

FY19 PERKINS GRANT APPLICATION

ANNUAL PERFORMANCE REPORT

Award Year: 2018

Report Period: 7/1/2018 – 6/30/2019

Consortium Name: Pine Tech Consortium

Submitted by: Kierstan Peck and Becky Maki

Submitted Date: 10/15/19

Goal 1: Designing & Implementing Programs of Study: Goals, Objectives and Strategies

QUESTION: What activities were conducted during the grant year that supported quality Programs of Study (POS)?

- In FY18, the consortium guidance counselors reviewed, updated and created new POS's. This initiative included developing 69 new programs of study across the consortium. This process was revisited in FY19 during 2 counselor in-service meetings in FY19. The focus of these meetings was developing fidelity in local district Personal Learning Plans, sharing resources including career information systems and career planning tools and strategies.

QUESTION: Describe the impact of the POS in terms of participation, concentrators, student outcomes, etc.

- 604 secondary students participated in CTE courses within the 6 secondary districts. This is an unduplicated student count (1075 duplicated student count). This is an increase from the previous year reported of 537 students. 236 students were concentrators. Secondary concentrators were highest in Human Services and AF&N Programs.
- 229 secondary students in the Pine Tech Perkins Consortium participated in College Credit in High School Opportunities, earning 2,034 credits. 88 of these students participated in CTE course, earning 446 college credits. These courses were in the following fields; Healthcare (CNA, EMS, Health Care Core Curriculum), Automotive (Vehicle Service, Brakes, Intro to Autos), Early Childhood Education, and Manufacturing.
- Within the last 2 years 9 new vocational programs were added at the secondary level.

East Central Schools - Health Science, Trade & Industry
Pine City - Trade & Industry
Braham - Work Experience
Mora - Trade & Industry, Diversified Occupations, Work Experience
Hinckley Finlayson - Trade & Industry, Diversified Occupations
2 additional new programs will be submitted in FY20 for vocational approval

- PTCC has added the following programs in the last 2 years, expanding opportunities for students to enroll in CTE courses:
 - Welding Technology
 - Automated Systems Technology
 - Automated Systems Technology Industrial Equipment
 - Applied Engineering Technology
 - Emergency Medical Services Professional

QUESTION: What activity (or POS) was the most successful, something that you would repeat or share with others and why?

- The Summer Academy initiative expanded in FY19 to include a full day at PTCC in the Manufacturing Dept. Students were able to engage with PTCC staff, operate innovative equipment and create a product. Three additional days were spent at a secondary site where the students were involved in design, mass production and creating a manufacturing plan. Student feedback was very positive for this summer initiative. This initiative builds on the Consortium's focus on Manufacturing as a POS across the consortium. Hinckley Finlayson, Pine City, East Central and Mora have all developed new Trade and Industry Approved Vocational Programs within the last 2 years. Districts have developed programs and recruited T&I Instructors and obtained Tier 3 / 4 licenses to obtain vocationally licensed instructors. Perkins funds have been utilized for upgrading and purchasing equipment and staff development for these programs.
- In FY19 PTCC was awarded a Concurrent Enrollment Grant through the Office of Higher Education to develop the PTCC Manufacturing Academy. Through this grant, and in partnership with Minnesota State CTE, the Advanced Manufacturing Center of Excellence, and the Engineering Center of Excellence, we began training secondary and postsecondary teachers in four Manufacturing Skills Standards Council courses. As the teachers complete the training and pass the certification exam, they will be able to teach the four courses through concurrent enrollment at their local high school and through ITV. In addition to taking the courses, they are developing hands-on activities to further engage secondary students in exploring a career in the manufacturing sector. High school students will also be able to become MSSC certified upon successful completion of the course and certification exam.

QUESTION: Describe any innovative initiatives. Did your consortium award incentive sub-grants for exemplary performance or to promote innovation? If yes, please describe.

- Perkins funds are utilized to upgrade equipment and technology in the Braham Ag program. The Ag instructor and students entered the Houston NASA Hunch competition with their prototype of a washing machine that could be used in space. The student's design was highly recognized by NASA for possible future use in space. The four students that traveled to the competition were able to sign a piece of hardware that went into space. Each participating student has expressed interest in careers in electrical or mechanical engineering. An article highlighting this event is attached.
- The MSSC training referenced in the previous question is a highlight of how our consortium was able to leverage Perkins and external grant funds to provide professional development opportunities for our secondary and postsecondary partners.
- PTCC has also partnered with local high schools and PTCC customized training to provide nursing assistant training courses to secondary students at their high school. This model provides additional access to such courses as high schools face a barrier of hiring credentialed teachers.
- PTCC partners with East Central High School to offer two automotive courses onsite at the high school, taught by PTCC faculty.

If you answer "Yes" to any of the following questions, please briefly describe your activities.

QUESTION: Did your consortium:

expand the use of technology in CTE programs?

