

Consolidated Annual Report, Program Year 2017 - 2018

Minnesota

Step 3: Use of Funds: Part A

1. During the reporting year, did your state use Perkins funds to develop valid and reliable assessments of technical skills?

No

2. During the reporting year, did your state use Perkins funds to develop or enhance data systems to collect and analyze data on secondary and postsecondary academic and employment outcomes?

Yes

Secondary Data

A secure infrastructure for reporting out all accountability and performance indicator data to consortium leaders and districts is now in place. Current enhancements made during the FY17-18 school year include updating and aligning course codes for our Family and Consumer Science (FCS) and Service Occupations (SO) programs and creating two new summary reports. Both are designed to provide a more efficient evaluation of outcomes and to facilitate program improvement efforts.

The Minnesota Department of Education (MDE) Family Consumer Science (FCS) Specialist worked with a group of stakeholders to align all FCS programs with the FCS framework. Because of this work, there will now be a direct method of measuring the skills, knowledge, and abilities students are learning upon completion of each individual FCS course, and cumulatively across a program. From a data perspective, this means that even enrollment data will be much more consistent, meaningful, and interpretable.

In order to implement the transition to the new codes, it was necessary to collaborate with each of our Student Information System (SIS) software vendors, provide clear communication to each district reporting on an approved FCS/SO program, and provide direct support to districts in need of additional assistance updating the codes within their local systems.

As a further part of the transition planning, an enhancement was added to an existing data submission report. This new element provided additional detail for district users so the users would know exactly which program and course codes were submitted to MDE in comparison with prior years. By providing this immediate feedback to districts, districts are able to efficiently and effectively verify the accuracy of their data and ensure a high level of quality and completeness in the data submitted to the state.

For the purposes of engaging in program improvement discussions, two summary reports were developed and produced this past year. The "Waterline Report" was created with our Consortium Leaders in mind. For each individual performance indicator, the Waterline report displays the consortium outcome as the "waterline" with the outcome for each district within the consortium either rising above or falling below the waterline. Because the consortium outcome is designated as 'the waterline', there will always be districts above and below that mark. However, the relative distance above and below that mark is important to examine, and if there are districts consistently falling below the waterline, and for multiple indicators, then perhaps there is opportunity for problem-solving, professional development, or technical assistance. This report provides consortium leaders with a one-page visualized data summary of each district's level of performance relative to all other districts within the consortium.

The second summary report was created for individual district users with the target audience as high school principals and/or local Perkins coordinators. The "At a Glance" report provides district users with three years of district-level outcome data for each of the Perkins performance indicators, in comparison with the state outcome for that indicator and the consortium outcome for that indicator. Though this report does not display disaggregated student group information, all outcomes are displayed within one page. Thus, high-level program improvement information is able to be examined and discussed efficiently during annual planning meetings convened by consortium leaders and/or as part of a World's Best Workforce team (local student outcome legislation) relative to a district Career and College Readiness planning.

Postsecondary Data

Continued negotiations with technical skill assessment (TSA) providers for the release of individual student scoring information continued in FY18. For the first time, we successfully acquired American Association of Medical Assistants and Precision Exam data. We also contacted SkillsUSA, the American Dental Association (ADA), Project Lead the Way, the Central Regional Dental Testing Service, and the Minnesota Board of Dentistry in an attempt to obtain additional assessment data with mixed results. SkillsUSA has been difficult to communicate with and is now on hold until Minnesota determines how these results fit into the Perkins V environment. The ADA denied access to the data for privacy reasons. Project Lead the Way has not been responsive to the request for data.

Improvements were made to ensure accuracy of Emergency Medical Services (EMS) data, which are now being solicited and received from the source at the student-level, as opposed to aggregate, to ensure we are accurately reporting only concentrators. In an effort to ensure consortia may easily access current or historical data reports, a SharePoint website was created to function as a central data repository. SharePoint lists were created with the intention of easily tracking state-approved Technical Skills Assessments. Also, we performed a mixed-method analysis to determine which TSAs are most important to integrate into our data next. This included analyzing data from the Perkins plans (collected through WebGrants) to see what TSAs consortium leaders are integrating into their plans. This also included performing a survey of consortia leaders that asked what TSAs they are using, and which TSAs seem to be the most informative for their programs.

Consolidated Annual Report, Program Year 2017 - 2018 Minnesota

Step 3: Use of Funds: Part B

1. During the reporting year, how did your state assess the career and technical education programs funded under Perkins IV?

Secondary Approval and Review

Minnesota uses Perkins funds to assess Career and Technical quality programs in three ways: 1) the initial program approval process, 2) a regular cycle of CTE program review and 3) monitoring of Perkins consortia. Minnesota State and MDE CTE leaders jointly conduct monitoring of local consortia. Methodology for program review differs for postsecondary and secondary. Detailed descriptions of the quality assessment strategies are in the Minnesota Perkins IV Operational Handbook found at http://www.minnstate.edu/system/cte/consortium_resources/documents/Perkins-IV-Operational-Handbook-for-FY19-Final.pdf.

Postsecondary Approval and Review

In order to be eligible for Perkins funding, postsecondary CTE programs must receive an initial approval from the Minnesota State academic programs unit (<https://mnscu.sharepoint.com/sites/asa/Resources/Academic%20Program%20Approval%20Diagram.pdf>), be listed in the official program inventory for the Minnesota State career and technical education (CTE) programs and must be assigned a designated CTE approved Classification of Instructional Program (CIP) code.

More information on postsecondary career and technical education program approval is available on the Minnesota State website at <https://mnscu.sharepoint.com/sites/asa/Resources/>

While initial program approval is the responsibility of the Minnesota State system, program review is the responsibility of individual colleges. For all Minnesota State colleges, the review shall encompass all instructional areas and be structured according to discipline, academic program or program cluster, department, or other academic unit. In addition, while the actual process is the responsibility of the college, program approval must meet the accreditation standards of the Higher Learning Commission's (HLC) Criterion for Teaching and Learning. HLC requirements for program evaluation and improvement include the following: "The institution demonstrates responsibility for the quality of its educational programs, learning environments, and support services, and it evaluates their effectiveness for student learning through processes designed to promote continuous improvement."

Secondary Approval and Review

Program approvals at the secondary level are submitted to the Minnesota Department of Education on a five-year cycle (Minn. R. 3505.2400) and must be received prior to November 1 in the cycle year. Although, all districts within a consortium need to submit program information according to the five year cycle schedule, best practice is to submit any program and/or course updates to MDE on an on-going basis so that the most current information is maintained. A current list of approved programs and courses (see Program Approval Database) as well as a copy of the program approval form are posted on MDE's Program Approval website

<https://education.mn.gov/MDE/dse/cte/progApp/>

As part of the program approval process, local site teams are encouraged to use the Rubric for Assessing Career and Technical Education Programs to evaluate their CTE program's strengths and areas for improvement. The rubric is at <https://education.mn.gov/MDE/dse/cte/data/>

This year the secondary local program approval form and process was refined and improvements were made to the components, format, collection processes, as well as internal review and storage processes. Consortia, district-level, and regional trainings on the Program Approval form and process have been provided during professional organization meetings, regional program development meetings and the annual consortia leaders' meeting. MDE staff have also developed training slide presentations and resources providing teachers advice and guidance.

Program approval reviews are conducted on a five-year cycle, therefore, not all 26 consortia submit an updated program approval form each year. In the 2017-2018 academic year, five of the 26 Minnesota Perkins Consortia finalized program approval: Central Lakes, Lakes Country, North Country, Pine to Prairie, and Runestone. These five consortium leaders and their teams worked with secondary state staff to implement the new process, manage logistics, and address technical questions about completion of the form.

Perkins Consortia Monitoring

Minnesota State Colleges and Universities and the Minnesota Department of Education jointly monitor local Perkins consortia to ensure compliance with fiscal and management requirements of the Carl D. Perkins Career and Technical Education Act of 2006, the Minnesota State Career and Technical Education Plan 2008-2016, and the annual extensions, federal and state legislation, rules, regulations and policy. The monitoring review provides an opportunity to meet compliance requirements, but also to provide technical assistance, foster continuous improvement, and develop a better understanding of local performance, operations and issues facing career and technical education (CTE) programs, schools, and colleges.

All 26 Minnesota consortia experienced a monitoring visit within the initial reauthorization between 2010 and 2013. A new round of monitoring began in 2015 using a risk-assessment model to determine when to monitor each consortium. The Minnesota risk-assessment model is based on Office of Management and Budget (OMB) Circular A-133, which provides guidance on evaluating sub-recipient risks. State CTE leadership uses a risk-assessment tool to determine which consortia to monitor each year. The risk-assessment tool helps state CTE administrators determine the priority of consortia we review and the level of monitoring we perform. Risk assessment criteria include target areas that help identify changes critical to assessing a consortium's risk level:

- Fiscal processes and patterns
- Targets met of Performance Indicators
- Evidence of unified planning and decision-making
- Stable leadership/governance
- Service to Special Populations
- Quality Programs of Study and Rigorous Programs of Study
- Technical Skill Assessments in place

Monitoring visits are conducted at a rate of four to six per year. In FY18, we monitored the following six consortia: Central Lakes, Mid-Minnesota, Northeast Metro, Oakland, Runestone, and Southwest Metro.

2. During the reporting year, how did your state develop, approve, or expand the use of technology in career and technical education?

During the reporting year, how did your state develop, approve, or expand the use of technology in career and technical education?

The use of funds for development, approval, or expansion of technology in career and technical education is part of the state-level Perkins plan as well as local plan applications. The development and approval of technology expenditures at the local level follows a local plan of needs assessment, prioritization by the consortium's governance structure, and funding of technology initiatives.

FY18 Perkins grant funding was used to purchase equipment that supported technology-rich environments for CTE programs across the state. Working with their communities and based on recommendations from program advisory committees and teachers, the 26 Perkins consortia include purchases of state-of-the-art technology equipment in their annual plans for continual improvement of CTE programs to meet evolving industry standards in high tech, in-demand fields. These 26 Perkins consortia at the secondary level purchased over 270 pieces of equipment having a value of \$1,000 or more to upgrade skill attainment and provide broader access for students. This equipment is logged into the MDE equipment database and inventory control at the individual school district, the Perkins consortia and the Minnesota Department of Education. : Secondary assets inventory are merged with postsecondary inventory. While the assets are identified as either secondary or postsecondary, a single asset inventory is maintained by each consortium.

Although these purchases added significantly to the availability of equipment in the career and technical education classrooms, other activities such as legislative state grant funds, industry support and donations, as well as sharing equipment costs with other agencies and school districts' capital outlay funds were significant contributors as well. Expansion of the use of technology in career and technical education is a primary example of exemplary use of braided funding – funding that supplements the Perkins allocation with other revenue sources. At the postsecondary level, technology is often partially funded through Perkins allocation and through the Minnesota State leveraged equipment initiative. An example of utilizing partnership donations at the consortium-level, the Minnesota West Consortium Partnership braided Perkins funding and additional private and public funding sources. Industry partners in southwest Minnesota donated approximately \$423,000 in equipment last year to programs at Minnesota West Community and Technical College. Cash donations totaled \$353,740 from a variety of resources, not just industry partners. Minnesota West's total allocation for leveraged equipment (Minnesota State initiative) was \$215,600. This money augmented Perkins dollars to update equipment in power line, diesel, precision machining, power sports, electrical and automotive programs.

The use of technology is employed mainly for three purposes: support for the pedagogy of CTE, development of technical skills development in CTE and technology to provide efficient, effective communication among our consortia and state teams.

Pedagogy

As a means of pedagogical improvement, local consortia continue to expand student access to coursework via the development/implementation of hybrid or blended CTE course work, accessibility through hand-held device use, or online student success and retention systems like StarFish (www.starfishsolutions.com), Hobsons (<https://www.hobsons.com/>), EAB (<https://www.eab.com/Technology/Student-Success-Collaborative/>) or CTECreditMN (<https://ctecreditmn.com/>).

Perkins funding continues to help develop, update, and implement CTE courses delivered through Online College in the High Schools (OCHS) to provide more equitable access and flexibility for the CTE learners. Online College in the High Schools (OCHS) is a unique approach to concurrent enrollment and college transfer opportunities in technical and general education. OCHS was originated by the Pine to Prairie Northland Perkins Consortium to meet the needs for college offerings to high school students in rural high schools in northern Minnesota. High school students earn dual credit while participating online in the high school setting. Special features of the OCHS program include contracted tuition for the 50 participating high schools, dual credit for students, high school student cohort groups in courses, published student achievement data, on-site mentors at each high school and a customized application and registration process. Minnesota State Colleges in northern Minnesota, including Alexandria Technical and Community College, Northwest Technical College, and Northland Community and Technical College offer OCHS courses. Enrollment in OCHS continues to climb every year and now includes students from other Perkins Consortia across the state. For the fall of 2018, 36,000 credits were taken by high school students enrolled from Minnesota schools. While not all of these courses are CTE the full array of offerings may be viewed at <https://distanceminnesota.org/app/custom/marketing>.

The opening page of the OCHS website displays the Minnesota Career Fields, Clusters, and Pathways diagram- What's Your Passion? Know Your Career Options! When students click on a particular field, they learn more about the career field and identify OCHS courses that they should consider relating to that career field. With career counseling services at both the high schools and Minnesota State colleges, students are encouraged to select a potential career field before they choose the OCHS classes in which they enroll. As the Consortium develops a three year rotation of classes for the OCHS program, they are also developing sequences of classes that students can enroll in to start their future in a career pathway. The Consortium created strong online career pathways for Health and Criminal Justice and will continue to work on aligning courses with more career pathways. For more information about OCHS, visit <https://distanceminnesota.org/app/custom/students/ochs/index>.

