadband Internet Service

I would be happy to answer any questions the Committee may have. The State Board will be available for work sessions on this bill.