- Perkins funds were utilized to upgrade equipment in East Central, Pine City, Hinckley Finlayson, Mora, Braham and Rush City Schools. These upgrades give secondary students the opportunity to interface with industry standard technology in manufacturing, welding, automotive and the construction industry.
- Perkins funds were used to purchase and upgrade equipment for the Automated Systems Technology and Welding Technology programs at PTCC.

offer or provide professional development to CTE teachers, faculty, administrators, and/or career guidance and academic counselors?

- Perkins funds were utilized for professional development for Ag, Construction, Manufacturing and Family and Consumer Science teachers (including ServSafe Certification).
- Perkins funds were leveraged to offer the MSSC training to secondary and postsecondary partners.
- Perkins funds were used to allow PTCC to attend trainings targeted at serving underrepresented students, or to gain additional understanding of CTE programs. Such trainings included:
 - CTE Works! Conference

- NACADA Membership
- 2019 MACMH Child and Adolescent Mental Health Conference
- ASA Equity and Inclusion Conference

provide support for CTE programs that improve the academic and career and technical skills of students through the integration of academics with CTE?

- Perkins funds have been utilized to upgrade equipment and technology in the Braham Ag program. This program recently went through program approval for Physics. This contextual course will give secondary students the opportunity to gain a Physics/Science credit in a technical education setting.

use Perkins funds to support CTE programs that offer experience in and understanding of, all aspects of an industry for which students are preparing to enter?

- Perkins funds were utilized to provide staff development for the ServSafe certification for an instructor and ServSafe course development for students at Hinckley Finlayson and Mora High Schools.
- Perkins funds were utilized to provide field trips for career investigation and engagement for Business Ed students in East Central and Mora High Schools.
- Field trips to postsecondary schools, industry site visits and service learning options are supported by Perkins funds in Mora, East Central and Braham Secondary Schools.
- Perkins funds were used to provide field trips for career exploration at Pine Technical and Community College for schools within the Pine Tech Perkins Consortium and outside of the consortium. These opportunities allowed students to explore careers in CTE and understand what is necessary for a successful transition to college.

use Perkins funds to support the improvement or development of new career and technical education courses and initiatives, including career clusters, career academies, and distance education?

- Perkins funds have been used to help create “career academies” - career pathways for high school students to earn college credit, and in some cases, to obtain industry recognized certifications or credentials.

use Perkins funds to provide activities to support entrepreneurship education and training?

- In FY19, PTCC received an OHE Concurrent Enrollment Grant to develop the PTCC Business Academy. This academy is offered via ITV to local high schools, taught by PTCC faculty. At the end of the year, students will be able to earn the Business Essentials Certificate (if they take a College Composition course in addition to the business courses offered,

Goal 2: Effectively Utilize Employer, Community, and Education Partnerships

QUESTION: How did your consortium support partnerships among local educational agencies, institutions of higher education, adult education providers, and, as appropriate, other entities, such as employers, labor organizations, intermediaries, parents, and local partnerships, to enable students to achieve state academic standards and career and technical skills?

- The establishment of the Career Prep Consortium is a model that proved to be successful for FY18 and continues to be an important platform for collaboration. Secondary partners were invited to PTCC in September 2017 to improve communication and build relationships with other secondary partners and PTCC. This consortium extends beyond the Pine Tech Perkins Consortia, which has proven beneficial to all parties involved. The Career Prep Consortium established a strategic work plan addressing two main initiatives; 1) expanding CTE access for ALL students, and 2) streamline the concurrent enrollment intake process. The strategic initiatives action plan for expanding CTE access for all is outlined below: CTE Access For All 1) Address the stigma of CTE by educating the population (students, parents, school board, community) to create demand a. Create marketing materials b. Recruit students into CTE fields 2) Explore apprenticeships with industries “in need” a. Explore the use of WorkLink 3) Research best practices in other states 4) “Exploit” the Personal Learning Plan requirement to incorporate CTE 5) Inventory Consortium CTE programming needs 6) Research eligibility rules and articulation agreement rules.

As evidenced through the growth in student numbers, concurrent enrollment has been a successful model of delivery for our secondary students. Students are able to remain in the school building and be part of the student body with all the support systems, and activities, while also being able to gain PSEO credit. Giving students options within the school building works well for small outstate districts. Delivery of instruction through ITV and appropriately licensed HS instructors have been an efficient delivery model for our region. The college instructors have provided mentorship for high school teachers to insure rigor and curriculum alignment. The Career Prep Consortium members came up with a Career Academy model concept, to be developed and implemented in FY19 and FY20, to further expand CTE access and concurrent enrollment opportunities. Through these career academies, Pine Technical and Community College is able to offer high school students an opportunity to explore possible careers that lead to high-skill, high-wage, and in-demand career opportunities. The overall goal of these career academies is to increase opportunities for students to participate in career and technical education (CTE) opportunities that provide access to: college credit, pathways to industry recognized credentials, and exposure to in-demand career opportunities. The following academies were identified as priorities for development: 1. Business 2. Advanced Manufacturing 3. Healthcare 4. Automotive 5. EMT 6. American Sign Language Other activities that have continued to be successful are the Mobile Manufacturing Lab that

PTCC maintains and lends equipment to high school CTE teachers for use in their classrooms.