High Wage, High Demand, and High Technology Equipment

Consortium leaders strive to support their programs with relevant, current equipment that meets industry standards and provides exposure to leading-edge technologies. Evidence of this support includes the use of simulators and virtual/augmented reality equipment like health occupation manikins, virtual business software, and virtual/augmented welding stations. Postsecondary equipment investment included upgrades across many allied health programs to provide programmable equipment for patient monitoring and medication delivery and 3-D printers for many career fields including design, pre-engineering and additive manufacturing. This fiscal year also saw an investment in equipment to serve alternative energy initiatives in HVAC, solar, and wind. It is expected that the availability of advanced technology will encourage student enrollment and lead to long-term growth. To provide more access to students outside of population-dense metropolitan centers, consortia continue to provide and expand the use of the shared mobile labs.

Mobile Tech Labs

Three of our consortia have emphasized taking technology to the students through high-technology, mobile learning labs:

Pine to Prairie: Mobile manufacturing and welding lab trailers house leading-edge technology and are shared between schools in the Pine to Prairie consortium. These labs represent a partnership between Perkins, Minnesota State leveraged equipment funds,, a continuous improvement grant and private industry.

Lakes Country: The Perkins secondary coordinator worked closely with Northland Community and Technical College administrators and faculty to design and obtain funding for two mobile manufacturing labs and two mobile welding labs to be used throughout the consortium high schools. These labs include simulated equipment such as welding stations which can be used without having to be concerned about the normal safety requirements needed when using actual equipment. Also, simulators allow for savings in the recurring costs of having to purchase supplies and materials for the training. During the 2017-2018 school year, 15 schools signed up and used the Mobile Welding Labs and Mobile Manufacturing Labs which impacted approximately 540 students.

The Lakes Country consortium was a similar recipient of Minnesota state legislated grant funds and also used Perkins allocation with private contribution to serve students in that region. Those mobile labs are accessible by 34 rural schools districts with the majority of the activity concentrated in 12 districts. The cycle of usage is still in experimentation as districts adjust teachers, curriculum, and schedules.

Central Lakes: The TechMobile Program at the Central Lakes consortium includes a wide array of Manufacturing, Agriculture, Technology, and BioMed equipment as well as two cargo vans to transport it to area schools. Secondary teachers are offered training in the summer, review the options for equipment that fits into whatever course they are teaching, then revise, and rebuild the curriculum to give students the opportunities to use the equipment as part of that course. Students can use welding simulators, laser engravers, and a variety of 3D printers. There are opportunities for probes and high-tech gadgets in addition to the very large machines. As part of this overall project, students in certain elective courses like Welding, Graphic Design, etc. also can spend time at the Central Lakes College campus using some of their machinery and working directly with their vocational instructors in those programs. Sourcewell (formerly National Joint Powers Alliance) is a major funder of Tech Mobile programs. Sourcewell increased funding for the expansion of the Tech Mobile program to additional school districts in the region.

Continuing to support the convenience and skill development in a safe way, other consortia have examples of supporting simulators or virtual experiences to enhance student learning. Some of the examples are presented below.

North Country Consortium Augmented Reality (AR) Welding Station is an example. An American Welding Society (AWS) grant provided funding to Kelliher High School for augmented reality welding that is used as skill development in a safe way for elementary career experiences all the way through adult education. The \$25,000 grant will be applied for again next year to further enhance and expand the program. Perkins funding was used to obtain an AWS curriculum program for Kelliher and Bemidji High Schools. The curriculum gives teachers direct access to industry-level instruction, resource materials, and Level-1 training opportunities for students.

The other virtual experience provided through Perkins technology resources has been to allow mentoring and virtual job shadow programs. At Dakota County the consortium continued to invest in and use Virtual Job Shadow (VJS) (www.virtualjobshadow.com) at all consortium high schools and at Dakota County Technical College (DCTC) to assist in increasing student awareness of various careers. VJS was used within high school and college courses to strengthen student understanding of career options by hearing real stories from real people working in those fields. There were 550 student users of VJS during FY18.

Minneapolis Public Schools (MPS) also invested in Virtual Job Shadow (VJS), an online career exploration tool, to inspire 7th-12th grade students with real-world career opportunities and connections to core academic and foundational skills through access to over 1,000 professionally-produced job shadowing and career advice videos. This tool empowers students to easily search for career choices by experiencing unlimited job shadowing visits across the spectrum of Career Clusters. Videos and commentary go behind the scenes with real professionals in actual jobs and provide an in-depth look at workforce realities, showcasing what people do in their occupations and the education and skills needed. VJS interest inventories, career research features, and other activities have been embedded in the traditional and non-traditional models of Career Readiness Seminar course in all MPS high schools.

This is not intended to be an exhaustive list of those who support the acquisition of equipment for Minnesota secondary schools, but rather a quick look at the many opportunities that are provided through CTE and the Perkins grant to our teachers and students. With the Perkins consortium model, we are able to include an array of partners and agencies to support secondary program equipment in Minnesota schools and colleges.

Communication: State-wide use of Technology to Serve CTE Stakeholders- Web Communication, Social Media, Grant Management

Both Minnesota State and MDE continue to make improvements in their respective website presence by actively updating web resources to improve services for the CTE community. The CTE website at www.cte.minnstate.edu directs educators to both state websites for useful information on federal and state Perkins accountability, continuous improvement, professional development, and events and activities. Both state websites underwent rebranding projects that provided for a better user experience for visitors to their websites, which includes many college and school district career and technical education teachers and faculty.

The following analytics data indicates that the CTE website serves as a significant resource for CTE educators, Perkins Consortium Coordinators, and the general public. In FY18, there were 62,246 total page views for Minnesota CTE website overall. The top pages five pages viewed on the website include CTE homepage, Directory, Minnesota Programs of Study, Professional Development, Consortium resources,. These can all be retrieved at <http://www.minnstate.edu/system/cte/>

Professional Development page- <http://www.minnstate.edu/system/cte/professionaldevelopment/index.html>. This page received 7,086 total page views for this reporting period. Topics and resources on this page include technical assistance for: 2018 Monthly Webinar Series, nontraditional and special populations, employer engagement, Perkins Leadership Development Initiative, Technical Skills Assessments, conferences and workshops, CTE Works! Summit, consortia coordinators' meeting, events (listed by date). The inclusion of the organized resources has been very valuable to our new leaders and provides resources to share as new initiatives such as Perkins V require additional communication with local stakeholders.

CTE Technical Assistance Web Pages— <http://www.minnstate.edu/system/cte/technicalassistance/index.html>. This page received 1,899 total page views for this reporting period. Topics and resources on this page include technical assistance for: Programs of Study; Technical Skills Assessments; Consortium Administration and Leadership; Secondary Academic Indicators (1S2 and 1S1); Nontraditional participation and completion indicators (6S1, 6S2, 5P1, 5P2); Student success indicators for completion, retention, and placement (5S1, 3S1, 4S1, 2P1, 3P1, 4P1)

Social media usage continues to grow in the educational community as a vehicle to connect and share success stories. Minnesota CTE is doing the same to highlight career and technical education programs at both secondary and postsecondary. We used social media during the FY18 CTE Month activities in February. In addition, the state has moved to a robust communication to our Perkins leader's listserve which serves as a quick update of national, regional and statewide trends, upcoming deadlines for consortia, professional development opportunities and as a vehicle for conversations between Perkins leaders. These communications are sent biweekly at a minimum.

For the past six years, Minnesota has used the Webgrants online system from Dulles Technology Partners, Inc. for Perkins grant management. Our contract with Dulles ends in 2018 and we have contracted with Amplifund to begin using their online grant management product. Several stakeholders from multiple consortia participated in the selection process for the new contractor. Our hope is that the Amplifund system will allow for more efficient Perkins grant management throughout Minnesota and that it will provide a more user-friendly tool for consortia leaders to submit applications and reports.

The CTE unit of Minnesota State continues to support the career advising information on the CAREERWise Education website. CAREERWise is administered by the Minnesota State Workforce Development unit and provides current and prospective college students of all backgrounds labor market information, career profiles, and education program information needed to choose viable career pathways. CTE staff advise CAREERWise staff on implementation of CTE and career pathway priorities within its website content. Meeting topics also include providing feedback on RealTime Talent, a partner organization committed to solving labor force shortages and alignment issues through real time data and employer and workforce engagement, as well as other workforce development and career advising project. The website is <https://careerwise.minnstate.edu>.

3. During the reporting year, what professional development programs did your state offer, including providing comprehensive professional development (including initial teacher preparation) for career and technical education teachers, faculty, administrators, and career guidance and academic counselors at the secondary and postsecondary levels? On what topics?

Perkins funds support the ongoing Teacher Education Series (TES) required by new faculty in career and technical education in our colleges. These courses are offered by Southwest Minnesota State University (SMSU) in a variety of deliver methodologies including summer institutes, hybrid and fully online offerings so that personnel with subject matter expertise and recent occupational experience can be supported, mentored, and gain the class room skills needed to teach and maintain CTE classrooms and laboratories. The SMSU offerings are presented in a Learning Community environment that emphasizes: solution-based problem solving, collaborative learning, current and reflective practice, and promotes professional relationships. It present the opportunity for many of our CTE new teachers to develop a network among the other new teachers. The isolation factor seems to be one of the key elements in our loss of teachers in their first three years of experience especially if the faculty member came from private industry and not an academic background.

Continuing past practice, Perkins funds have been used to provide professional development for Minnesota CTE educators that was planned and delivered collaboratively in many cases by the Minnesota Department of Education (MDE) and Minnesota State. Examples in this section include state-wide Perkins Coordinator's meetings, CTE Program Support on the mechanics and logistics of Perkins grant programs and funds, instructional support for teachers, support for CTE faculty credentialing programs, partnerships and professional conferences, and workshops on discipline-specific programming needs.

Professional development topics for administrators included program size/scope/quality metrics, programming innovation, and workforce data needs assessment. Training activities and discussion opportunities were made available throughout the year with professional meetings, webinars, the statewide CTE coordinators' professional development meeting, and through the consortia monitoring process. The philosophy of continuous improvement was purposefully integrated into the full spectrum of Minnesota Perkins work through local plans, workshops, monitoring visits, and technical assistance. Consortia leaders brought the statewide discussion back to their local governance teams for adapting their own work.

At the state level, professional development also includes a formal mentor/mentee program. This Perkins Leadership Development Initiative was created to address this growing challenge created by the high turn-over rate of our local consortia leaders. That rate has continued to be in the range of 28-33% due partially to retirement but also by the continued swirl of our personnel within the secondary and postsecondary options in Minnesota. We have leveraged the talents of our experienced consortia leaders who have volunteered their time and talent to make this program work. Those subject matter experts are the key factor to the success of this program. There would be no Perkins Mentorship program without them.

The Perkins Mentorship Program consist of the following elements:

Pairing of mentees with mentors

Mentors providing 30 hours of mentorship, which may include face-to-face meetings, phone calls, or web, chat, but the method of communication is not dictated. .

Three face-to-face meetings for all new mentees to gather, network, learn from each other facilitated by state staff.

Formal webinars addressing the major element of our Perkins workflow:

Application

Needs assessment

Annual report

Negotiation of performance targets

Reallocation

Additional webinar topics are provided as appropriate and/or requests such as business engagement/ program advisory committees and recruitment of learners into non-traditional careers.

Encouragement (and funding) for mentees to attend other scheduled activities such as CTE Works!, and their professional meetings (MACTA or MnACTE).

CTE PROGRAM SUPPORT

CTE program specialists at MDE, positions funded in part with federal Perkins funds, provided professional development to CTE educators, counselors, and administrators throughout the year at local schools, as workshop/conference presenters, and at consortium training sessions. Professional development opportunities were regularly communicated to CTE teachers via email newsletters sent by program areas throughout the year. These professional development opportunities included:

Perkins program approval support: program approval logistics; program requirements and continuous improvement; parental and community involvement; rigorous and challenging CTE curriculum; embedding student leadership and career preparation opportunities in CTE programs; use of data on current industry workforce needs; support for CTE faculty credentialing programs.

Instructional support: use of research-based best practices in curriculum alignment to state frameworks and national standards; integration of academics into CTE programs; training for pre-service business and marketing teachers.

Conference/workshop presentations: integration of academics in CTE; developing programs to meet industry needs; integration of science in agriculture; hosting a professional conference on the delivery of personal financial literacy courses; using applied learning to develop academic and CTE technical knowledge and skills.

PROFESSIONAL DEVELOPMENT FOR WORK-BASED LEARNING PROGRAMS

development for operationalizing work-based learning at the school district level continued throughout the state of Minnesota in 2017-2018. A webinar on work-based learning was hosted for consortia leaders, teachers and representatives from industry and other agencies in June, 2018. MDE hosted a Work-Based Learning Coordinator's Summit in October at MDE's Conference facility. The Summit targeted newer (less than three years of experience) work-based learning coordinators and approximately 150 attended. Special presentations to increase statewide awareness and improve delivery of work-based learning were made to the New Charter Center Conference (November, 2017), as well as other conferences like Minnesota Association of Alternative Programs (Mankato, February 2018), Minnesota School Counselors Association (May 2018), and State Approved Alternative Programs (August, 2018).

Near the end of the fiscal year, planning time was dedicated to the development of a contract with Minnesota Partnership for Collaborative Curriculum (ISD 287) to develop Open Education Resources in course modules related to delivering instruction on employability skills. These employability skills modules will be developed by CTE teachers, including work-based learning coordinators. The contract includes training for the teacher curriculum developers in open access license, culturally responsive curriculum, and the Employability Skills Framework. The contract was executed in the 2018-19 fiscal year.

