

Budget Section
June 25, 2014
Department of Career and Technical Education

Mr. Chairman and members of the Budget Section, my name is Wayne Kutzer, Director of the Department of Career and Technical Education. We were asked to provide performance measures based on the STEM funding received in SB 2019, Career and Technical Educations' funding bill. Those measures were the number of schools, students, and business partners that worked with schools. We have worked directly with 49 school districts and 8,790 students in those districts, and specifically through the STEM Matching Grant, schools are working with eight business partners. Here are the specifics on each of the STEM initiatives.

We received funding for four STEM initiatives:

- 1) Engineering by Design (EbD) or Project Lead the Way (PLTW) curriculum adoption - \$300,000**
- 2) STEM Matching Grants - \$150,000**
- 3) ND STEM Network - \$300,000**
- 4) STEM Infusion Grant - \$200,000**

1) Engineering by Design (EbD) and Project Lead the Way (PLTW).

The focus of the funding is to encourage schools to adopt either EbD or PLTW, STEM based curriculum, in their school. We are currently working with and providing some funding to 28 high schools with over 2,800 students who have adopted either EbD or PLTW. The schools are:

Ashley, Bismarck, Central Valley, Cavalier, Cooperstown, Dickinson, Edmore, Ellendale, Fargo, Glenburn, Grand Forks, Jamestown, Linton, Mandan, Milnor, Minot, New Rockford, Hatton/Northwood, Pembina, Richardton-Taylor, Steele, Thompson, Valley City, Lisbon, West Fargo, Williston and Wimbledon.

Additionally there are three schools that will be starting next school year:

Devils Lake for PLTW programs at the middle and high school and they will be starting PLTW in all three elementary schools in the fall.

Wahpeton for PLTW programs at the middle and high school.

West Fargo will be starting PLTW in all of their elementary schools; they already have PLTW at the secondary level.

2) STEM Matching Grants.

These grants were funded at \$150,000 to encourage business and education partnerships. A maximum grant of \$15,000 was established to be matched by a local business. We have provided funding to three districts, and four pending approval, involving seven business partners.

Bismarck Public Schools, with business partner Bobcat, is expanding the use of STEM Robotics in the fall into the 6th grade – 1,850 students.

Williston Public Schools with business partners SM Energy, ASK Transportation, Inc. and Vestal Properties, LLC will offer three new sections of EbD curriculum next fall – 50 students.

West Fargo Middle Schools with business partners Century Link and Verizon Corporation has conducted a STEM Cybermission program and will be including computer coding, 3D printing integration and STEM integration training for sixth grade teachers – 1,858 students.

We are also working with four schools: Mandaree, Alexander, New Town and Watford City regarding STEM Matching Grants with their business partner, QEP, to start PLTW in their elementary schools. QEP will match \$15,000 at each school for startup costs. During the next two years they will be adding PLTW at the middle and high school level, with additional financial help from their business partner.

3) ND STEM Network received a total of \$300,000 of one time funding.

The ND STEM Network has been established, a management team and officers are in place. The Network held a STEM Summit in Bismarck this past April which was attended by approximately 125 educators, administrators and business/industry representatives. It is established as a non-profit in North Dakota and they are working on a federal designation to be able to accept donations which they need to facilitate their move to total self-support. A management company, Praxis Strategy Group, has been contracted with to handle the day-to-day business of the STEM Network.

4) STEM Infusion Grant received \$200,000.

STEM Infusion focused on the recruitment and engagement of students into STEM fields. They worked with 23 districts and 1,650 students on a number of STEM related projects, including robotics, day-long activities that required students to work as a “company” for an entire school day to find a solution to a relevant, present-day problem and then communicate their discovery to a community-led boardroom, comprised of school administrators, school board members and local industry representatives, and finally lab based experiments in nanoscience, biotechnology, microelectronics and engineering. They have recently added AT&T as a business partner. The districts involved are:

Beulah, West Fargo, Fargo, Four Winds, Hatton, Hankinson, Hazelton-Moffit-Braddock, Hope-Page, Maddock, Minot, Munich, Northern Cass, Grand Forks, Richland 44, Bismarck, Steele, Strasburg, Valley City, Wahpeton, Washburn, Wolford, Ft. Yates, Wyndmere.

Mr. Chairman I would be glad to answer any questions.