- In FY19 PTCC partnered with local and regional business and industry to offer a healthcare career fair for PTCC students.

QUESTION: Do business and industry partners help connect students to experiential and work-based learning opportunities? If so, what type of experiential/work-based learning is available to students in which programs? How many students were impacted in specific career pathways?

- The Ag program in Braham receives approximately \$75,000 per year in donated equipment, contributions and student support from industry partners and organizations. These funds are utilized for student opportunities, equipment, field trips and competitions.
- A EMT / EMR Health Science program was vocationally approved this year in East Central Schools. Students who complete this on site program (22 students) become certified in either EMT / EMR. These students serve as First Responders at East Central Schools Athletic events.
The instructor for this program is hired by the secondary district and in collaboration with PTCC.
- Another example of industry/community connection is in Early Childhood. Approximately 20 students participate in internships or field experiences in local placements. These placements include Head Start, Early Childhood Family Education, School Readiness and licensed child care centers.
- School to work programs exist in Pine City, Mora, Braham and Hinckley Finlayson. A new program is under development in Rush City and will be submitted for vocational program approval in FY20.

QUESTION: Describe the status and activities of CTE advisory committees in your consortium.

- Since FY16, the Pine Tech Consortium secondary schools have worked with PTCC to develop joint advisory committees. This is a continual work in progress that high school instructors greatly value. Instructors gain information from industry members regarding workplace expectations, trends and employer priorities. Secondary instructors also gain information regarding postsecondary expectations, curriculum and industry trends. Perkins funds provide for substitute teachers if needed for participation. Joint advisory committees have developed in Business, Manufacturing and Family Consumer Science (Early Childhood).

QUESTION: Did your consortium use Perkins funds to support CTSOs? If so, how?

- Perkins funds are utilized to upgrade equipment and technology in the Braham Ag program. This program sent FFA students to the following events and competitions.
Shell Eco Marathon Sonoma CA
WorldFood Prize UM Des Moines Iowa
NASA HUNCH Houston TX (more about this event in Goal 1)
MTEEA Supermileage Challenge Brainerd MN

QUESTION: Did your consortium use Perkins funds to support partnerships between education and business, or business intermediaries, including cooperative education and adjunct faculty arrangements at the secondary and postsecondary levels? If yes, please describe.

Goal 3: Improve Service to Special Populations

QUESTION: What strategies were adopted to overcome barriers for special populations and non-traditional (by gender) learners?

- The Middle College/College Connections project has been a strategy designed to give at risk students at Area Learning Centers the opportunity to earn college credit while working on high school completion. These approved (by MDE) partnerships have been implemented in 5 local alternative learning sites. Students take the accuplacer test or review their MCA scores to gain entry into this college site based program. Students are then able to take accredited courses or developmental courses for high school completion and college credit if appropriate. These courses are all delivered on the college campus to give the student a full college experience. Mentors work with the students to support this transition and address potential barriers that could impede student success. Anecdotal evidence of student experiences is building a platform of success for at risk students participating in the middle college experience.
- A Student Success Coordinator was hired in March 2017 to help identify target populations at PTCC and to help determine appropriate interventions to increase success and retention rates.
- A Student Success Advisor was hired in April 2019 to serve underrepresented student populations to increase success and retention rates.
- PTCC launched the “Kick-Start” scholarship, available to 8 local high schools, which allows students who were eligible for free and reduced lunch during their senior year to attend PTCC for free for one year, including a \$1,000 stipend for books and tool. This scholarship continues, and additional schools have been added for FY21.
- PTCC partners with the MN Department of Human Services’ Employment and Training Program and SNAP 50/50 program. This program allows PTCC to offer students receiving SNAP benefits access to additional services and resources, such as transportation assistance, while attending Pine. Pine is able to request 50% reimbursement on support services and a per credit rate, which is used to help offset the cost of the new Student Success Advisor position on campus.

QUESTION: What support service was provided during the grant year that was most successful in increasing special population and/or non-traditional learner recruitment and retention?

- PTCC's Early Middle College Program
- Summer Academy - this collaborative initiative between PTCC and all the secondary districts was designed to recruit at-risk students to experience a Summer Academy contextualized learning experience. The focus in FY19 was on Manufacturing and engaged students in a hybrid class staged on site at one of the secondary schools and on site at PTCC. Staffing and transportation was provided and funded with Perkins revenue.

QUESTION: Describe how your consortium uses data-driven decisions to target consortium activities to the needs of special populations. What impact have these efforts had on success of special populations?