MONTHLY PERKINS WEBINAR SERIES

Minnesota CTE provides consortia members and partners with timely resources for Perkins reporting and new information about improving programs of study through webinars offered each month throughout the school calendar year. These webinars provide participants with opportunities to ask questions and discuss issues with Minnesota CTE leadership members. These online discussions last 30-45 minutes followed by open time for discussion and questions. This year's monthly topics related to administering the Perkins grant:

CTE Overview / Perkins 101

Introduction to Mentor/Mentee Program for New Leaders

Preparing Your Annual Performance Report (APR)

Postsecondary Accountability

Secondary Accountability

Perkins Fiscal Considerations – Secondary & Postsecondary

Welcome to CTE – New Teachers

Perkins Plan Reallocation

Perkins V Federal Legislation Update

Preparing Your Consortia's Perkins Plan

Ensuring Equity in Problem Based Learning

CAREER AND COLLEGE READINESS RESOURCE WEBINAR SERIES

Minnesota Department of Education's Office of Career and College Success developed a Career and College Readiness (CCR) Resource Guide to assist school districts, schools, administration, teachers, and counselors in K-12 CCR programming. A series of webinars were provided to introduce the new resources and offer local stakeholders to discuss and ask questions. Multiple sessions to communicate and distribute the resource guide have occurred with principals, superintendents, CTE teachers and coordinators, students, families, SSB counselors and others. These content sessions were provided through both face-to-face workshops settings and webinars. Session provided content includes:

CCR Resource Guide—Overview

CCR Resource Guide—Domains and Competencies; Program Planning Guide

CCR Resource Guide—Data Inquiry

CTE WORKS! SUMMIT

The 2017 CTE Works! Summit occurred in the fall of 2017 with the goal of connecting the career and technical education community. CTE professionals working in high schools, college and universities, workforce, local business and industry, and community organizations attended the conference. They came together for a morning keynote and afternoon snapshot speakers. There were 32 breakout sessions for sharing evidence-based practices including sessions on building employability skills in students, CTE various content area topics, leadership development, work-based learning, developing apprenticeships, SLEDS data use, and other topics. In addition, there were five mobile learning labs/trailers for participants to review. The conference was attended by 450 participants.

The 2018 CTE Works! Summit was in the planning process with a preconference focus on "Opportunities for Educators," day one focus on "Opportunities in Innovative Practices" and an additional half-day added to focus on "Opportunities in Workforce Partnerships." Event planning includes morning keynotes, 42 breakout sessions, and exhibitor demonstrations. CTE professionals working in high schools, college and universities, workforce, local business and industry, and members of community organizations will attend the conference. The conference location was Northwest in Brooklyn Park and is expected to attract over 450 CTE participants.

CERTIFICATION TRAINING

Four ServSafe Certification workshops were held for over 240 teachers at the Minnesota Association of Family and Consumer Science conference, CTE Works! Summit and two MDE workshops. Teachers were certified to teach and proctor the ServSafe exam and administer to students in the Foundations of Foods/Culinary course, or Culinary I/Prostart I course.

Over 180 family and consumer science teachers were trained during six different sessions on the implementation of Phase III FCS Frameworks and the new electronic program approval process. New revisions and edits of the 2015 FCS Frameworks were shared, including additions of CORE standards and Farm-to-School benchmarks including food systems, food access, food sustainability and food justice. Partnerships were encouraged between school nutrition directors, and school and classroom gardens. The Global Foods course was added as well as Adult Roles and Responsibilities content in the edit. Teachers received professional development on the new and revised Table C listing codes and course titles which align with the occupational focus of the FCS Frameworks and 2017 National FCS Standards that also includes an occupational and employability skills focus. In addition, trainings focused on national recognized technical skills assessment including ServSafe certification and use of TSAs as assessment and program improvement.

A summer institute was held again to provide professional development for high school teachers and college faculty seeking Manufacturing Skill Standards Certification (MSSC) certification. Training in two skills areas was offered: Safety (Machine Shop Safety 625-404) and Manufacturing Processes and Production (Lean Operating Principles 625-403). These sessions were offered in the summer with manufacturing partners and the Minnesota State's Advanced Manufacturing Center of Excellence. As in past years, marketing and outreach were provided by the Minnesota Precision Manufacturing Association (MPMA). Instructors completing the course and the test have access to the curriculum and are able to provide students the level of education and training needed to attain their own industry recognized certifications.

CONSORTIA-LEVEL PROFESSIONAL DEVELOPMENT INITIATIVES

All of our consortia provide professional development at the local level. This may include a summer retreat or institute format to being a series of activities for the year. Often consortia combing resources to serve larger audiences and bring the teachers and faculty in their regions together. Examples of some of the initiatives follow.

The Northeast Metro Perkins Consortium found its most successful professional development initiatives took place by bringing CTE teachers together by career field. The focus of many of these sessions was to establish mentors, create partnerships, and collaborate on needed innovations. Secondary teachers began working on Perkins Program Approval reporting requirements, while postsecondary teachers participated in a multi-year project related to self-study, tool creation and implementation of the Tools for Schools Career Trees and Copy points. The focus of the spring 2018 career and technical education faculty professional development event was the history and effective practices in Programs of Study, and implementing the Career Trees and career planning into program curriculum. At this event faculty also shared effective practices in the areas of non-traditional students, technical skill assessments, building career pathways, student retention, and effective advisory committees.

The Lakes Country Perkins Consortium offered professional development regarding introducing and enhancing work-based learning programs within the consortia. This also included work on Youth Apprenticeships. Two schools have become actively involved in providing apprenticeship opportunities through a local manufacturer, and additional programs are considering expanding their Diversified Occupations programs and considering additional Youth Apprenticeship options to other businesses and industries as well.

The Minnesota West Perkins Consortium convenes CTE teachers by discipline area to provide professional development opportunities. Topics included: use of TSAs for assessing student achievement; linking curriculum to regional industry needs and standards; and delivering high quality and engaging CTE courses. Consortia funds also support teachers in attending discipline-specific workshops and statewide conferences. Faculty and staff at Minnesota West participated in 33 professional development events, and consortia leaders and teachers from Administrative Support, Math, Electrician, Human Services, and Cosmetology programs attended the CTE Works! Summit in October 2017.

Hennepin West provides professional development opportunities to all faculty through multiple resources including Perkins. Examples of relevant professional development include CTE Works, ACTE, MACTA, MnACTE and other professional conferences. In addition, three colleges (North Hennepin Community College, Century and Normandale Community College) provided all consortium concurrent enrollment high school teachers, college faculty networking, training opportunities to assist in complying with legislative, and HLC requirements. Hennepin West also has an annual professional development retreat with topics requested by the teachers and faculty as well as the administration.

4. During the reporting year, how did your state provide preparation for non-traditional fields in current and emerging professions, and other activities that expose students, including special populations, to high skill, high wage occupations?

Minnesota continues to work at statewide, local consortia, and individual student levels to provide awareness of and preparation for nontraditional fields in CTE. Our approaches to providing awareness for nontraditional fields, including special populations, incorporates professional development, seeking and promoting promising practice at the local level, and bringing regional and national models to Minnesota. An example, through curriculum design and in collaboration with the Math instructor, Gordon Parks High School (St. Paul Consortia) students participated in an Electricity course, supplementing the current Agriculture, Foods and Natural Resources coursework. This course aligns to the Electrical Apprenticeship Training Center curriculum and prepares students for direct entry into apprenticeship. Working with the math instructor, cross content strategies is used to apply math concepts in CTE and provide applied learning for students in math as well as explore non-traditional opportunities.

Because the need to expose and support students in nontraditional career options, one consortium for the purpose of researching, developing and implementing programming to support nontraditional students at their secondary districts and colleges and to raise awareness of nontraditional career options through collaboration with local high school districts has hired a nontraditional student support guide. This programming includes the facilitation of mentoring by business and industry representatives, career awareness events, Lean In Circle support groups, and individual interventions with students. Highlights from this past year included a Criminal Justice, Law Enforcement and Paralegal Career Expo and a Women's 'Herstory' event at named 'Unconventional Jobs/Unstoppable Women'.

Professional Development to support preparation for non-traditional fields occurred through multiple forms such as Micromessaging Workshops, Nontraditional workshop with counselors, and workshops for the CTSO leaders. A workshop entitled "Micromessaging to Reach Each and Every Student" was conducted November 1, 2017 for teachers, faculty, and advisors. This was a pre-conference workshop in conjunction with the annual statewide CTE Works! Conference. Participants engaged in activities that helped them understand how their words and actions impact student enrollment, recruitment, retention, engagement, and achievement. This 6-hour workshop focused on identifying the following concerns for their institutions:

Current classroom or recruitment and retention practices

Specific challenges that may be causing inequities in classrooms or institutions

Strategies that can be adopted to improve practices

Developing a plan to create a more inclusive and equitable environment for students

The counselors and career advisors have a very important role in supporting our efforts to call awareness to non-traditional opportunities. State staff provided workshops with data on enrollments, completion, and opportunities for learners to the Minnesota School Counselors Association:

Southeast Division: Nontraditional Careers Workshop, April 2017

Lake Area Division: Nontraditional Careers Workshop, Feb 2, 2018

CTE Works! Statewide Conference, (2017) continued to include sessions to address nontraditional fields and special populations. These included the following:

Making CTE Available to All Students Through Design Thinking Activities

SciGirls Strategies: Engaging High School Girls in CTE and STEM

Supporting Underserved Populations in CTSOs

Changing Perceptions, Shaping Reality: Career Pathways for ALL Students

Promising practices of Local Consortia

At the request of local consortia, State staff compiled a list of promising practices from consortium plans that were having an impact around the state on nontraditional participation and completion of CTE programs. These innovative practices are available on the Minnesota State website for all to see and potentially put into practice. They can be found at <http://www.minnstate.edu/system/cte/technicalassistance/nontraditional-practices.html>

Promising practices implemented by colleges and school districts in Perkins Consortia fit in the categories of career awareness and exploration, counseling and advisement, and professional development.

A focus group was convened to listen to challenges that pertain to nontraditional CTE participation and completion. The outcome of that meeting was an ongoing cohort of consortia interested in improving their nontraditional participation and completion rates. Analysis of data identified gaps in resources and professional development. The group also worked to identify other partners that could support efforts to address non-traditional participation and completions.

Minnesota State Colleges and Universities, in partnership with Minnesota Department of Education (MDE), provided support to the Minnesota Foundation for Student Organizations (MFSO) to move forward with goals for technical assistance to CTSOs to support underrepresented students in CTE. As part of a second phase of technical assistance, the executive director of MFSO received poverty awareness training along with two other CTSO executive directors. Their long-term goal was to provide coaching and training to other CTSO boards regarding the impact that poverty and lack of education has on students and families struggling to maintain or achieve economic stability. Career technical education and support provided by CTSOs has been the major focus around delivering poverty awareness.

During FY18, colleges in the Hennepin West Consortium (HWC) contracted with a consultant to analyze data and develop programming to recruit and retain students in programs that are nontraditional for their gender. The consultant developed extensive programming which was detailed in the FY19 grant application. HWC hosted the third-annual Community and Justice Meet, which was a half-day event focusing on law enforcement, criminal justice and paralegal careers. The event was held on the North Hennepin Community College (NHCC) campus for high school students to explore careers in a variety of career pathways. Students from ten consortium high schools participated in the event. Additionally, college faculty, high school teachers, students and HWC's Nontraditional Consultant presented the results of the program over the past three years at the CTE Works conference in November.

Anoka Ramsey Community College offered a Health Care Careers Camp with a goal of improving nontraditional participation and completion in medical fields. Students rotated among sessions focusing on Nursing (SIM Lab experience), Pharmacy Technology, Physical Therapy, EMT, Alcohol and Drug Counselor, Hospital Volunteer Services, and also toured the neighboring assisted living facility to explore opportunities for health care occupations in that setting.

For FY18, Perkins jointly funded a Nontraditional Student Support Consultant to research, develop and implement programming at Hennepin West Consortium colleges in support of students in programs that were nontraditional for their gender. Programming included Lean-In Circle support groups, career awareness events, and individual interventions. The consultant collaboratively organized the 3rd annual Criminal Justice and Law Enforcement event held at North Hennepin Community College and implemented Hennepin Technical College's Unconventional Jobs: Unstoppable Women event offered to local Girl Scout troops from the northwest suburbs.

5. During the reporting year, how did your state provide support for programs for special populations that lead to high skill, high wage and high demand occupations?

Minnesota used a variety of strategies to provide support for programs for special populations that lead to high skill, high wage, and high demand occupations. Strategies included hosting an Employment Capacity Building Cohort, implementing a special populations portal for student planning, providing professional development to new teachers, and emphasizing equity in the STEM opportunities. Leadership funded activities, as required, are documented below as well.

Employment Capacity Building Cohort

During 2017-18 the Minnesota Department of Education again hosted an Employment Capacity Building Cohort (ECBC) of 20 new and returning school districts. The goal of the ECBC project is to provide career connected learning practitioner guidance to key special education staff from a large cross section of school districts across Minnesota to assist the state in continuing reaching its annual Olmstead goals of work experience placements of a targeted number of special education students. Each district sent teams of five people, including the special education director, work-based learning coordinator(s), the district's vocational rehabilitation representative, and Department of Human Service's case manager. MDE's CTE work-based learning specialist partnered closely with the MDE transition specialist who provides leadership to five meetings over the course of the school year. At each meeting, teams received training, resources (such as the Advisory Committee Handbook, the Employment Resource Guide and Employer Engagement Workbook) to take back to their districts, and strategies to use with special education students. The teams learned how to implement career awareness, exploration and preparation programs with their students. The programming included a work skills training event for special education work-based learning coordinator teachers in February 2018. The ECBC effort continues to encourage the use of career information systems with the ability to track school district delivery of Pre-Employment Training Services (Pre-ETS), including MCIS, which recently implemented the MCIS SPED version. The ECBC program continues in the 2018-19 academic year with the yearlong focus on work-based learning in competitive, integrated placements.

