

## NDLA, S TRN - Wolf, Sheldon

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**From:** Baesler, Kirsten K.  
**Sent:** Tuesday, November 9, 2021 7:42 AM  
**To:** NDLA, S TRN - Wolf, Sheldon  
**Subject:** HB1507 Testimony

WHY include it in the special session budget? - If we don't act now, we will miss out on this one-time opportunity for ND to use its ESSER funding from Covid relief packages to pay the costs

How we arrived at \$2M

- The source of this funding is NDDPI's state set-aside ESSER funding from Covid 19 relief packages with a deadline spend date of 2024
- The \$2M will train and credential one existing teacher per 200 students, so each of our buildings has an adequate number of qualified teachers (720 teachers across North Dakota) at an average cost of \$500 per elementary teacher and \$6000 for high school and middle school

Why the policy change?

- Students want it, and parents want their child's school to teach computer science and cybersecurity
- But even after five years of the legislators and NDDPI allowing it to count for a math or science credit, encouraging training, and incentivizing schools, ND is still behind the national average
  - Only 15 ND high schools offer AP Computer Science (194 high schools)
  - Only 43% of ND high schools teach even a foundational computer science class (Significantly behind the rest of the nation.)
  - Only 112 ND students took AP computer science exams in the entire State of North Dakota last year
    - Only 1 of those test-takers was Native American
    - Only 22 test-takers were female
  - Only 3.9% of our high school graduates have taken even a foundational computer science or cybersecurity course
- Just as local superintendents understand it is their responsibility to ensure that all students in their districts have equitable access and encouragement to take classes that lead to high-paying, in-demand jobs. The State has the responsibility to make decisions that lead to equitable access to this learning in the 483 school buildings across North Dakota

NDDPI, NDIT, NDUS, and ND Commerce have been partnering for five years to bring us to this point.

- All courses are available through ND EduTech, ND Center for Distance Education, Bismarck State Polytechnic College, and NDUS Dakota Digital Academy to train all necessary teachers.
- We have established ND Computer & Cyber Security Learning Standards for every grade K-12 (The first State to include cybersecurity)

While HB1507 appears to be a K-12 education-focused bill, it is much more. HB1507 is a **workforce and economic development solution for the State.**

- The State with the highest number of open IT jobs is California. The second most common location for IT jobs is “Remote.”
- ND will have to do this eventually. If we don’t prepare our ND students, we will be outsourcing our talent rather than growing the talent that can remain in North Dakota and provide services for every other State in the nation
- Computing jobs are the #1 source of new wages in the US
- We currently have a knowledge deficit and need to import employees, fill them with out-of-state citizens, or leave them unfilled, resulting in lost state revenue. (1,603 open computing jobs in ND, but 152 computer science graduates in 2018)
- This education leads to high-paying, in-demand jobs

Starting to teach Computer Science and Cybersecurity in High School or even Middle School is too late.

- Computer science is foundational (like reading, writing, and math), and it affects every career field
- Just like we teach kindergarteners to plant a seed in soil and watch it grow, or teach them how the electrical circuit works in 5<sup>th</sup> grade, so must we teach our students how the internet works and how to use its potential and protect themselves from its potential.
- Computer science is not just about learning technology and coding; it is about logic, problem-solving, and creativity
- [Multiple studies show](#) that students learning computer science [in elementary school](#) perform better in reading, math, and science.
- 50% of Americans rank computer science as one of the two most important subjects of study after reading and writing
- 54% of children rank computer science as a favorite class (3<sup>rd</sup> only to Art, Design, and Performing Arts)

HB1507 is a State Safety and Security issue.

Young children must understand digital citizenship and cybersecurity

- 90% of our State’s schoolchildren now have a school-issued iPad, laptop, or tablet to complete their schoolwork.
- These devices use the State’s STAGE Network for hours every day, opening our State network to security risks with users who aren’t educated on its potential power and danger.
- 19% of children age 8 had a smartphone in 2019, up from 11% in 2015
- 53% of children age 11 had a smartphone in 2019, up from 32% in 2015

I ask for your full support of HB1507.

If I can be of assistance or have any questions, please feel free to contact me via email or phone.

Thank you for your support and dedication to the State of North Dakota.

Kirsten



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