- The consortium extended an invitation to MDE Results Measurement/Program Improvement Mgr., Kari-Ann Ediger to meet with the Pine Tech Consortium leadership team on Oct. 16. Kari-Ann gave an excellent overview of the data and had prepared individual district reports for each member. The purpose of this in-service was to provide all members with the tools to review individual and consortium data and to explore strategies to improve CTE student performance. Goals and strategies were discussed at the district and consortium level.
- The continued use of the Academic Alert referral system was used to identify academically at risk students to the PTCC Student Success Coordinator. This early alert system allows faculty to connect students with resources necessary to be successful. PTCC continues to work with students through the Office of Accessibility and Accommodations to better serve the needs of our underrepresented students. These services become increasingly beneficial and vital to the retention of our students, especially since mental health among secondary and post-secondary students is becoming more prevalent. These interventions are offered through the PTCC counselor and Student Success Coordinator.

QUESTION: How did your consortium provide preparation for non-traditional fields in current and emerging professions and other activities that expose students to high-skill, high-wage occupations?

- Onsite delivery of secondary vocational programs including health care, manufacturing, automotive and business

- PTCC has also partnered with local high schools and PTCC customized training to provide nursing assistant training courses to secondary students at their high school. This model provides additional access to such courses as high schools face a barrier of hiring credentialed teachers.

QUESTION: How did your consortium provide support for programs for special populations that led to high-skill, high-wage or in-demand occupations?

- Through the St Croix River Education (Consortium Secondary fiscal host) 900 students GED/Adult Diploma students were served this included, 15, 166 hours of learning, 105 individual subject area GED tests to 43 different people, of that 43 people 22 learners took all 4 tests and 15 of those passed all four tests to receive their GED.
- In addition we had 3 people complete their high school diploma.

Goal 4: Provide a Continuum of Service Provision for Enabling Student Transitions

QUESTION: Describe the kinds of articulation, dual enrollment, and transfer credit courses offered. What was the level of participation? How are these advanced credit courses transcribed on the student's high school record and on college transcripts?

- 229 secondary students in the Pine Tech Perkins Consortium participated in College Credit in High School Opportunities, earning 2,034 credits. 88 of these students participated in CTE course, earning 446 college credits. These courses were in the following fields; Healthcare (CNA, EMS, Health Care Core Curriculum), Automotive (Vehicle Service, Brakes, Intro to Autos), Early Childhood Education, and Manufacturing. Through this experience, many students participated and concentrated in POS's initiated in high school.

Listed below are the different methods used by secondary schools to transcript CIS and PSEO courses.

- The student's high school transcript designates these courses by using the word "college/CIS" in the course title.
- The high school transcripts college in the school/concurrent courses on a weighted grading system
- These classes are recorded on their transcript as college-level classes. The word College is in front of the course description. These classes are unweighted for our district. They also show up on their college transcript based on where the course is through: Anoka-Ramsey or Pine Tech.
- Courses are transcribed by course name and where they were taken (who was awarded the credit) on high school transcripts.
- The college transcripts the course on the college transcript as a letter grade according to the syllabus and grading guidelines for PTCC.

- All concurrent, AP, and contract courses are entered onto the transcript as weighted credits.
- Transcripts the courses with the name of the college on the transcript

QUESTION: Did your consortium use Perkins funds to establish agreements, including articulation agreements between secondary school and postsecondary career and technical education programs to provide postsecondary education and training opportunities for students? If yes, please describe.

- PTCC formalized an articulation agreement for American Sign Language courses offered at Pine City High School to all of the secondary schools in our Perkins consortia.

QUESTION: Did your consortium use Perkins funds to improve career guidance and academic counseling programs and/or to support occupational and employment information resources? If yes, please describe. Yes

- Two secondary districts utilize Perkins funds to purchase MCIS and other Career Assessments and tools. All Pine Tech Consortium Guidance Counselors received a stipend from Perkins for beyond duty hours work on reviewing, updating and improving their district Personal Learning Plans. Counselors met twice during the year as a group to share resources and strategies. The counselors worked throughout the year for this work and set goals for continuous improvement.
- Perkins funds were used to allow the PTCC Student Success Advisor to complete a certification in the STRONGS assessment.

QUESTION: Did your consortium use Perkins funds to support initiatives to facilitate the transition of sub-baccalaureate career and technical education students into baccalaureate programs? If yes, please describe.

QUESTION: Describe other transition activities (secondary to postsecondary; secondary to work; postsecondary to work), courses, or services you provided. What were the lessons learned from these activities?

- The Pine Tech Consortium partners with the Central MN Work Force Center to develop numerous transition activities for consortium secondary students. These strategies/activities include the following:
- Pre-Employment Transition Services (Pre-ETS): Provided high school students with career and post-secondary exploration assistance, work-readiness training, and skills instruction that will support self-advocacy.
- Higher Education Career Advisor Project (HECAP) and Outreach to Schools (OTS): Provided career exploration, career counseling, job search assistance, college preparation, current labor market information, and research on high demand jobs in areas of interest to youth.