To continue the development of across agency partnerships for work-based learning and transition, representatives from the Minnesota Department of Education (WBL Specialist and Transition Specialist), Vocational Rehabilitation, Department of Employment and Economic Development and Department of Human Services attended facilitated work sessions by MMB to help identify common goals and differences in terminology and processes between agencies.

to Career Technical Education for special education students (ACTE-SPED) aid for contracted services and equipment: A significant amount of effort this year went into reviewing work-based learning programs for students with disabilities both for quality and for the appropriate use of aid for contracted services. This was a continued response to new federal legislation (WIOA and Olmstead) that went into effect in June of 2016. The state process for approving aid to increase to Career Technical Education for Students with a Disability (ACTE-SPED) via contracted services is that districts submit a pre-approval form, along with a copy of the service provider contract. Technical support and professional development workshops along with new pre-approval forms were created to encourage districts to align contracted training services with an individual student's targeted career pathways or the specific competencies to be targeted by the training. Specific regions of the state (for example, Rochester/South East Consortia, Anoka/Hennepin), requested and received more technical support in response to new legislation, or in some cases, staffing turnover. The CTE work-based learning specialist, in collaboration with MDE's transition specialist, provided more in-depth consultation and workshops to help school districts redesign their work experience offerings in alignment with CTE career pathways. Particularly noteworthy were in-depth consultations with Northland SPED collaborative, special education in school districts surrounding Redwood Falls, and the St. Cloud School District. A presentation explaining the changes in legislation and how they impact work-based learning was also made at the SPED Director's Forum in September, 2017. In NE metro Consortia at the secondary level there was a mini roll-out of MCIS SPED that was used in half of the schools. They highly recommended adding the SPED component throughout our secondary schools. All schools now have access to this program with training happening in September. Special education students are able to be supported with career decisions, current employment information, planning resources, and assessment tools for identifying interests to a wide variety of careers. Additional work of this consortium included support student transitions through:

Building Post-Secondary relationships with 10 top feeder secondary schools

Coordinating Admissions and Access Services during enrollment presentations to partnering high schools

Meeting with school counselors to share strategies and opportunities

Supporting career exploration opportunities with employment in the community

Collaborating with access services to communicate workshop dates and resources to students with disabilities transitioning from high school to college

Special Populations: Teacher Training

The 3rd Annual Teacher Cadet Training was attended by 8 teachers and faculty from St. Cloud State University, who used a MDE "Grow your Own" grant to align the Teacher Cadet curriculum with the Introduction to Education course at St. Cloud State University. The trainings of faculty resulted in Phase I of work toward concurrent credit for students enrolled in Teacher Cadet/Education and Training course. The Teacher Cadet program focuses on recruiting students of diversity, students on free and reduced lunch, students first in family to go to college and males interested in working with young children. In addition 8 more teachers were trained during the summer in a 3-day intensive program. The Teacher Cadet program not only addressed the teacher shortage problem in Minnesota and the United States, but also through obtaining college partnerships to close the achievement gap by providing mentoring, financial aid resources, loan forgiveness programs, and help in transitioning successfully to post-secondary options through the close college partnerships.

Leadership Funded Projects

Leadership Funded Project to benefit nontraditional participation and special populations totaled \$60,000 as per the Federal Act. Project from FY2015-2017 included such projects as

Recruitment, Retention, and Employment Initiatives:

Advance IT Center of Excellence partnership with St. Paul College

Centers of Excellence Collaboration: STEM Exploration

Saint Paul College

Century College

Saint Cloud State and St. Cloud Technical & Community College

STEM and Equity in CTE Training/Professional Development

Institute for Women in Trades, Technology and Science

National Alliance for Partnerships in Equity

Minnesota Foundation for Student Organizations

Pathways Career Success Strategies

The State Leadership set-aside funds (\$60,000) are used for nontraditional training for services that prepare individuals for nontraditional fields. The Recruiting Special Populations set aside (\$50,000) is used for recruiting special populations to CTE.

6. During the reporting year, how did your state offer technical assistance for eligible recipients?

Perkins funds were used for technical assistance provided by CTE state leaders who offered tailored guidance for local Perkins Consortia leaders to assist in answering a specific need or question. Technical assistance is delivered for a short, pre-determined amount of time via meetings (in-person, webinar or telephone), e-mail communication, or referral to internal or external internet resources in order to help consortia address a specific issue or accountability indicator. The MN Perkins IV Operational Handbook is a resource for most technical assistance topics and practices.
http://www.minnstate.edu/system/cte/consortium_resources/documents/Perkins-IV-Operational-Handbook-for-FY19-Final.pdf

Perkins Technical Assistance Webpage

Perkins fund were used to manage and maintain the Perkins Technical Assistance webpage found at <http://www.minnstate.edu/system/cte/technicalassistance/index.html>. The technical assistance webpage provides contact information for Consortia seeking customized technical assistance. Topics and resources on this page include technical assistance for programs of study, technical skills assessment, consortium administration and leadership, secondary academic indicators (1S1 and 1S2), non-traditional participation and completion indicators (6S1, 6S2, 5P1, 5P2) and student success indicators for completion, retention and placement.

FY18 Examples of Technical Assistance Delivery

State staff provided nontraditional, STEM equity toolkits and other resources to consortia leaders upon request and also provided timely announcements, nontraditional resources referrals, and equity news bi-weekly via our Perkins leaders' listserve to all consortia leaders. In coordination with Minnesota's Perkins Consortia Leaders' Mentorship Program regional meetings, follow-up sessions were provided to new consortia leaders specifically addressing challenges to nontraditional careers and resources to overcome them. Resources provided included Design Thinking for nontraditional CTE recruitment, improvement plan review and assistance, as well as action steps for nontraditional recruitment and retention.

The 2017-2018 CTE Monthly Webinar Series included a number of webinars specific to the topic of nontraditional participation and special populations. "Gender Equity Tune-Up on Nontraditional Awareness, Recruitment and Partnerships," and "Pathway to Action: Improving Nontraditional Performance using SMART Goals" were the subjects of two of these webinars.

Perkins Funds were used for technical assistance offerings lead by CTE state specialists for a variety of customized topics. Consortium leadership were offered technical assistance, generally delivered via meetings (in-person, webinar, or by phone) or through electronic means (email communication, referral to internet resources) in order to address a specific issue or accountability indicator. Local Perkins Consortium leadership have frequent direct contact with secondary and post-secondary state CTE leadership in order to customize technical assistance for the region or district within the state.

MN State utilizes Perkins grant funds to host a website for Perkins Grant Technical Assistance which provides guidance on topics and resources including:

Programs of Study & Career Pathways

Consortia Administration and Leadership – Consortium Membership, Roles, and Responsibilities

Technical Skill Attainment

Professional Development

State Perkins Plan – including the forthcoming Transition Planning

Secondary Academic Indicators

Non-Traditional Participation and Completion Indicators

Student Success Indicators for Completion, Retention, and Placement

Alignment to WIOA and state ESSA plans

Required and Permissive Uses of Funds

Governance Changes

Facilitating Collaboration

Cash flow Management

Performance Indicators

Data Diagnostics - logistics of the data collection and submission process

Secondary school districts entered the second year of a revised local program approval process, which necessitated technical assistance for teachers and local leaders who are now more directly involved in the reporting and application process. Teachers received assistance on licensure issues, course alignment, and use of advisory committees. Technical assistance was provided via phone and email, and also through training sessions organized by consortia leaders in content area groups. These training sessions provided opportunities for state staff to address teacher questions about program components and assessment of program quality, as well as discussions on future professional development needs.

Technical Assistance was also provided to districts around data collection. The MDE has updated all the FCS course codes this part year. Now, all FCS course codes are aligned with the FCS Frameworks and represent specific skills and abilities students are learning upon completion of FCS courses. Doing this work meant collaborating with each individual student information system vendor within the state in order to update the codes within their system, updated course codes were provided to districts with an approved FCS program, webinar presentations, and numerous follow-up conversations with districts were also provided in order to navigate a successful transition into the new course codes and to ensure the accuracy of the data reported to MDE.

State staff provided assistance to local teachers and administrators on teacher licensing and credentialing. Minnesota's change to a new "tiered" licensing system and the change in governance (now Professional Educator Licensing Standards Board—PELSB) created many opportunities to answer questions impacted by teacher licensure. CTE programs at the secondary level are required to have a specific credential/license to teach and to receive Perkins funds.

a monitoring visit, MDE staff identified a lack of general work-based learning programs in a Metro Consortia. In response, MDE Work-based learning specialist invited the secondary consortia leader to tour Wright Technical Center in Buffalo, a consortia with a developed offering of a variety of work experience programs. Following that program, MDE's work-based learning specialist was invited to present on information program approval for work-based learning programs. Approximately 25 work-based learning coordinators (both general ed and special ed) were in attendance for an all-day program.

CTE leadership in Minnesota understands that technical assistance, much like professional development, is a comprehensive, sustained, and intensive approach to improving educators' and workforce professionals' effectiveness in raising student achievement. Minnesota CTE leaders at the state provide career and technical education members and partners with current, relevant information needed to advance CTE in the state. Monthly webinars are facilitated by state staff, CTE consortia leaders, and other subject-matter experts which include topics such as

CTE Consortia Leaders and Teacher Development Initiatives

Nontraditional and Special Population Students

Employer Engagement

CTE Diversity & Equity

CTE Frameworks Table C program code alignment

Program Approval Applications for secondary CTE programs

Charter Schools:

Charter schools with approved CTE programs participate as active members in local Perkins Consortia. On an annual basis, MDE's CTE staff provide professional development on a variety of topics to public charter and alternative schools in MN. Charter school staff often participate in state as well as local district or regional professional development opportunities and access technical assistance services provided by State CTE Staff. Staff have assisted Charter school staff with program approval and advisory committee development. Any consortia plan or monitoring visit would include educators and administrators in those processes.

Professional Development and Technical Assistance has focused on work-based learning as a tool to help students become career and college ready. The MDE career development specialist provided technical support to charter and alternative schools on the topic of Creating a District Career and College Readiness program at the following conferences: New Charter Center Boot Camp, State Approved Alternative Programs and Minnesota Alternatives Programs.

7. Serving individuals in state institutions

Part I: State Correctional Institutions

Amount of Perkins funds used for CTE programs in state correctional institutions:

32950

Number of students participating in Perkins CTE programs in state correctional institutions:

24

Describe the CTE services and activities carried out in state correctional institutions.

Minnesota Career Education Council (MN DOC): Implementing the World's Best Workforce. Proposed grant activities will include facilitating a two-day Effective Teaching Strategies in-service specifically designed to help MCEC high school and career technical teachers develop the skills needed to ensure rigor and relevance in their curricula; the identification, purchase and implementation of new tiered math interventions to better support students who are not meeting the state's high standards; the implementation of the ACT National Career Readiness Certificates (NCRC) and National Center for Construction Education and Research (NCCER) Certifications; and implementation of a pilot Integrated Education and Training (IET) program to allow MCEC adult learners to be dual enrolled in secondary literacy classes and a post-secondary career tech program with the outcome of concurrently earning both their secondary and post-secondary credentials.

Part II: State Institutions Serving Individuals with Disabilities

Amount of Perkins funds used for CTE programs in state institutions serving individuals with disabilities:

29596

Number of students participating of Perkins CTE programs in institutions serving individuals with disabilities:

45

Describe the CTE services and activities carried out in institutions serving individuals with disabilities.

Minnesota Diversified Industries (MDI) - Work Skills 101, a pilot training program provided an opportunity for adolescents and MDI's employees to grow both personally and professionally. The program was delivered in an integrated setting in which individuals without identified disabilities learn side-by-side with people who have disabilities. Break-out sessions will provide opportunities for customized learning, targeting individual needs and aptitudes, and incorporating the benefits of small-group discussion/activities.

Autism Works/Hennepin Technical College (HTC) - Pilot Interview Skills Program. The project I conducted training for autistic- spectrum students on the HTC campuses Brooklyn Park and Eden Prairie in the 2017-2018 academic year. As a result of the interview skill training, students demonstrated improved presentation skills and experience an increased number of successful job placements. The project also provided in-service training to HTC and Vector staff about the social skill challenges which impact the job search success of students on the Autism Spectrum. As a result of this training, school staff are better equipped to provide continuous support to students to reinforce their learning from the interview skill intensive program.

8. During the reporting year, did your state use Perkins funds to support public charter schools operating career and technical education programs?

Yes

Charter schools with approved CTE programs participate as active members in local Perkins Consortia. On an annual basis, MDE's CTE staff provide professional development on a variety of topics to public charter and alternative schools in MN. Charter school staff often participate in state as well as local district or regional professional development opportunities and access technical assistance services provided by State CTE Staff. Staff have assisted Charter school staff with program approval and advisory committee development. Any consortia plan or monitoring visit would include educators and administrators in those processes.

9. During the reporting year, did your state use Perkins funds to support family and consumer sciences programs?

Yes

Minnesota Perkins funds provided support for professional development of over 250 family and consumer science teachers, the Teacher Cadet programs at the secondary level, a summer career pathways Institute focusing on Early Childhood Education and Teaching and Training, and technical assistance on an on-going basis. Much work has been done to revitalize curriculum including alignment of standards with summative and formative assessment within the current classroom curriculum as well as connecting STEM and STEAM standards and 21st Century Skills throughout program delivery. Further descriptions of some of these activities are provided.

One-hundred forty-four Family and Consumer Science (FCS) teachers were trained in six different trainings on the implementation of Phase III FCS Frameworks and the new electronic Program Approval process. Edits and revisions of the 2015 FCS Frameworks were shared, including additions of CORE standards and Farm to School benchmarks including food systems, food access, food sustainability and food justice. Partnerships were encouraged between school nutrition directors, and school and classroom gardens. The Global Foods course was added as well as Adult Roles and Responsibilities content in the edit. Teachers received professional development on the new and revised Table C licensure codes and course titles which align with the occupational focus of the Family and Consumer Science Frameworks and 2017 National Family and Consumer Science Standards which also includes an occupational and employability skills focus. In addition, trainings focused on national recognized technical skills assessment including ServSafe certification and use of TSA's as assessment and program improvement. We continue to encourage alignment of standards with summative and formative assessment with current classroom curriculum as well as connecting STEM and STEAM standards and 21st Century Skills throughout program delivery.

The Family and Consumer Science area continued the Teacher Cadet program for secondary students interested in the field of teaching to address the need for diverse teachers and address the rising teacher shortage in Minnesota. Eight more teacher and faculty members were trained in an intensive 3 day training to implement the Teacher Cadet curriculum. This program may now be offered for elective college credit through Minnesota State. The Teacher Cadet program focuses on recruiting students of diversity, on free and reduced lunch, first in family to go to college and males interested in working with young children. The program has a strong experiential learning component including job shadowing, campus visits, and field experiences as well as best practice, student engaging teaching techniques and project based assessments. A total of 60 teachers trained in an intensive 3 day training to implement the Teacher Cadet curriculum. This program will be offered for concurrent college credit in specific colleges. The program has a strong experiential learning component including job shadowing, campus visits, and field experiences as well as best practice, student engaging teaching techniques and project based assessments.

