

Minnesota Annual Performance Report (APR) FY20

FY20 Pine to Prairie/Northland Consortium
Pine to Prairie/Northland Consortium

NOTE: This APR is reporting on the Perkins V transition year, FY20, 1 July 2019-30 June 2020 and corresponds to the funding opportunity FY20 Strengthening Career and Technical Education for the 21st Century Act (Perkins V) in Amplifund.

1. Describe the consortium's efforts to design, implement, and/or improve programs of study during the Perkins V transition year.

During the 2019-2020 school year, meetings were scheduled to review the programs of study for Health Occupations and Construction Occupations, but unfortunately, the COVID-19 pandemic forced us to put these meetings on hold as schools were required to adjust to a distance learning format. Unfortunately, Northland Community and Technical College have had quite a bit of turnover with their staff as they have had four different Perkins coordinators over the past three years. This is not an excuse; it just makes it difficult to have continuity when trying to coordinate these discussions and meetings.

Northland worked with faculty over the past year to improve programs of study through new modalities of instruction including Competency-Based Education, online and distance education, and virtual presence technologies. Due to COVID-19, many of the CTE programs were forced to explore new options for training that reduced seat time and contact with other students and instructors. Northland's CBE program development was uniquely suited to meet the challenges.

--Mechatronics - The mechatronics program was completed converted to CBE and was launched in August of 2020.

- -PAET - The Precision Agriculture Equipment Technician Program was converted to a distance education model in order to accommodate COVID. Students can attend the lectures via Zoom and other A-Synchronous methods while completing their hands-on performance evaluations on-site with industry partners.

- -Electronics - Several course in the Electronics program were converted to CBE formats and set this program up for a future launch date yet to be determined. The program remodel included many new options for employees from industry partners like Digi-Key. These options allow employees to attend class while still maintaining a full-time job with the industry partner.

Northland also continued to develop programs focused on the health industry. One such program of study was the respiratory therapist program. Through partnerships with Altru, Northland worked diligently to focus on challenges COVID-19 presented in order to continue to develop and expand curriculum and resources.

Northland continued to expand the equipment and tools accessible to Northland students through Perkins funding. With a greater focus on distance education, Perkins funding made it possible for Northland to allocate resources needed to start the work in Virtual delivery methods to students in the Automotive, Trades, and Aerospace programs. Our goal was to reduce the time needed to set expatiations for hands-on requirements in the programs. Virtual and distance tools acquired to support the training programs greatly increase the efficiencies in the classrooms, and ultimately reduced the time needed for students to complete hands-on performance tasks.

2.Explain how size, scope, and quality informed your data-determined decisions concerning programs of study and local uses of funds.

It was noted at the secondary level that Construction Occupations and Business Administration are two of our most popular programs of study. Because of this, we try to focus on providing these programs with state-of-the-art equipment, curriculum, software, and professional development. Even though the Health Occupations program of study is not a large one, it's also very high on our list of careers in high demand so efforts are being made to support and expand this program of study. Our biggest hurdle with expanding Health Occupations is finding instructors with the proper licensure.

We also noted that needs outlined in the CLNA attributed to core requirements needed across many professions. Northland started focusing on programming that would close gaps in many programs across manufacturing, health, and the transportation industries. Electronics programming was expanded to directly support the requirements outlined by industry partners. Mechatronics programming was retrofitted to include both traditional and competency-based delivery methods. This allows students to attend class on their schedule and includes options where students can start and end courses on their own schedule. Students are no longer required to start class in the fall and finish by December. They can now start whenever and finish whenever according to their work schedule or expectation in their daily lives.

Program offerings in agriculture were also expanded to meet the growing need in industry. Intro to Agriculture courses were expanded and offered in Online College in the High School. During conversations with secondary and post-secondary educators, it was noted that offerings supporting the agriculture industry have been declining over the past 10 years. We used the funding to focus on curriculum development efforts to support agriculture education, animal sciences, and agronomy courses. These programs will help in the overall goal to answer ag literacy issues in urban environments.

3.Describe the consortium's efforts to partner with business, industry, and local communities and to provide CTSO experiences to students. What were your successes and challenges?

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Just prior to the pandemic I had the opportunity to tour TEAM industries in Bagley for the purpose of expanding work-based learning opportunities for students enrolled at Fosston High School. While there is interest from local businesses, but both districts and industries need further training on what is allowed by law for work-based learning opportunities to have the desired impact. Again, we are hampered by teachers not having the proper license to pursue these opportunities for their students. The current COVID 19 pandemic has made it extremely difficult to further develop these opportunities as well, and will so for the foreseeable future. CTSO's are a priority with the Pine to Prairie Cooperative Center. Ada-Borup, Badger Crookston, East Grand Forks, Greenbush Middle River, Marshall County Central, Roseau, Stephen Argyle, Tri-County, Warren, and Win-E-Mac school districts have had a long history of success in FCCLA. We also have a strong representation in BPA and FFA. Trades and Industry instructors will continue to be encouraged to pursue opportunities in Skills USA.