- Youthbuild program in collaboration with Empower Learning Center: Delivered hands-on construction skills training along with leadership development, work-readiness skills, career planning, and exploration to youth at-risk.
- Disability Employment Initiative: Provided individual services for youth with disabilities, ages 14-24, by increasing their participation in career pathways and to help improve their employment outcomes.
- ReImagine Retail Grant: Opportunity for working age youth to gain skills and certifications in Retail Industry Fundamentals, Customer Service, and Hospitality, as well as opportunities for paid work experience placements to gain hands-on work skills.
- In addition to the above specialized grants, students were served on an individual basis through the Workforce Innovation and Opportunities Act (WIOA) and Minnesota Youth Program (MYP). Enrollees into these programs receive a variety of employment and training services, which may include services such as assistance to complete their diploma or GED, work-readiness training, career exploration, technical skills training, job search assistance, paid work experience placement, and on-the-job training.

One of the lessons gained is reflecting on how many of the consortium secondary students are First Generation College. Families need detailed information and support to comprehend the transition and process of the journey from secondary to postsecondary settings.

- PTCC continues to work with local family foundations to increase access to postsecondary education for students in the region.
 - The Frandsen Family Foundation offers 2 years of free tuition and a \$1,000 stipend to students from Rush City, Braham, Luck (WI) and Frederic (WI) high schools to attend PTCC or another approved technical college.
 - A private family foundation supports PTCC's Kick Start Scholarship which allows students eligible for free and reduced lunch during their senior year to attend PTCC for free for one year, plus a \$1,000 stipend.

Goal 5: Sustain the Consortium

QUESTION: What activities were conducted that helped to improve and sustain the consortium? Are you considering changes to your consortium structure to better serve students? If yes, please describe.

- One of the consortium's goals after the audit in 2014 was to develop strategies to strengthen the Pine Tech consortium structure and operation.. Plans were developed in 2017 to pilot monthly meetings between stakeholders that would be entitled the Career Prep Consortium. This consortium structure began meeting in Sept. 2017 and has continued through FY19. The Sept. 2018 Agenda and Minutes from the Career Prep

Consortium meetings are included as attachments, as well as the strategic action plan as outlined by consortium members.

- Consortium Secondary Guidance Counselors meet twice per year to share resources, strategies and pursue established goals. The priority goals for 2018-2020 include improving local district Personal Learning Plans, accessing technical assistance, and practice in utilizing the SLEDS MDE data.
- Numerous meetings at the secondary district level for the purposes of program planning, data review and program approval.

QUESTION: Provide an overview of the consortium leadership team (i.e. are they representing all districts, colleges, business and industry, and other community partners)?

- Representatives from all 6 secondary districts including principals, vocational instructors, guidance counselors, vocational leaders, PTCC administrative staff and the Perkins Coordinators comprise the core of the leadership team. This team met monthly during the school year for updates, goal setting, needs assessment. One goal that the Perkins consortia leaders have for FY20 is to include more business and industry partners in planning and implementation. There is a planned focus on Manufacturing for FY20 that will include a meeting designated to engage industry manufacturing partners.
- The consortium extends beyond the Pine Tech Perkins Consortia to include all concurrent enrollment partners, which has proven beneficial to all parties involved. The Perkins Consortium Leadership team meets 2 times per year for the data review and grant activity planning.
- The Consortium membership list is attached to this report.

QUESTION: Did your consortium use Perkins funds to improve the recruitment and retention of career and technical education teachers, faculty, administrators, or career guidance and academic counselors, and the transition to teaching from business and industry, including small business? If yes, please describe. Yes

- The Pine Tech Perkins Secondary Coordinator worked with all 6 secondary districts to provide guidance and in-service regarding the vocational approval process. Teachers were met with individually and in small groups to complete this process. Administrators and teachers received information and technical support regarding out-of-field licenses and the program approval process.
- Within the last 2 years 9 new vocational programs with vocationally-licensed instructors were added at the secondary level.
- East Central Schools - Health Science, Trade & Industry
- Pine City - Trade & Industry (Mfg. & Transportation)
- Braham - Work Experience

- Mora - Trade & Industry (Auto, Construction & Mfg), Diversified Occupations, Work Experience
- Hinckley Finlayson - Trade & Industry, Diversified Occupations
- 3 additional programs will be submitted in FY20 for vocational approval Business, FCS, Work Experience / Rush City

QUESTION: To what degree does the consortium seek additional grants (federal, state, or local) or braid various funding streams together to support consortium activities? Please provide examples.

- PTCC seeks additional grant funding opportunities on an ongoing basis. An example of this includes the OHE Concurrent Enrollment Grant that was received to establish the Manufacturing and Business Academies (referenced above)

QUESTION: How would the new definition of size, scope, and quality change the way you spent your Perkins funds this past year? What changes will you need to make in your next submission regarding size, scope, and quality?

- We believe that the work done in the Pine Tech consortium is of size, scope, and quality. One potential impact is that our consortium does not meet the requirements of “size” as outlined by Minnesota State. We have submitted a request to Minnesota State to waive this requirement for our consortium as we believe this change would negatively impact our ability to serve our stakeholders.

QUESTION: How is your consortium planning to conduct the comprehensive local needs assessment required for submission with the two-year Perkins V application?

- The CLNA will be discussed at the October Perkins consortium meeting. At this meeting, we will review the requirements, identify stakeholders, and begin developing questions and survey instruments that will be used to gather data.