Family and Consumer Science held the 1st Family and Consumer Science Summer Career Pathways Institute focusing on Early Childhood Education and Teaching and Training. The conference was attended by over 80 participants, presenters and exhibitors. Experiential learning strategies were highlighted, emphasizing the Early Childhood Education and Education/Training career pathway. The focus of the Institute was on strategies and opportunities that address the teacher shortage and skills gap of these career pathways by raising the rigor and accountability through an occupational focus. Keynotes included state experts in both fields, as well information on Technical Skill Assessments (TSA's) and industry credential information to earn the nationally recognized CDA credential. Time was allotted for two and four year college representatives to visit with teachers and connect for future collaborations of available programs to embed student career exploration and career readiness of programs offered at the post-secondary level. The lunch panel highlighted business and industry partnerships which focused on action steps needed to address the teacher shortage along with information on scholarships available for our students. Breakouts and interactive round table discussions highlighted best practice teaching strategies around alignment of standards and practice with the 2017 revised Family and Consumer Science Frameworks. Emphasis included the program approval process for federal Perkins funding and state CTE levy funding. Breakouts highlighted Family and Consumer Science initiatives including:

*Teacher Cadet Updates and trainings.

*Embedding student leadership components including FCCLA and Educator's Rising.

ideas. *Career readiness, career explorations, and experiential learning

*Best practice teaching strategies.

New Family and Consumer Science initiatives and professional development and trainings across Minnesota encouraged teachers to improve their Foods courses by focusing on an occupational, career pathway of Culinary and Hospitality. Teachers were encouraged to embed the new occupational focused Family and Consumer Science Frameworks, career content, experiential learning experiences and ServeSafe credentials in their Foundations of Food Preparation level, as well as incorporate Prostart into their advance culinary courses, who partner with Hospitality Minnesota chefs.

The Child Development field was encouraged to create a career pathway including Child Development and Early Childhood Education, which embeds a student led preschool experiential learning experience. The Teach/Train career pathway could be the capstone courses in this Human Services pathway. Teachers were encouraged to incorporate a technical skill assessment instead of the comprehensive final exam they have given in the past.

Family and Consumer Science Specialist and Business/Marketing Specialist teamed to provide Financial Literacy training in the NextGen curriculum to over 60 FCS and Business teachers at MDE at the 1st Annual Financial Literacy Training.

10. During the reporting year, did your state use Perkins funds to award incentive grants to eligible recipients for exemplary performance or for use for innovative initiatives under Sec. 135(c)(19) of Perkins IV?

Yes

Minnesota State continued the Career Pathway Continuous Improvement (CPIP) Initiative in FY18 to provide grant funds to consortia as they reevaluate Programs of Study, participate in regional Career Pathway implementation, assess program advisory boards, update experiential learning programs, and otherwise advance Career & Technical Education within local secondary, postsecondary, and workforce areas. These grants of up to \$20,000 enable local consortia to be innovative and transformative as they work to ensure quality CTE programs are in place for all Minnesota students. To qualify for the grants, consortia plans must meet one or more of the following outcomes:

Aligning and supporting CTE work with local, regional, and/or statewide economic initiatives

Developing Minnesota's talent pipelines for economic growth and workforce development with business and industry partners

Developing and providing WorkBased Learning or Youth Apprenticeship experiences including engagement of business and industry partners

Increasing nontraditional student participation

Analyzing, updating current, or adding new CTE Programs of Study and Rigorous Programs of Study including course sequence, career exposure/academic advisement/transition support, integration of math and reading academic standards (1S1 & 1S2), innovative teaching and learning strategies, and collaboration.

The majority of the ten CPIP projects researched, reviewed and assessed their current programs of study involving their local economic development councils, workforce centers, community based organizations, and business and industries. The results of that work set a foundation for the comprehensive needs assessment required in Perkins V.

11. During the reporting year, did your state use Perkins funds to provide career and technical education programs for adults and school dropouts to complete their secondary school education?

Yes

ABE partnerships continue to work to assist adults and school dropouts to complete their secondary school education. These partnerships often reflect combined resources to provide curriculum, support, and sometimes equipment to assist the learners.

13P. During the reporting year, did your state use Perkins funds to provide assistance to individuals who have participated in Perkins assisted services and activities in continuing their education or training or finding appropriate jobs?

Yes

Local consortia support personnel who provide guidance to job search activities, writing resumes and practicing interviews. In addition, local consortia work with their local workforce center to refer services in continuing learner training or job search and placement.

At the State level, to provide professional development, technical assistance and networking opportunities, a Career Advising Liaison team has been formed. The Career Advising Liaison team is a 10-person committee co-lead by a Minnesota CTE staff person and Minnesota State's senior system director for workforce development. The team meets monthly to support some of the strategic priorities of CTE and Minnesota State's Academic and Student Affairs, namely to eliminate opportunity gaps, improve student learning outcomes, increase degree completion, and collaborate to achieve a high quality education by supporting the discrimination and use of relevant, quality career information on Minnesota State campuses. Representatives from university and college career services departments are active members of the team. Several campuses report using Perkins funds to support their career services staff and/or pay for software or other resources used to improve employment outcomes for technical program students and graduates. The liaison team hosted two meetings with career services leaders in FY18 from across the system. One meeting with career services directors assessed how CTE and other system office departments could better support campus activities around employer engagement, career readiness for students, and internship and employment placement. The other meeting was a professional development workshop for career services staff that included a session on providing culturally competent employment resources for students and alumni.

Consolidated Annual Report, Program Year 2017 - 2018 Minnesota

Step 3: Use of Funds: Part C

1. During the reporting year, how did your state provide support for career and technical education programs that improve the academic and career and technical skills of students through the integration of academics with career and technical education?

Academic Integration in Business/Marketing Programs: The state program specialist for Business and Marketing Education provided training across the state on new course development and alignment with the Business and Marketing Frameworks which were developed in 2016-17. Business and marketing teachers received professional development on understanding the new frameworks through presentations to Perkins consortia members and to CTSO advisors during fall conferences.

Through these training sessions additional framework needs were identified:

More frameworks are needed for courses currently offered in many business programs across the state

More frameworks are needed to lead the development of new and advanced courses to be added to the Table of Career and Technical Education Programs and Licenses (Table C)

Greater emphasis on integration of math and reading standards within business course construction is needed

Frameworks and Table C need greater alignment

Frameworks need greater organization to aid in career pathway development

Typing, grammatical and numbering errors were identified

A work plan was organized to begin on July 1, 2018 for framework development and revision based on these needs. The new and revised frameworks will be finalized and distributed during the 2018-19 school year.

Academic Integration in FCS programs: The 2015 FCS Frameworks were edited in 2017 to include the Common Core State Standards (CCSS). With the focus on college and career readiness, the Common Core State Standards are embedded and taught through FCS course content. Building on the best of existing state standards, the CCSS provide clear and consistent learning goals to help students prepare for college, careers, and life. Direct concrete math and language arts proficiencies are applied in all FCS course content and are visible through the program approval process, which includes syllabi showing embedding of academics through CCSS. New revisions and edits, including the addition of Common Core State Standards, were shared during six trainings of Phase III, FCS Frameworks to 142 FCS teachers in 2017-18. ProStart, ServSafe and Food Science are heavy in applications of Science and Reading standards in the Common Core State Standards.

Academic Integration in Health programs: Though the use of the Health Science Frameworks, MDE encourages teachers to create curricula which blend academic subject areas into health science coursework. Health science pathways in Minnesota offer integrated curricula that connect challenging, often dual-credit coursework to career-based technical concepts and applications. An example of this can be found in Biomedical Science coursework where there are science (biology), mathematics (Algebra 1) and health (biomedical) academics integrated into a course while students learn about typical activities in various health-related jobs and also identify potential careers that match their interests, strengths and goals. The Minnesota Health Science Framework provides curriculum standards that are cross-walked and aligned to the Minnesota academic standards. The cross-walk allows teachers to clearly identify where academic standards are integrated into their curriculum.

Academic Integration in Agricultural Food and Natural Resource (AFNR) Programs: Minnesota AFNR teachers have access to training on the implementation of the AFNR Frameworks. Workshops were provided at four locations and more than 100 teachers participated in them. Math, science and reading standards are embedded into the frameworks in each section. The Frameworks are cross-walked to the Minnesota Science Standards for grades 9-12, which allows Agri Science courses to provide science credit toward graduation. The AFNR frameworks were developed using lead AFNR teacher experts in each AFNR career pathway.

2. During the reporting year, how did your state 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.

Minnesota's work to implement and leverage our Perkins grant is dependent upon partnerships. "Individually, we are one drop. Together, we are an ocean" – Ryunosuke Satoro. These partnerships are sometimes a blend of our secondary staff with an agency or institution or our postsecondary with an agency but usually both secondary and postsecondary staff, consortia members as well as an external stakeholder form the partnerships. Some of the exemplary examples are provided.

Marketing and Business Administration Research & Curriculum Center (MBA Research)

MDE utilized Perkins funds to purchase a membership subscription to research and instructional resources for business and marketing teachers throughout Minnesota through the MBA Research organization. MBA Research is a consortium of states that provides leadership to improve curriculum, instruction, and assessment in business and marketing education, and to improve technical skill attainment. Minnesota utilized the MBA Research membership to provide research-based materials to assist teachers in the development or improvement of course offerings aligned with research and standards. (<https://www.mbaresearch.org/>)

BestPrep Nonprofit Organization

BestPrep is a Minnesota-based nonprofit organization that offers programs that bridge the gap between classroom learning and workplace skills. MDE has maintained an ongoing relationship with the BestPrep organization, which provides curriculum resources and mentoring programs to assist in the development of career and college-ready students. The business education specialist serves on the BestPrep board as a liaison to inform BestPrep leadership on opportunities for CTE alignment and further programming development. The business education specialist facilitated multiple meetings between BestPrep and leaders from the DECA and BPA student organizations aimed at greater coordination of student leadership development activities. (<https://bestprep.org/>)

NextGen

MDE utilized Perkins funds and private grant funds to partner with the NextGen organization to host a Personal Financial Literacy workshop for business and family and consumer science teachers. Participants discussed curriculum elements, best practices, connections to experiential learning, and had opportunities to take part in product demonstrations from several curriculum vendors. The goal of this partnership was to increase teacher preparedness to develop and deliver personal finance CTE courses.

(https://www.ngpf.org/?gclid=EAlalQobChMxYvf3eup3wIVAhppCh3VjgLUEAAYASAAEgItY_D_BwE)

Minnesota School Leadership

MDE staff partnered with school leadership across Minnesota to develop the Career and College Readiness (CCR) resource materials. This process included multiple stakeholder meetings and a taskforce made up of school leaders in career and technical education. This project is now complete and the resource is ready for distribution.

(<https://education.mn.gov/MDE/dse/ccs/>)

Minnesota Agricultural Education Leadership Council and Minnesota Association of Agricultural Educators

MDE and Minnesota State staff participated in the development of the Minnesota Agricultural Education Leadership Council (MAELC) five-year strategic plan. MAELC held regional stakeholder meetings across Minnesota and then brought together a stakeholder group to distill the recommendations that came out of the regional meetings.

(<http://mn.gov/maelc/>)

MDE staff coordinate professional development opportunities with their allied career and technical education professional organizations. The Minnesota Association of Agricultural Educators (MAAE) worked with MAELC and MDE to provide teacher workshops in Agriculture Mechanics safety and management, Welding technology, and Briggs and Stratton engines. Through these workshops more than 60 Minnesota AFNR teachers updated their curriculum and learned techniques to bring career exploration into their classrooms. Minnesota hosted three CASE professional development workshops in summer 2018 – including Introduction to AFNR; Food Safety and Processing; and Natural Resource Science. These workshops required a partnership with our Minnesota State college programs as hosts and facilitation and support by our Minnesota State Agriculture Centers of Excellence.

Minnesota Department of Employment and Economic Development

MDE and Minnesota State staff partnered with the Minnesota Department of Employment and Economic Development (DEED) on the DEED PIPELINE Project. The Pipeline project is designed to identify opportunities for employment and to address the critical needs for employee training in each area. DEED has identified Health Care, Information Technology, and Agriculture as three areas for development within this PIPELINE project. This is an ongoing project that encompasses a multi-year effort.

In addition both secondary and postsecondary advisory committee extend invitations to DEED staff to serve. The consortia governance structures of several consortia include DEED personal as participants. There are local agreements to have DEED staff provide references and resources for college students as they enter programs, during their participation in programs, and as guides as learners seek employment and continued education.

As partner in the state's WIOA plan, Minnesota State and Minnesota Department of Education serve on the Governor's Workforce Development Board and multiple subgroups such as career pathways, operations, and the equity and inclusion committee.

Minnesota School Board Association

MDE staff presented workshops at the Minnesota School Board Association (MSBA) and the Minnesota Association of School Business Officials (MASBO). Presentations were based on developing quality CTE programs and how to access funding for these programs.

MDE Staff work to coordinate with their allied professional organizations to provide workshops and updates at each of their statewide conferences. In addition to the workshop and updates, they provide an opportunity for teachers to have one-on-one technical assistance with state leadership.

Minnesota State Centers of Excellence

Our Perkins work includes much alignment and collaborative projects with the Minnesota State Centers of Excellence (<http://minnstate.edu/coe/index.html>). Minnesota State hosts eight Centers of Excellence serving the major industries of agriculture, energy, engineering, healthcare, information technology, advanced manufacturing and transportation. With the Centers, we provide professional development and certification for instructors and teachers- transportations, advanced manufacturing, and IT specifically within this grant period. Summer camps and bridge programs are supported. These partnerships helped connect education with business and industry to offer apprenticeships, internship, and other career connected educational opportunities including online options. The support of the centers of engineering and advanced manufacturing have supported Perkins initiatives around October- manufacturing month- to help provide industry tours, mobile classrooms and direct individuals to a website of facilities open to having student and parent tours.