Meetings with DigiKey, Marvin Windows, Textron, and other manufacturers in the region all focused on the same messaging. They were looking for more flexible offerings for their employees to continue their education and professional training. This communication became even more important as the COVID-19 pandemic took hold in our region. These meetings and the information gathered during, informed the training developed in the Mechatronics, Electronics, Aviation Maintenance, and Precision Agriculture Programs.

As a cored curriculum in electronics, hydraulics, process programming, and manufacturing were developed in order to impact as many training programs as possible. The entire Mechatronics training curriculum was redesigned into a competency-based, open lab modality. This new design and the lessons learned during informed the decision to continue with the Welding programs in 2021. Overall, this training method is supporting customized training, professional development, and traditional AS degrees all in the same classroom and instructional delivery. Ultimately this program is allowing students that pay as they go to take on each step, one at a time. It also allows those that might be sponsored to work with employers and continue their education while maintaining a full-time career. It also allows traditional students to use federal financial aid and resources to work within traditional education models. More information can be found here:
<http://www.northlandcollege.edu/academics/programs/mechatronics/>.

4. Describe successes and challenges in your efforts to improve service to special populations during the transition year.

4a. Based on the data, what student group(s) did you identify as needing specific attention. What resources were applied to address these concerns?

The COVID-19 Pandemic made it extremely difficult for all students to find success as districts were forced to quickly transition to a distance learning model, and it hit the special populations especially hard. Many special population students simply do not have the required resources that were required for distance learning to be successful. Mahnomon for example only had approximately 30% of their district with adequate internet service. In reviewing the data it was noted that students with disabilities and economically disadvantaged students were overrepresented in CTE classes. In order to address these concerns, resources were applied to professional development for teachers as well as equipment and supplies to help the teachers meet the needs of their students.

4b. How did your consortium provide support to students in special populations to ensure equitable access to programs leading to high-skill, high-wage and in-demand occupations?

Support is provided by offering high-quality professional development to the instructors, counselor,s and administrators to ensure they become aware of any barriers that might exist which prevents students of special populations from signing up for classes. Program specialists from MDE were also invited to my regional network meetings to help explain and discuss the importance of understanding and supporting students in special populations.

4c. How did your consortium provide academic support ensuring all CTE students made meaningful progress in performance, including subgroups of students?

The Pine to Prairie Cooperative Center provides continued support to counselors, administrators, and teachers as it pertains to academics in CTE programs of study. Performance indicators are reviewed and strategies are discussed for ways to improve our results. At the individual school level, each district has procedures in place to help students who are struggling academically.

As a part of an Office of Higher Learning Initiative, the consortium closed out a project that was focused on a commitment to complete students in various programs of study. During this project, special consideration was given to all demographics of students in order to identify any learning barriers that might exist in instruction formats or curriculum content. Overall, we showed an increase in success rates and closed gaps in performance in special populations.

4d. How did your consortium support non-traditional (by gender) students (For example, women in traditionally male-dominated careers and men in traditionally female-dominated careers)

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At the secondary level, Instructors and counselors are encouraged to invite industry professionals into their classrooms who are non-traditional by gender. Studies have shown that students need to see someone who looks like them in order for them to see themselves in a similar career field.

Professional development opportunities were identified that focused on tools to recruit non-traditional students into specified careers. One such opportunity was a conference in Florida focused on Women in Aviation. Two female students and the Equity and Diversity Officer from Northland attended the conference and brought back presentations about what they experienced at the conference. This training was meaningful in that it helped bring in ideas from throughout the aviation industry that has since been incorporated into Northland recruitment practices. This conference also talked through many issues that are present in the male-dominated aviation industry in order to bring awareness to the issues and support positive change.

4e. As you reflect on your service to special populations, what strategies were successful? What strategies were not successful and why?

It would be helpful at the secondary level to gain a deeper understanding of the evidence-based services and supports that have had the greatest impact when meeting the needs of students who are classified as special populations. The Pine to Prairie Consortium will continue to be proactive in regard to meeting the needs of our special population students.

Recruitment goals and success metrics regarding special populations in CTE programs is an increasingly difficult area to address.

5. Describe successes and challenges in the consortium's efforts to improve transitions for students from high-school to college and/or career.

5a. Examples should include articulation, early-college credit, career and college readiness activities, transition of adult learners into the workforce, and brokering with other consortia.