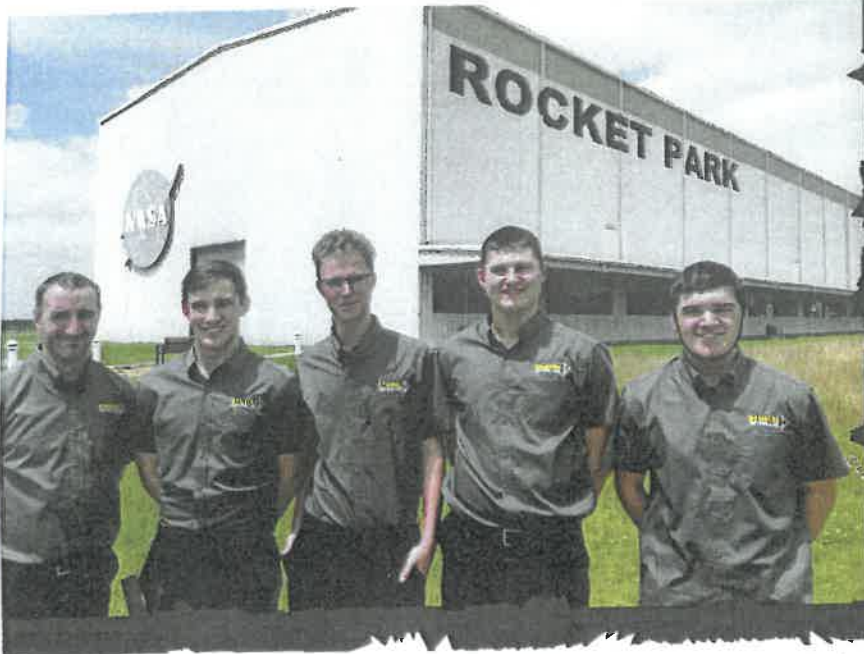
State Staff Review:

Thank you for submitting a well written APR. Your activities , with counselors, to review, update and create POS is well documented. We appreciate the course student data provided. Do you track the student by POS? The MSSC training is a great example of your creative braiding of funding or leveraging Perkins funds. Your Career Prep Consortium goals: expanding CTE access and streamlining the concurrent enrollment process- have been implemented. The additional programs are also well documented. To what postsecondary programs does your WBL program align?

Opportunities:

With the new CTE programs at both the secondary and postsecondary entities, you have an opportunity to strengthen the full POS for the consortium. Just an observation- some of the terminology (school to work, vocational, Tech Prep) has really evolved to be more career and technology focused especially with Perkins V. You might want to review your publications with a lens toward updating language. Your consortium continues to have the opportunity to conduct your CLNA in whole or part and to plan strategies with other consortia. The May 1 plan review will be linked directly to the CLNA including size, scope, and quality.