Program Advisory Committees

Minnesota also has very robust program advisory committees at both the secondary and postsecondary level. These committees must be 51% membership by business and industry. These committees are really the integration into the workforce of the local communities. With these connections the full range of career connected education can occur; mentors are provided for students; donations are made to supplement Perkins funding for equipment, transportation, curriculum updating; and recruitment of new and non-traditional students and faculty happens.

3. During the reporting year, did your state use Perkins funds to improve career guidance and academic counseling programs?

Yes

CAREER AND COLLEGE READINESS (CCR) RESOURCE GUIDE

The Minnesota Department of Education, in collaboration with Midwest Regional Education Labs (REL) and education stakeholders from across Minnesota, completed the development of a resource and planing guide to aid local efforts to produce career- and college-ready graduates. Strategies and examples are provided to link CCR development work to Personal Learning Plans (PLP) and World's Best Workforce (WBWF) goals. World's Best Workforce is Minnesota's plan under statute to support and improve teaching and learning.

The Resource Guide, distributed in four parts, serves as a program guide to local career guidance and academic counselors as well as school and district leadership teams. It provides a link between planning and reporting efforts of previously separate initiatives: ESSA, WIOA, PLP, Perkins V, and WBWF. Career and college readiness is outlined by preparedness in competencies in four domains: Employability Skills, Mindset and Social Awareness, Career Development, and Transitional Knowledge. Distribution of the CCR Resource Guide will begin in Fall 2018 and will be accompanied by webinars, training sessions and technical assistance provided by MDE state staff.

ENCOURAGING STUDENTS TO PERSIST TO GRADUATION

Starfish is a technology tool that has been used by several postsecondary campuses to impact retention efforts by providing more frequent and targeted assistance to struggling students. In FY2018, Minnesota State College-Southeast made great strides in having programs, faculty and advisors use this tool to provide more effective retention plans for students. St. Cloud Technical & Community College's Center for Academic Success and Disability Services continued using Starfish and Kurzweil to assist students seeking assistance and accommodations from their office.

CAREER GUIDANCE AND ACADEMIC COUNSELING

Minnesota State College-Southeast has developed Check & Connect (C&C), a results-based proven intervention program that delivers sustained intervention for promoting student engagement, thus increasing retention and graduation rates. Demonstrated outcomes of C&C include increased attendance, persistence and completion, and reduced truancy, tardiness, behavioral referrals, and dropout rates. Although the Southeast Consortium has a high school completion rate (97.23%), the consortium continued to push for increased success in this area. The key strategy for FY18 was to work with building administrators, school counselors, and CTE staff to increase student engagement in their learning. School counselors within the consortium were kept informed on the value of CTE via biannual meetings and monthly mailings. By equipping school counselors with relevant and timely information, they are in a better position to support student engagement.

At St. Cloud Technical and Community College (SCTCC), the Admissions team hired two additional staff members to work with under-represented Somali and Latino students. The SCTCC Academic Advising Center continued using the successful flipped-advising model implemented in 2016-2017. Perkins funding was used to support the Peer Mentor program at SCTCC. In 2017-2018, three student peer mentors assisted the SCTCC advising staff. Peer mentors were present at "Cyclone Experience," a campus event that occurred twice prior to the fall 2017 semester and once before spring 2018 semester to assist new students with navigating the college campus. In addition, peer mentors partnered with faculty teaching First Year Experience classes to provide mentoring and additional support to new students. Peer mentor activities also included work with students in pre-health/pre-nursing programs and raising awareness for undecided students regarding CTE programs. The CTE Enrollment Specialist assisted with STAR Camp (Students, Technology, and Robots) and worked with CTE students attending Advising and Registration events. STAR Camp is hosted by SCTCC for students in 6th-8th grades who work in teams to build, program, and operate VEX robots. The CTE Enrollment Specialist helped to plan, coordinate, and attend this event.

Anoka Technical College funded an Enrollment Services Specialist focused on improving transition into the Practical Nursing program and navigating complex admissions requirements. Overall headcount for fall 2018 increased by 4.4%.

The Anoka Hennepin Teaching & Instruction department used Q Comp and Development goals to maintain or increase the percentage of nontraditional and minority populations in courses. Across the district, teachers are being encouraged to develop SAG (Student Achievement Goals) for Q Comp that align to college credits, industry certifications, TSA, and special populations.

A Student Success Coordinator was hired at Pine Technical and Community College (PTCC) in March 2017 to help identify target populations at PTCC and determine appropriate interventions to increase success and retention rates. The Middle College/College Connections project at PTCC is 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 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 program. Students are then able to take accredited and/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.

Riverland Community College implemented a new Engaged Advising Model, through which every student is assigned an academic advisor based on the Minnesota Career Field they are planning to pursue. This model allows the college to improve processes, better engage students, be more proactive and improve faculty-to-advisor relationships and increase advisor knowledge of careers and programs. The college's goal is that these activities will lead towards an increase in enrollment, retention, persistence, completion, and student satisfaction. One major impact of this change is in the way Riverland Community College registers new students. The college has shifted from large group registration sessions to individual appointments with their assigned academic advisor. These individual appointments allow academic advisors to discuss each student's goals and to develop individual academic plans with every student. In order to accomplish this, the college has worked to develop and maintain a New Student Online Orientation (<http://www.riverland.edu/orientation>) and has incorporated online appointment scheduling for advisors. The college also developed an Express Advising and Registration Model to handle last-minute walk-in traffic. The new Engaged Advising Model allows staff to be more proactive with students, which consequently increases the chances of them being successful. Academic advisors use a caseload dashboard, which allows them to identify advisees in need of contact.

Riverland Community College has incorporated academic advisors into the Early Alert Referral System (EARS) that counselors have been using. EARS allows faculty to refer students who are struggling and those referrals are funneled to either counselors or academic advisors depending on the type of referral. The college has also updated other processes to include early interventions from assigned academic advisors, including reaching out to students reported as no-shows and those who are at risk of being dropped from classes for non-payment.

During FY18, colleges in the Hennepin West Consortium (HWC) funded multiple initiatives to support career advising and counseling. The consortium contracted with a consultant to analyze data and develop programming to recruit and retain students in programs that are nontraditional for their gender. The consultant developed extensive programming which was detailed in the FY19 grant application. HWC hosted the third-annual Community and Justice Meet, which was a half-day event focusing on law enforcement, criminal justice and paralegal careers. The event was held on the North Hennepin Community College (NHCC) campus for high school students to explore careers in a variety of career pathways. Students from ten consortium high schools participated in the event. In addition, college faculty, high school teachers, students and HWC's Nontraditional Consultant presented the results of the program over the past three years at the CTE Works Conference in November.

EXPOSING STUDENTS TO HIGH-SKILL, HIGH-WAGE OCCUPATIONS AND NONTRADITIONAL FIELDS

There were many efforts at both secondary and postsecondary campuses statewide to expose students to high-skill, high-wage occupations and nontraditional fields. A selection of some of these events are provided here as examples.

Through a partnership with four local school districts, Workforce Development Inc., and Minnesota State College-Southeast, a "Senior Day" was held on the campus of Minnesota State College-Southeast. This day emphasized the transition from high school to post high school life and options. Also, high school students from area school districts attended transportation night, which included hands on demonstration of automotive services, auto body, diesel maintenance technology and truck driving. Students also met with industry representatives to discuss career pathways.

Forecast Your Future events held at St. Cloud Community and Technical College (SCTCC) focused on the various career paths that an education at SCTCC provides. These events included a campus tour for high school students in the morning and an information session later in the day. SCTCC faculty and staff shared information about programs at SCTCC and helped students form a plan to pursue a career path. Secondary students were exposed to CTE programs and careers in manufacturing, healthcare, culinary arts, and business. Other initiatives were undertaken to increase nontraditional participation in Tech Ed areas. Specifically, projects that were created by female students were displayed. Those projects were designed to spark interest in other female students.

Partnering with Twin West Chamber of Commerce, several initiatives have come to fruition at Hennepin West, the most successful of which has been Opportunity Connect. The program's goal is to provide career exploration for all secondary populations including middle school. This program provides a link between education and the work community. One of the resources available is a website connecting students and teachers to guest speakers, site visits, externships, internships, lesson plans and more.

Hennepin West Perkins jointly funded a Nontraditional Student Support Consultant to research, develop and implement programming at Hennepin West Consortium colleges in support of students in programs that were nontraditional for their gender. Programming included Lean-In Circle support groups, career awareness events, and individual interventions. The consultant collaboratively organized the 3rd annual Criminal Justice and Law Enforcement event held at North Hennepin Community College and implemented Hennepin Technical College's Unconventional Jobs: Unstoppable Women event offered to local Girl Scout troops from the northwest suburbs.

Anoka Ramsey Community College offered a Health Care Careers Camp with a goal of improving nontraditional participation and completion in medical fields. Students rotated among sessions focusing on Nursing (SIM Lab experience), Pharmacy Technology, Physical Therapy, EMT, Alcohol and Drug Counseling, Hospital Volunteer Services, and also toured the neighboring assisted-living facility to explore opportunities for health care occupations in that setting.

A truly innovative and forward-looking activity from FY18 was the Winona Senior High School REACH Program, providing high school students with hands-on immersion experiences in manufacturing. The program is employer led, is facilitated by the Winona Chamber of Commerce, ties into postsecondary programming options and is a model that can be replicated easily.

In Oak Land Consortium, use of the College Central job posting website continued, with students and alumni of both Anoka Technical College (ATC) and Anoka Ramsey Community College (ARCC) participating, along with area employers. A total of 430 employers registered, 2,624 jobs were posted, and 1,432 students and alumni were registered users. Anoka Technical College hosted a job fair on campus coordinated by the Anoka County Workforce Center with over 200 employer representatives and exhibitors present and approximately 1,000 attendees. Anoka Ramsey Community College provided personalized career services for students including career exploration, resume/cover letter writing, interviewing, and field experiences.

4. During the reporting year, did your state 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?

Yes

Minnesota State Colleges and Universities work collaboratively with area high schools to offer students opportunities to explore careers, earn college credit, and complete a career and technical program before graduating from high school, saving students time and money. The CTECreditMN.com website provides high school students with a portal to research articulated credit that is available regionally. Students can select their high school from a drop-down box to review courses available at their schools which also provide articulated college credit. Nineteen of twenty-six Minnesota Perkins consortia participate in the CTECreditMN.com website. In addition, some private and out-of-state colleges also participate, along with two Minnesota State Universities.

Specific Examples of Articulation Projects in Minnesota

Saint Paul Consortium has embarked on a collaboration to develop an Early College Model where students will obtain transcribed credit for transfer curriculum courses. Within the Early College Model, CTE pathways and Academy Programs are being developed at all high schools integrating transfer curriculum courses and CTE early college opportunities throughout. A Perkins-funded position was responsible for developing and advancing the articulation agreements between secondary CTE instructors and consortium colleges using the CTECreditMN.com website to register and record CTE articulated credit earned.

At Lakes Country Consortium, the eCampus in the High School program offered the online, college-level offerings of Payroll, Principles of Bookkeeping, Spreadsheet Applications, Personal Finance, Introduction to Criminal Justice, Introduction to Computer Technology, and Medical Terminology courses. This program also provides students and districts with supportive advising services and career outreach/ coaching presentations. The eCampus in the High School program continues to grow, and the Consortium has expanded options through this program through the development of an innovative pilot called Collaborating Online.

Minnesota West Perkins Consortium partners with eight consortia to bring articulation efforts to high school and college instructors. The CTECreditMN.com articulation website houses articulation agreements available to participating Carl Perkins consortia. In 2017-18, 39 regional agreements were reviewed, updated or created within the consortium.

On February 27, 2018 the Dakota County Perkins Consortium and Dakota County Technical College hosted a biennial articulation meeting to gather high school CTE instructors and college faculty to review and/or add articulation agreements for the 2018-2020 period. A total of 51 attendees which included 30 high school teachers (from 14 different high schools) and 21 college faculty. As a result, 220 new or revised course articulation agreements were developed with 38 different Minnesota high schools. With these agreements, 20 career and technical program areas offered high school students opportunities for early college credit. Preliminary reports indicate that 115 students earned articulated credits during the 2017-2018 year.

Central Lakes College (CLC) partners with 20 high schools to provide Advanced Standing Articulation Agreements in CTE courses. These agreements allow students who receive a "B" or above in articulated courses to receive advanced standing status which transcribes the course to CLC. There are 135 agreements in place in both consortium and non-consortium schools. Central Lakes Consortium has joined CTECreditMN.com, an online depository of advanced standing credits, for ease of transfer completion for students and teachers.

The Mid-Minnesota consortium is a member of the Southern Regional Articulation group which has developed and approved 73 agreements to use at Ridgewater College. A total of 91 regional articulated college credit certificates were distributed by consortium high school instructors in 2017-2018.

FY2018 was a great year of growth for articulation between Minnesota State College-Southeast and the Southeast secondary partners. The year saw an increase in the number of high school students that attended MSC Southeast at the college campuses or online, and also an increase in the number of articulated courses where the students received college credit for a high school course. MSC Southeast's concurrent courses and programs are NACEP-accredited. This insures that students receive the same rigor in high school that they would receive in college. It also helps to reduce the amount of time it takes for the student to obtain a college degree, diploma, or certificate.

Oak Land Consortium continues to make articulation efforts a priority because of the opportunity and smooth transition it provides for students. At the close of FY18, 114 agreements in 16 career clusters with 203 different college programs were in place. Oak Land Consortium partners with other consortia colleges and high schools to offer the most opportunities possible to students. A total of 2,269 Oak Land Education Partnership secondary students earned articulated college credit during FY18. Consortium colleges -- Anoka Ramsey Community College (ARCC) and Anoka Technical College (ATC) -- reported FY18 acceptance of articulated college credit from 76 students at partnership high schools. During FY18, ARCC reported 286 concurrent enrollment students from Oak Land Partnership high schools and ATC reported 228.