The Pine to Prairie Consortium has had wonderful success with Online College in the High School which was established by my predecessor. Last school year OCHS had a total of 1008 students earn dual secondary/postsecondary credits. This number has seen a steady rise over the past several years. In addition to OCHS, The Pine to Prairie Consortium has articulation agreements in place for the Health Occupations program of study. During the 2019-2020 school year, 10 students received articulated credit for the medical careers course. Northland Community and Technical College partners with Lincoln High School in Thief River Falls to offer a course called Intro to Technology. This course allows students to explore a different Northland course on each day of the week. The courses include Agriculture, Autobody, Aerospace, Auto Mechanics, and Welding.

We were able to collaborate with the consortium in communicating many summer camp and workshop activities directed at secondary students and educators. Through these opportunities, the team was able to communicate career opportunities and options to students, while preparing educators to include content and curriculum in their classrooms. Often, the materials provided were focused on emerging technologies and career fields that will help prepare students for tomorrow's needs.

5b. In addition to the narrative, please provide numbers of students participating in these categories.

As stated above, Pine to Prairie had over 1,000 students participate in the OCHS program and 10 students earned articulation credits through Northland Community and Technical College. More than 900 students participated in summer camps, workshops, and vex robotics activities.

6. Describe the consortium's efforts to BE BOLD during the transition year and beyond. What innovation took place during the reporting year and what was the impact? What were the barriers or challenges to innovation?

The formation of a regional consortium leader's workgroup has proved instrumental in helping to complete the tasks assigned to us. These workgroups proved to be invaluable during the CLNA process as we were able to gather data from a regional perspective as well as an individual consortium. These meetings are especially helpful for relatively new consortium leaders as we navigate through the learning curve associated with these positions. I would highly recommend this format for other regions of the state looking to leverage the collective knowledge of other consortium leaders.

7. Describe Perkins-funded professional development (PD) that took place in the consortium during FY20.

7a. What was the total Perkins-funded investment in PD for the year?

At the secondary level, the total investment for PD was: \$16,738. At the post-secondary level, the total funding was \$21,487

7b. Who (positions, not specific names) benefited from professional development?

Last school year I was able to offer fall network meetings to my Business Administration, and Family Consumer Science instructors. We were fortunate to have the program specialists from MDE join us which proved especially valuable to the instructors as well as the director. The COVID-19 pandemic made it difficult to complete some of the other tasks we had planned to complete including a networking meeting with the Trades and Industry, Agriculture, and Health Occupations instructors. Faculty at the post-secondary level were primary participants for all professional development activities funded at that level.

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7c. What professional development activities were conducted/sponsored?

As stated above, network meetings were held with Business Administration and FCS instructors. Other meetings were planned, but the pandemic caused these meetings to be canceled. Perkins also funded conference attendance both in-state and out-of-state. Several educator workshops focused on emerging technology and how to incorporate technology into the classroom were also held. A focused workgroup on competency-based education was completed at the national principal investigators' conference for the National Science Foundation.

7d. What topics were addressed and what were the related outcomes?

- An overview of FCS initiatives and progress in the last four years.
- FCS Frameworks, Phase IV, Integrating Perkins V with currently approved programs.
- Industry Certifications, Technical Skills Assessments, and Alignment with FCS courses.
- Sharing of Experiential Learning Activities and Career Exploration/Career Development Ideas in the Culinary Pathway. Building a Culinary Pathway and Program of Study.
- What is Career and College Readiness?
- What is Career and Technical Education?
- Business CTE, Table C, and Frameworks
- Business Frameworks Integration, Course Syllabi, Employer Engagement/Advisory Committees.
- Connecting Career and College Readiness, Frameworks, and TSA Competencies.
- Perkins V, Workforce Readiness thru Programs of Study.
- These network meetings received rave reviews from the teachers who attended, as well as the building administrators. The meetings provide teachers with a deeper understanding of the Perkins legislation as well as an opportunity to network and to share ideas on curriculum development, student organizations, and advisory committees.
- Competency-Based Education and best practices.
- Vex Robotics and Competition Administration, Summer Camp, and best practices.
- Autonomous and Virtual Technologies in the classroom.

8. Recognizing that some students need multiple entry and exit points to CTE programs, describe how your consortium has helped students return to the education system to complete their GED or secondary school education, or to learn a new skill following job loss.

The Pine to Prairie Cooperative Center Directors sits on the Youth Committee Board for the Northwest Private Industry Council. These meetings have helped the director gain a deeper understanding of the services provided by the council. Members of the Youth Committee represent economic development, juvenile justice, business, community-based organizations, E-12 education as well as post-secondary education and Intercounty staff. This group meets quarterly and works together to oversee youth programs. The focus of this group is to link education, employment, leadership development, and sustained support for at-risk youth in the consortium.