High School	Consortium	Contact First	Contact Last	Role
Braham Area High School	ECMECC/Perkins	Ken	Gagner	Superintendent
Braham Area High School	ECMECC/Perkins	Amanda	Tessmer	Counselor
Braham Area High School	ECMECC/Perkins	Shawn	Kuhnke	Principal
Chisago Lakes High School	ECMECC	Amy	Malloy	Counselor
Chisago Lakes High School	ECMECC	Dave	Ertl	Principal
Chisago Lakes High School	ECMECC	Dean	Jennissen	Superintendent
Chisago Lakes High School	ECMECC	Mickelle	Pohlman	Special Services
East Central ALC	ECMECC/Perkins	Tom	Hasbrouck	Director
East Central High School	ECMECC/Perkins	Andrew	Almos	Superintendent
East Central Secondary	ECMECC/Perkins	Cassie	Gaede	Counselor
East Central Secondary	ECMECC/Perkins	Stef	Youngberg	Principal
ECMECC	ECMECC	Marc	Johnson	Director
ECMECC	ECMECC	Jenny	Gilman	Administrative Assistant
Elk River School District	ECMECC	Jana	Hennen-Burr	Assistant Superintendent of Educational Services
Elk River School District	ECMECC	Joe	Stangler	Curriculum/Testing
Elk River High School	ECMECC	Megan	Niedfeldt	Counselor
Elk River High School	ECMECC	Terry	Bizal	Principal
Elk River School District	ECMECC	Daniel	Bittman	Superintendent
Forest Lake Area High School		Hayley	Lang	Assistant Principal
Forest Lake Area High School		Jim	Caldwell	Principal
Forest Lake Area High School		Kathy	Ungerecht	Assistant Principal
Forest Lake Area High School		Molly	Bonnett	College and Career Coordinator
Forest Lake Area School District		Steve	Massey	Superintendent
Fridley High School		Carrie	Wrona	Academic Dean
Fridley High School		Kelly	McConville	Assistant Principal
Fridley High School		Patty	Hand	Principal
Fridley Public Schools		Dr.	Kim	Superintendent
Hinckley-Finlayson Empower Learning Center	ECMECC/Perkins	Alyssa	Prater	
Hinckley-Finlayson Empower Learning Center	ECMECC/Perkins	Brad	Jensen	
Hinckley-Finlayson High School	ECMECC/Perkins	Brian	Masterson	Principal
Hinckley-Finlayson High School	ECMECC/Perkins	Katie	Hartl	Counselor
Hinckley-Finlayson High School	ECMECC/Perkins	Rob	Prater	Superintendent
Inver Grove Heights Schools (Simley)		Dave	Bernhardson	Superintendent
Isle High School	ECMECC	Dean	Kapsner	Superintendent
Isle High School	ECMECC	Jeremy	Schultz	Principal
Isle High School	ECMECC	Kate	Scherber	Counselor
Milaca High School	ECMECC	Tim	Truebenbach	Superintendent
Milaca High Schools	ECMECC	Damian	Patnode	Principal
Milaca High Schools	ECMECC	Mary	Hastings	Counselor
Milaca High Schools	ECMECC	Trina	Olson	Counselor
Mora High School (Perkins)	ECMECC/Perkins	Kevin	Nolte	
Mora High School	ECMECC/Perkins	Brent	Nelson	Principal
Mora High School ALC	ECMECC/Perkins	Karen	Felger	Director
Mora High School	ECMECC/Perkins	Craig	Schultz	Superintendent
Mora High School	ECMECC/Perkins	Samantha	Rushmeyer	Counselor
Mora High School	ECMECC/Perkins	Sarah	Ellstrom	Counselor
North Branch ALC	ECMECC	David	Treichel	Director of Teaching and Learning
North Branch Area Public Schools	ECMECC	Deborah	Henton	Superintendent
North Branch High School	ECMECC	Coleman	McDonough	Principal
North Branch High School	ECMECC	Glen	Stevens	Assistant Principal
North Branch High School	ECMECC	Stacy	Redding	Counselor
Ogilvie High School	ECMECC	Mari	Ringness	Counselor
Ogilvie High School	ECMECC	Kathy	Belsheim	Superintendent
Ogilvie High School	ECMECC	Sue	Davis	Principal
Pine City ALC	ECMECC/Perkins	Kari	Hasz	Director
Pine City High School	ECMECC/Perkins	Amanda	Essen	Counselor
Pine City High School	ECMECC/Perkins	Troy	Anderson	Principal
Pine City Schools	ECMECC/Perkins	Curt	Tryggestad	Superintendent
Pine Technical and Community College	ECMECC/Perkins	Denine	Rood	Vice President of Academic and Student Affairs
Pine Technical and Community College	ECMECC/Perkins	Jodie	Klinkhammer	K-12 Partnerships Coordinator
Pine Technical and Community College	ECMECC/Perkins	Kierstan	Peck	Director of Student Success
PTCC Perkins Consortia Secondary School Contact	Perkins	Becky	Maki	Pine Tech Perkins Consortia Secondary Leader
PTCC Perkins Consortia Secondary School Contact	Perkins	Paul	Jackson	Pine Tech Perkins Consortia Secondary Leader
Rogers High School	ECMECC	Jason	Paurus	Principal
Rogers High School	ECMECC	Ryan	Johnson	Assistant Principal
Rush City High School	ECMECC/Perkins	Brent	Stavig	Principal
Rush City High School	ECMECC/Perkins	Janet	Wagener	Counselor
Rush City High School	ECMECC/Perkins	William	Campbell	Superintendent
Simley High School		Jerry	Sakala	Principal
Spectrum High School		Mark	Leland	Principal
Spectrum High School		Mr.	Dan	Executive Director
Spectrum High School		Amanda	Sitron	Counselor
Spectrum High School		Susan	Matheson	School Counselor and Marketing Director
Willow River High School	ECMECC	Bill	Peel	Superintendent
Willow River High School	ECMECC	Gregg	Campbell	Principal
Willow River High School	ECMECC	Kelly	Ketchum	Counselor
Zimmerman High School	ECMECC	Jackie	Brenny	Counselor
Zimmerman High School	ECMECC	Kurran	Sagan	Assistant Principal
Zimmerman High School	ECMECC	Marco	Voce	Principal
Little Crow Telemedia Network	Little Crow	Pete	Royer	Director
Mid-State Education District	MSED	Simoine	Bolin	Director
SCRED/ABE		Sally	Welsh	GED Coordinator
SCRED/ABE		Sarah	Rydberg	ABE Instructor



Team (Left to Right) Luke Becker, Josh Klingensmith, Zack Anderson, Jeremy Brown, Ben Carlson. The building behind is called Rocket Park, location of the only Saturn V Rocket.

A Mission to Space

By Kaitlyn Niska



What can you make in three months with only 150 dollars? Four FFA students at Braham High School created a washing machine for NASA to send on the Orion going to Mars in 2030.

In Houston on April 16, 2019, with other schools from around the nation Braham FFA members presented their washing machine. The group responsible for building a washing machine are Braham juniors, Ben Carlson, Zach Anderson, Josh Klingensmith, and senior Jeremy Brown.