Fourteen articulation meetings were held for high school teachers and college faculty from five consortia: Hennepin West, Minneapolis, Oak Land, South Metro, and Southwest Metro. Nine colleges participated in the scheduled meetings. Overall attendance averaged 20-30 educators per meeting. One-hundred fourteen Articulated College Agreements in 16 Career Clusters with 203 different college programs in Minnesota were reviewed/ revised/ available to high school programs. In Hennepin West Consortium, 1,019 students enrolled in ACC courses and 667 students were successful in earning articulated credit.

Regional articulation is supported through the South Central Perkins Consortium. Articulation meetings were held that gave members the ability to review classes in Health Sciences, Communications & Information Systems, Business Management and Administration, Engineering, Manufacturing & Technology and Human Services. Twenty-one regional and 17 state agreements were reviewed and updated. South Central Perkins Consortium partners with 8 consortia and brought articulation efforts to high school and college instructors through 6 articulation meetings. Each meeting discussion began with an update of the Articulation/College Credit process. Website training for www.CTEcreditMN.com was provided. Articulated College Credit video tutorials located on the www.CTEcreditMN.com website continued to be utilized by students and instructors.

South Metro consortium became a member of CTEcreditMN during the 2014-2015 school year. This has enabled the consortium to better organize and track participation in articulation. Students in business, computer science, FCS, Tech Ed, health careers, EMS, hospitality, and vehicle services are participating in articulated college credit. Data from our southern partnership indicates growth from FY17 to FY18 in the number of students enrolled in ACC courses (578 to 1115), number of students successfully earning articulated credit (377 to 740) and number of students downloading their ACC certificate (234 to 334). South Metro Consortium has had similar success with its northern partnership with growth from FY17 to FY18 in the number of students enrolled in ACC courses (550 to 1020) and number of students successfully earning ACC (376 to 687). In addition to articulation, South Metro Consortium offers concurrent enrollment credit in many courses including business, information technology, animal science, and teacher education.

Great River Perkins Consortium offers articulated college credit courses in numerous pathways. By articulating with over 24 postsecondary institutions, students have access to continuing their career pathways into employment. St. Cloud Technical and Community College offers courses to high school students through the Discovery Academy in fields such as automotive technology and first responder courses. This allows students to receive college credit in their career pathways while in the safe environment of their home high schools. This partnership is a multi-district agreement with access to these specialty courses by a multitude of students.

OTHER EARLY COLLEGE CREDIT OPPORTUNITIES

Itasca Community College had concurrent enrollment agreements with seven high schools. The college increased from thirty concurrent enrollment courses in FY17 to sixty in FY18.

Central Lakes College (CLC) offered 27 sections of CTE courses in 2017-18 through concurrent enrollment and 268 students were enrolled in these courses. Courses included Accounting for Non-Accountants, Marketing Principles, Introduction to Business, Intro to Health Information, Professional Practicum, Medical Terminology, and Introduction to Computer Applications.

On-Line College in the High School is a successful postsecondary option providing on-line college courses taught by college faculty to participating high school students. All classes are scheduled to take place during normal hours during the school day. Students access the online classes while at the high school and are monitored by a district-assigned mentor or proctor. Students are registered at the college offering the course. The course is transcribed at both the college and the high school. Data indicates students taking OCHS courses have been more successful than college students taking the same online courses. This option is available for all Perkins Consortia that choose to participate. Participation in these courses is limited for CTE courses but Distance Minnesota is working to bring more occupationally-related courses online to benefit students at schools with limited CTE opportunities. Examples of such courses are Intro to Health Careers and Medical Terminology.

Normandale Community College offered 32 CTE concurrent-enrollment classes, serving approximately 800 CTE students and awarding 2,585 CTE credits. The concurrent enrollment classes are heavily focused on the Health, Education and Criminal Justice pathways. Normandale is part of the www.CTEcreditMN.com website .

The East Range Consortium served over 300 high school students with dual credit options and offered over seventy-course sections during the 2017-18 year.

Anoka Technical College funded a Director of Partnerships position currently serving PSEO and concurrent enrollment students and developing new course offerings.

Minneapolis Public Schools (MPS) have continued to offer rigorous and relevant advanced academic courses in CTE classrooms. With a conservative average cost of \$200 per college credit, CTE students in MPS amassed over 5,886 college credits in FY18 conservatively valued at \$1,177,200.

In the St. Paul Consortium, a National Academy Foundation program, the Academy of Information Technology serves 90 students at Humboldt Secondary School. Both Academy programs provide students with a rigorous sequence of courses, early college credit and work-based learning throughout their high school years. Funding in FY18 assisted in the development of the program courses, articulations and other early college course planning, as well as certifications and Technical Skill Assessment identification and student preparation. A postsecondary coordinator position, partially funded by Perkins, will be working with the Academy of Information Technology in FY18 on the articulations and other early college course planning.

5. During the reporting year, did your state use Perkins funds to support initiatives to facilitate the transition of sub baccalaureate career and technical education students into baccalaureate programs?

Yes

The only direct funding for transition of sub baccalaureate to baccalaureate programs occurs in the recruitment and support of the Minnesota Alliance for Nursing Education (MANE) programs. MANE is an alliance of Minnesota nursing programs, comprised of eight community college and university member schools, dedicated to improving the educational preparation of nurses through the implementation of a transformative educational process. This curriculum culminates in attainment of a baccalaureate degree in nursing.

However, indirect funds through staff, teacher, and faculty time were used to support the work of the Minnesota Transfer Curriculum specific to early childhood education and social work, and law enforcement and to work with Centers of Excellence especially in agriculture and engineering to provide information to students wanting to continue their career pathways to baccalaureate programs

Although not directly funded with Perkins dollars, Northland Community & Technical College (NCTC) has partnered with Bemidji State University and the University of Minnesota Crookston (UMC) to develop dual-enrollment programs to encourage transition to a bachelor's degree. Once Northland students meet minimum requirements, they are guaranteed early admission to either university. This dual-enrollment agreement allows Northland students to receive benefits of university enrollment while still attending NCTC. Examples of these benefits include accelerated university admission, waiver of the university application fee, university advisement while in the sophomore year at Northland, and immediate receipt of a university identification card allowing participation in university student life activities. Participating students are guaranteed entrance to either university as college juniors upon completion of an AA, AS, or select AAS degree from Northland.

6. During the reporting year, did your state use Perkins funds to support career and technical student organizations?

Yes

Support for student organizations from the state level has enabled students in Career Technical Student Organizations (CTSO) to seek professional development opportunities and has supported recruitment and advocacy of CTOS to school administrators and educators. Each of our CTOS provide opportunities for students to engage in career exploration opportunities through their regional and state-wide contests and career development events. These events provide leadership opportunities that allow CTE students to develop the workplace skills that our business and industry partners are looking for in their employees.

The Minnesota Department of Education program specialists work with the Minnesota Foundation for Student Organizations (MFSO) and each student organization on "Communications Across Barriers" and utilize curriculum from the Poverty Institute. This assists CTSO Board(s) of Directors, CTSO advisors and CTE educators in identifying students in poverty and providing them the tools necessary to engage them in meaningful participation in a CTSO program. The MFSO also makes a concerted effort to bring the message of poverty awareness to CTE conferences. Working with the Executive Director for both the Minnesota DECA and BPA organizations support for the organizations work was supported with Perkins funds.

Examples of local efforts include:

Support of student organizations is a cornerstone of the work that is supported by Great River Perkins Consortium. Support was provided to FFA groups from Sauk Rapids, Kimball, Rocori, Royalton, Holdingford and Foley, enabling them to attend local and state competitions. The consortium also supported DECA and ProStart groups in Sauk Rapids. Supporting these student organizations helped them connect with local, state and national leaders in their field as well as helping promote multiple programs of study and career pathways. Postsecondary funds were utilized to cover the travel costs associated with faculty advisors for student clubs participating in national skill competitions for SkillsUSA, DECA, and others. Ten CTSO advisors in the Central Lakes Consortium requested funding to support advisors' expense reimbursement for regional and state competitions.

Oak Land Consortium actively supports and promotes CTE student organizations. All consortium districts have student organizations, including Skills USA, FCCLA, HOSA, DECA, FFA and BPA. Students competed in various service learning projects, held meetings and attended leadership activities and events. Districts reported that students qualified for nationals in HOSA, DECA, BPA, and FCCLA. A new FFA chapter was started in St. Francis in 2017-18.

Region II FFA spans a geographical area that surpasses the size of any of the other seven FFA regions in Minnesota. Perkins funding has made a positive difference in the lives of students living in this rural area of northern Minnesota. Most transportation to any regional event exceeds 200 round-trip miles which is a barrier to student participation. The Deer River FFA chapter conducts fundraisers, participates in community service projects, and applies for grants to relieve the financial pressure of travel. Carl-Perkins dollars help to relieve this financial barrier and opens the door for students to experience leadership and learning at multiple levels including regional, state, and national FFA events. Students from the Deer River chapter attended the National FFA Convention for the first time this past year. The National FFA Convention made a tremendous impact on the 5 students who attended. To quote a Deer River FFA member, "Without FFA I wouldn't have come out of my shell, met as many people and developed the speaking and leadership skills I now have."

Perkins funds also supported students in Business Professionals of America (BPA) events, the leading CTSO for students pursuing careers in business related fields such as management, office administration, information technology, and other related career fields. Students participating in various events help develop their occupational competencies, broaden their career/technical knowledge, skills, leadership, and personal finance. Twenty-eight students in the Grand Rapids BPA chapter attended regional events and twenty attended state events in 2017-2018.

The primary focus for Lakes Superior Consortium regarding CTSOs in FY18 was to support and expand CTSO connections in the region, update and create common equipment/usages where appropriate, enhance professional development and collaboration, and explore a regional career pathway initiative. A total of \$13,136 was spent to support CTSO advisors, covering professional development and travel expenses. Ten students qualified to attend national FFA and HOSA events. Support was also provided for four culinary instructors to attend ProStart and FCCLA professional development events. Three instructors attended SkillsUSA to consider offering the CTSO for their skilled trades courses. A new SkillsUSA chapter was started in Duluth.

Minnesota West Consortium members apply for funds in order to make improvements to their programs. Those funds benefit students' skill acquisition and exposure to technology and processes used in industry. As a result of this investment, students in the Minnesota West consortium have demonstrated significant achievements. Each school year over 2,000 high school students participate in BPA, FCCLA, or FFA organizations where they develop and demonstrate industry-based technical skills. Graduation rates of CTE students are consistently around 99%.

Six students in the Minnesota West Community College's Welding Certificate program, in partnership with the Marshall Area Technical Education Center, Southwest Private Industry Council, and Southwest Adult Basic Education, represented Minnesota West as the first team to participate in the SkillsUSA Welding Competition conducted at Anoka Technical College. Of the six students, three were Marshall High School students and three were unemployed/underemployed adults. The team competed in eight areas including a written exam, Oxyfuel, Gas Tungsten Arc Welding (Aluminum), Gas Metal Arc Welding (MIG), Flux Core Arc Welding (MIG with Flux Core Wire), 7018 & 6010 Electrode Stick Welding, and resume preparation. In each area, the students had 45 minutes to read the blueprint, correctly setup the welders, and complete the parts within designated specifications and tolerances. Students in the high school division placed, 3rd, 7th and 8th. Students in the college division placed 15th, 18th and 20th.

Five students from Minnesota West Consortium attended the National BPA Leadership Conference in Dallas. All placed between 3rd and 10th in their areas of participation. One student received the Postsecondary Ambassador of the Year and Outstanding Achievement Awards. These accomplishments would not be possible without Perkins funds support.

Postsecondary funds were utilized to cover the travel costs associated with faculty advisors for student clubs participating in national CTSO skill competitions.

7. During the reporting year, did your state use Perkins funds to support career and technical education programs that offer experience in, and understanding of, all aspects of an industry for which students are preparing to enter?

Yes

All aspects of industry are best achieved through work-based or some other form of experiential learning. Most of these opportunities are available thanks to cooperation by business and industry partners and are not directly funded by the Perkins grant; however, these activities support the intent of Perkins legislation and bring invaluable opportunities to students in all 26 Minnesota Perkins consortia. Several examples of this follow.

Mankato Area Public Schools provided over 500 job-shadow experiences for students; 37 students participated in career internships including Mayo Explorers, a partnership with the Mayo Clinic Health System providing a 90-hour internship. Students enrolled in the program have taken a health science course and rotate between 9-10 areas of interest in the hospital setting over the course of a semester. A regional Youth Employment Acceleration Program has been developed to help students participate in a manufacturing program that is supervised by an industry mentor and supported by a work-based learning coordinator. In this program, students learn by doing, obtaining skills and confidence for postsecondary learning and career success. Seeing the value in work-based learning to promote all aspects of industry, South Central College funded a full-time apprenticeship/internship coordinator to continue to improve work-based learning opportunities at the college level,

Business and industry partners are critical to the work-based learning opportunities available to students in the Minneapolis Consortium. At the secondary level, students have opportunities to participate in worksite tours and job shadowing during the school day, participate in on- and off-site career-based exploration via community partners and work-based learning experiences, and benefit from industry-specific guest speakers that visit classrooms and share their perspective on industry trends.

During the summer, Minneapolis Public Schools (MPS) partners with the City of Minneapolis and AchieveMpls to provide MPS students with internships across the metropolitan area. All 16 career clusters are represented within the Internship opportunities provided by over 200 employers. Placement is based on student interest, skill set, and employer availability. During summer 2018, over 1,600 Minneapolis youth (ages 14-21), many of which are CTE students, participated in the City of Minneapolis STEP-UP Internship program. Minneapolis Public Schools is also collaborating with community organizations to engage students in meaningful conversations and activities that prepare and equip students to succeed in the workplace.