At the postsecondary level, significant resources were dedicated to CBE program development and updates to support flexible training

9. What actions did the consortium take to advance teacher recruitment, retention, training, and education? What were your successes and challenges? What would you change in the future?

At the secondary level, the Director meets with each new CTE teacher directly and helps the teacher complete the program approval spreadsheet. These meetings are also used to explain the purpose and importance of Advisory Committee meetings. Perkins V is described to ensure the instructor has a clear understanding of how the law impacts them, their students, and the districts in which they work. Last fall the Pine to Prairie Cooperative Center offered fall networking meetings and Program specialists from MDE were invited as well to share their expertise. These meetings were very well received and I had planned to continue in this tradition but COVID-19 has required me to rethink this strategy. Like all areas of the state, teacher recruitment is proving to be extremely difficult. One of the recurring themes I'm seeing in the northwest is for instructors to get an out of field permission to teach in the various CTE positions that we have available. Unfortunately, the out of field permission process does not address the more daunting issue of attracting more qualified candidates to the teaching profession. I'm highly concerned that the current pandemic will continue to exasperate the situation. As for teacher recruitment, I'm seeing the most success with a "Grow Your Own" approach where local community members are recruited into the teaching profession. I see this as a temporary solution to the complex issue of teacher licensure.

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10. What actions did the consortium take to expand equitable access and opportunities for work-based learning for all students? How were students made aware of these opportunities?

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Through partnerships with industry partners in the Agriculture industry, the team was able to start a program where students are able to receive credit for their work experience in parallel to the work they complete at the job site. The instructor partners with supervisors to ensure learning outcomes are met, and the lectures are coordinated to prepare for the daily tasks of the student/worker. This program was funded through Perkins and is in its second year of administration.

11. What actions did the consortium take to improve integration of academic and technical skills in CTE programs? Please provide specific examples in your response.

Member districts of the Pine to Prairie Cooperative Center are encouraged to use Precision Exams as a method of assessing student performance in regards to both academic and technical skill attainment. At the present time, the following programs of study are participating: Construction Occupations, Vehicle Services, Personal Financial Responsibility, Plant Science, Therapeutic Services, Health Informatics, and Diagnostic Services. At our monthly administrative meetings, and bi-annual school visits, counselors, teachers, and school leaders are encouraged to promote technical reading in all of their CTE course offerings. Examples include reading articles from trade journals that pertain to the curriculum or course content being covered in class. The consortium will continue to promote evidence-based methods as they become available.

All CTE programs meet with industry advisory committees in order to flush out new and changing requirements in their fields of study. Through these meetings, training and equipment were supported to pair the needs of industry with the content taught in the classroom.

12. Reflecting on your FY20 work, what "points of pride" or highlights would you like to share?

As I reflect back on the 2019-2020 school year, I would like to reiterate again the impact that the formation of our regional consortium leaders' group has meant to me personally and professionally. The work we do as consortium leaders impacts a wide range of educational stakeholders. These stakeholders depend on us to provide accurate and timely answers to their questions and needs. As consortium leaders, it's important that we all have a firm understanding of Career and Technical Education and how Perkins V plays a critical role in promoting and supporting it. While I still have much to learn, our regional meetings have helped to flatten the learning curve considerably. I highly recommend other regions of the state to adopt a similar approach to help all consortiums develop a network of dedicated, knowledgeable leaders. I am also extremely excited to see the outcomes of our work in regard to the legislative rural CTE grant for the northwest service cooperative. This grant opportunity brought 1.5 million dollars into our region in the form of CNC router machines and state of the art laptop computers capable of running today's powerful drafting and design programs to all 28 of the Pine to Prairie districts.

Through ongoing efforts funded in part from Perkins resources over the past three years, Northland was able to show a track record of successful administration in summer camps, workshops, and other activities supporting autonomous systems and virtual technologies. This allowed Northland to submit and be awarded the National Center of Autonomous Technologies from the National Science Foundation. This came with 7 million dollars in funding for over 5 years. This is a great example of great fiscal stewardship which will allow Perkins priorities to maintain funding and support for many years to come. www.ncatech.org.

The Perkins team was able to partner with the 360 Manufacturing Center of Excellence to support the successful launch of the Mechatronics Program in a competency-based education model with open classroom design. Many hurdles were jumped in order to work through Minnesota State requirements and HLC accreditation concerns. The program is a first of its kind in Minnesota, and will likely spark other programs in the future. Here is a link to a webinar outlining the program: <https://youtu.be/XPfY5kLjVM8>.