"I told the kids to wash a shirt when these people come up," Braham Agriculture Teacher, Luke Becker said. "It just so happened that the person in charge of NASA's washing machine program, who has been for the past 20 years, was standing over his shoulder watching. She said, 'This isn't the best project here today; this is the best project I've ever seen' and I got tears in my eyes."

Since then, NASA has been in connection with Becker and the students to figure out the next steps of building. They have been sending parts they expect to work in the International Space Station and the group is eager to make it automated. The goal is to have it automated in July, then there's a high probability in 12-18 months the machine will be put in a zero-gravity chamber to test it.

"From day one it was listed as a two-year project and the students were asked to do one of seven steps, they did six of them," Becker said.



The team spent three months and only 150 dollars working on the washing machine for NASA. Unlike regular washing machines, this design uses minimal water, energy and no soap is allowed in the design.

The machine is physically demanding, and the students are figuring out valves mechanically and electronically instead of by hand. Brown is currently working on an electric control system to automate the machine.

Currently this is how the device runs: a t-shirt is put into a bag and then the air is removed from the bag. Five-hundred milliliters of water are introduced to the shirt which creates a vacuum with the shirt, so the water is pumped in automatically without having to do it manually. Next is the agitation phase. A hand-held water pump is used to suck the water in and out of the t-shirt as it squeezes the bag and shirt for agitation. After, another pump is used to

remove the water from the bag. The shirt comes out spin-cycle dry where it can be hung to dry completely.

The students were given a list from NASA different projects they could try and a washing machine was on the list. The group started the project from a vacuum oil pump and now have a prototype that's almost complete and the student have only spent 150 dollars.

"The hardest part was coming up with the first idea, once we got the bag and pump everything else was added on easily," Carlson said.

Every time a piece is added to the machine they would run many cycles to see what specific piece was doing. Accidents and fitment were discovered when they would run these trials, according to Becker.

"I expected us to fail and fall on our face to have a little fun doing it," Becker said.

The group created a working prototype, were the only ones with a working machine at the conference in Houston.

"Failure is always an option and if we would've failed miserably, I would think more or just as much learning would have taken place," Becker said.

The Braham High School's super mileag program gets students involved in machinery, welding and electrical work



“ Failure is always an option and if we would've failed miserably, I would think that more or just as much learning would have taken place. ”



While presenting in Houston the team had the opportunity to get advice from NASA's washing machine program director. She gave suggestions about the design and what to work on next.

The students washing machine project was made possible through this program. Students typically build vehicles, street legal or prototypes, and reach the highest mileage they can possibly get.

A few years ago, the program made a prosthetic foot for Paralympic Medalist, Mike Schultz, who was also a keynote speaker at the 90th Minnesota FFA Convention. This creation got NASA's attention.

"It's pretty easy to get kids excited saying NASA's coming and they want us to build something," Becker said. "We had about 50 students designing washing machines."

The hours invested, trials and errors overcome, and the relationships created with NASA, the students have left their mark. All four guys

got to sign a piece of hardware that's going up into space in roughly four months. Each member plans to pursue a degree in either electrical or mechanical engineering after graduating high school.

This invention started from a bag and a pump and has the potential to go on the first trip to Mars in 2030. According to Becker, to see the students work, parts and pieces they created is mind-blowing and for organizations like NASA to look at students' work and say it's useable, is the biggest compliment.

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JBS congratulates local FFA members on their commitment to the future of agriculture.

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JBS takes pride in its local impact on Worthington & its surrounding communities with over 1 billion dollars paid annually to local farmers for hog procurement and giving back to the communities in which its team members live and work.



Worthington, Minnesota

Pine Tech Secondary Equipment FY19					
Date	Equipment	Program	District	Cost	Quantity
1/17/19	Grizz Band Saw	Mfg	Mora	2640	1
3/26/19	PLTW Versalase	Mfg	Pine City	10508	1
11/12/18	Porter Router	Ag	Rush City	169	1
5/1/19	CNC Plasma Cut	Mfg	East Central	3608	1
5/1/19	Razor Weld Plas	Mfg	East Central	320	1
3/22/19	Ver Band Saw	Mfg	Hinckley Finlayso	657	1
3/22/19	Mitre Saw	Mfg	Hinckley Finlayso	199	1
3/22/19	Jet Drill Press	Mfg	Hinckley Finlayso	840	1
3/22/19	Glide Mitre Saw	Mfg	Hinckley Finlayso	623	1
3/22/19	M18 Pack Out Co	Mfg	Hinckley Finlayso	499	1
3/26/19	Spool Gun	Mfg	Hinckley Finlayso	385	1
3/22/19	Belt Sander	Mfg	Hinckley Finlayso	219	1
3/22/19	M18 Fuel Combc	Mfg	Hinckley Finlayso	1495	5 sets
3/22/19	Sm Angle Grinde	Mfg	Hinckley Finlayso	177	3
3/22/19	Router Table	Mfg	Hinckley Finlayso	219	1
3/22/19	Super Bit Set	Mfg	Hinckley Finlayso	187	1