Minneapolis Community and Technical College (MCTC) works closely with business owners and manufacturers within all CTE programs. Students are able to engage directly with employers through regular general job fairs on campus, as well as specific job fairs for particular fields such as trade technologies and education. Each department creates relationships with business and industry partners, but specific support services at the college also create business and industry relationships, such as the Career Services Center and Student Success Center. MCTC's Career Services Center placed 550 students into internships last year.

One community partner in St. Paul had students work on a real-time issue for the company. Students worked in teams to provide solutions, which were then presented to management worldwide. St. Paul Consortium's four in-school credit unions employ 10 students and educate them on all aspects of the banking industry. Thirty-six students from St. Paul secondary schools were selected for a program with 3M Corporation, where students report to the company 2 days a week during the second semester of their junior and senior years, followed by a full-time 3M summer internship.

The MDE work-based learning specialist made inroads this year in providing direct technical support to CTE instructors in training, whose CTE teacher licensure has the work-based learning coordinator endorsement license embedded (Ag and Business at present) by presenting at University of Minnesota's Ag Teacher Practicum Class, in the High Quality Work-Based Learning State Peer Group, facilitated by Midwest Comprehensive Center (American Institute of Research) and as part of the National Governor's Association work-based learning state team conference in Washington State. A team of 5 representing Minnesota (from MDE, Minnesota State, Chamber of Commerce, DEED and DLI) was in attendance, and presented data about participation in secondary work-based learning.

8. During the reporting year, did your state 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?

Yes

Through their business and industry partners, Pine to Prairie Consortium has over 100 students that are part of formal work-based learning opportunities. Digi-Key Corporation in Thief River Falls employs several interns each year as does Polaris Industries in Roseau. In Bagley, Team Industries is working with 6 students in an approved apprenticeship program. East Grand Forks has a work-based handicapped program with 17 students who are placed with employers. Fosston has a school-to-work program with 8-12 students being placed in local businesses annually.

Northland Community and Technical College (NCTC) students in the building trades programs gain valuable hands-on experience through a shared house-building project. In partnership with the Forx Builders' Association of Grand Forks ND and East Grand Forks MN, Northland students design, build, wire, plumb, and heat a house every year, applying their technical skills on an actual construction site. Students in the Architectural Technology program compete to design the project house each year. Design and building of the Northland project house involves approximately 100 students annually (depending upon enrollment) in the Construction and Design/Pre-construction pathways.

Students in the spring Marketing Management class develop a marketing plan for an adopted local business. During this semester-long project, students are required to meet with representatives from the business and obtain data and other input from them to develop the plan. The completed marketing plan is presented to the business at the end of the semester. Up to 40 students per year in Northland's Sales, Marketing, and Management AAS degree program are involved in this project.

Altru Health System employs at least two Radiographic Technology students during their second semester to work as “student radiographers.” They work and train as Altru employees throughout the duration of the program. At program completion, if there are employment opportunities available, they are hired as Registered Radiologic Technologists. Altru’s plan is to always have two work-ready graduates to fill positions each May that have essentially completed the Altru training process and are immediately available for employment.

Northrop Grumman has opened paid internship opportunities at their new facility at Grand Sky commercial aviation and business park in Grand Forks County, North Dakota. NCTC aviation maintenance and Unmanned Aircraft Systems (UAS) students will be able to take advantage of these opportunities in the near future. Occupational Therapy students volunteer their services at Good Samaritan Center in East Grand Forks, the North Dakota School for the Visually Impaired in Grand Forks, and at Valley Memorial Homes. Northland’s Occupational Therapy AAS has a maximum enrollment of 24 new students each fall.

In Lakes Country Consortium, Business and industry partners connect students to work-based learning opportunities. An example of this connection is a consortium partnership with seven manufacturing companies to upgrade the skills of incumbent metal machining workers. In this consortium region, the demand for machinists far exceeds the supply of available workers. Small to medium-sized manufacturing companies are being forced to hire employees with limited skills and train them on the job. In the early winter, the consortium offered professional development around starting and enhancing work-based learning programs and opportunities within the consortium. This also included work on Youth Apprenticeship, for which two schools have become active participants with a local manufacturer, TEAM Industries. Both Detroit Lakes High School and Lake Park Audubon High School are now offering more courses and a strengthened partnership with that local manufacturer, including approved Youth Apprenticeship programs.

Partnerships/Collaborative projects for Family and Consumer Science are multiple.

The Food Skill Assessment Leadership group includes University of Minnesota – Extension services, Food Charter Network, MN School Gardens Coalition, Northpoint Health and Wellness, Healthy Families/Healthy Lives, Urban Roots, Youth Farm, and Department of Education – School Nutrition division.

In FCS, partnerships were established for Culinary support through the Minnesota Hospitality Education Foundation board, networking and connecting with business/industry partners from Pepsi Cola, Parasole restaurants, US Foods, Sysco, Marriott Hotels, Normandale Community College - Hospitality Management program, St. Paul Community College – Hospitality program, and Kavanaugh resorts. The goal was reached this year to increase ProStart schools from 45 to 58 schools with more greater-Minnesota and metro schools. Schools are provided with a \$2,500 grant for purchase of ProStart I textbooks and \$2,500 for ProStart II textbooks. Scholarships are available for teachers to attend Summer Culinary Training Institutes at various nationwide locations. Scholarships for students entering the hospitality field are provided by a number of various hospitality business and industry partners and educational partners. They awarded \$99,000 in scholarships in 2017.

Partners from the Minnesota Farm to School Leadership Group were instrumental in providing information and guidance to the newest revisions and addition of the 2015 FACS Frameworks – Foundation of Food Preparation and Global Foods course. We have collaborated to provide professional development through Culinary Skills Bootcamp, and Farm to School implementation through joint grant writing for USDA , SHIP, and University of Minnesota grants. Recipients included Anoka Public Schools FCS teachers through a series for 4 year-long professional development trainings at The Good Acre. FCS area held the 1st Annual FCS Summer Career Pathways Institute focusing on Early Childhood Education and Teaching and Training. The conference was attended by over 80 participants, presenters and exhibitors. Experiential learning strategies were highlighted at the 1st annual FCS Summer Career Pathway Institute at MDE, emphasizing the Early Childhood Education and Education/Training career pathway. The focus of the Institute was on strategies and opportunities that address the teacher shortage and skills gap of these career pathways by raising the rigor and accountability through an occupational focus. Keynotes included state experts in both fields, as well as information on Technical Skills Assessments and industry credential information to earn the nationally-recognized CDA credential. Time was allotted for two- and four-year college representatives to visit with teachers and connect for future collaborations of available programs to embed student career exploration and career readiness of programs offered at the postsecondary level. The lunch panel highlighted business and industry partnerships which focused on action steps needed to address the teacher shortage along with information on scholarships available for our students. Breakouts and interactive round table discussions highlighted best practice teaching strategies around alignment of standards and practice with the 2017 revised FCS Frameworks. Emphasis included the program approval process for federal Perkins funding and state CTE levy funding.

9. During the reporting year, did your state 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?

Yes

New Teacher Workshops

The “New CTE Teacher” initiative is an example of Minnesota implementing extensive research of best practices from across the nation in order to retain, educate, and support teachers in their beginning years of teaching CTE. The new Career and Technical Education (CTE) teacher program is designed to help teachers with less than four years of experience gain the knowledge and resources they need to be successful in the CTE classroom. . The purpose of this year-long program is to promote educational excellence in CTE curriculum and instruction as well as to strengthen and retain CTE teachers in Minnesota. In addition, through the University of Minnesota and the Minnesota Agricultural Education Leadership Council (MAELC), new AFNR teachers participate in a cohort group designed to help new and beginning teachers through their first-year experience. These cohort models provide Minnesota with a higher retention rate and provide our student learners with access to well-trained professional staff.

Program Approval Workshops

During the 2018 year, Minnesota Department of Education provided workshop opportunities for secondary schools within their consortia to attend a Program Approval (PA) workshop. The PA process is now completed and submitted in an online Excel format. Working with teachers and consortium leaders, MDE staff provided technical assistance within their regions and their content area to aid local programs in meeting the expectations of the program approval process. Annually, about twenty percent of all programs complete a five-year program approval process. This allows local CTE Approved Programs to access federal Carl Perkins funds and local Career and Technical Education levy funding. It is a major component of supporting improvement of CTE courses.

NEW BUSINESS AND MARKETING COURSES

Professional development and trainings provided across Minnesota by the state specialist for business and marketing encouraged business and marketing teachers to strengthen their programs by strengthening rigor in existing courses and developing new courses in the career clusters of Hospitality and Tourism, Entrepreneurship, Programming/Coding, and Finance. Teachers were introduced to industry resources for each cluster and encouraged to develop local/regional industry partnerships in support of developing new or strengthening existing courses.

The Carpentry program was reinstated at the Pipestone campus of Minnesota West Community and Technical College for enrollment starting Fall 2017 as a direct result of industry need and job demand as well as the collaborative efforts of the Pipestone City Economic Development Authority, Pipestone Area Schools and Minnesota West. The program was designed to work with Pipestone High School academic schedules allowing students to take courses at the campus and housing projects in the community, for hands-on learning that had been established by the Pipestone City EDA. High school students take courses with adult learners and earn credits towards a certificate or diploma. Students are able to earn a full certificate while earning their high school diploma.

Mesabi Range College created an online Desire to Learn Bright Space Carpentry Instructor Resource Class which contains myriad resources that can be accessed by Concurrent and Applied Learning Institute instructors and students.

Pine Technical Consortium established a Career Prep Consortium that proved to be successful for FY18 and will be continued in FY19. Secondary partners were invited to Pine Technical Community College (PTCC) in September 2017 to improve communication and build relationships among secondary partners and PTCC. The Career Prep Consortium established a strategic work plan addressing two main initiatives: expanding CTE access for ALL students and streamlining the concurrent enrollment intake process. Career Prep Consortium members conceived 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 will be able to offer high school students an opportunity to explore careers that lead to high-skill, high-wage, and in-demand career opportunities. The overall goal of the career academies is to increase opportunities for students to participate in career and technical education (CTE) opportunities that provide access to early college credit, opportunities for industry recognized credentials, and exposure to in-demand career opportunities.

Perkins funding is being used to support new or improved programs in cybersecurity, unmanned aerial systems (commonly known as drone programs), and expansion of alternative energy programs. All of these initiatives have an emphasis of programs of study—beginning with exploration at the secondary level and extends to the postsecondary level. Expansion of advanced manufacturing programs are currently being supported at Century College with its connection to the secondary partners, at the Dakota consortium and being explored at Southeast.

10. During the reporting year, did your state use Perkins funds to provide activities to support entrepreneurship education and training?

Yes

Professional development and technical assistance in the development and improvement of entrepreneurship programs was provided by sharing curriculum options, best practices, and facilitating connections with postsecondary programs delivering entrepreneurship programs. Existing entrepreneurship courses include titles such as Business Innovations and Entrepreneurship Academy. Most courses include opportunities to develop a business plan for a new product or service, receive mentoring from local business community leaders, conduct feasibility and market research, and deliver “shark tank”-type financing presentations to encourage financing of their simulated or real business opportunities.

Career Technical Student Organizations (CTSO) provide many opportunities for students to develop and demonstrate entrepreneurship mindsets and competencies as well as opportunities to compete in local, state and national events focused on a wide range of business and entrepreneurship topics. Minnesota Department of Education also engages with partners such as BestPrep, a Minnesota non-profit organization providing curriculum and training to students and teachers. BestPrep develops entrepreneurial competencies through programs such as Minnesota Business Venture, a one-week residential summer camp. Students attend presentations from successful regional entrepreneurs and apply insights gained in the development of business plans for entrepreneurial startup products or services judged by industry professionals.

Many Minnesota schools provide practical application of entrepreneurship instruction through operation of successful school-based enterprises affiliated with their CTSO that are connected to Perkins through funding for business equipment. These business operations include school stores, catering operations, food production, and bank/credit union satellite locations operated within the school facility. A total of 18 Minnesota high school DECA student-run businesses were recognized for “gold certification” through the School-Based Enterprise (SBE) program.

11. During the reporting year, did your state 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?

Yes

Modeled after the Association for Career and Technical Education (ACTE) Teacher Leadership program, Minnesota has been a part of the Region 3 ACTE project to coordinate and identify strategies to assist with the CTE Teacher Shortage issue. A survey to new CTE instructors was created and sent to teachers with 1-3 years of experience. Results are being compiled and will be presented at multiple local, state and national conferences.

Minnesota initiated a CTE business teacher recruitment effort in five states in the upper mid-west (Minnesota, North Dakota, South Dakota, Iowa, and Wisconsin). State business program directors in these five states collected and shared information on postsecondary institutions in each state which offer CTE teacher licensure programs in business education. This information will be distributed through classroom teachers and CTSO advisors in fall 2018 throughout the five-state region as part of the ongoing effort to encourage business and marketing students to consider further study in education career pathways. Minnesota plans to expand this successful teacher recruitment tool to additional CTE career fields.

State staff continue to lead a “New CTE Teacher” network by implementing extensive research of best practices from across the nation in order to retain, educate, and support teachers in their beginning years of teaching CTE. The new Career and Technical Education (CTE) teacher program is designed to help teachers with less than four years of experience gain the knowledge and resources they need to be successful in the CTE classroom. It is ideal for new CTE teachers or teachers who are teaching CTE courses for the first time. New CTE Teachers are invited to participate in this initiative which provides opportunities to support and improve teacher confidence and collaboration. The purpose of this year-long program is to promote educational excellence in CTE curriculum and instruction, as well as to strengthen and retain CTE teachers in Minnesota.

The New CTE Teacher Program focuses on:

Understanding and implementing CTE program frameworks

Classroom and curriculum strategies and resources for CTE

Connecting with business, industry, postsecondary, and community members

Strategies and resources for achieving excellence in CTE

Career & Technical Education Student Organizations (CTSOs)

Professional development opportunities

CTE mentoring and observing opportunities

The family and consumer science area continued the Teacher Cadet program for secondary students interested in the field of teaching to address the need for diverse teachers and the rising teacher shortage in Minnesota. There are now a total of 60 FCS teachers trained in an intensive three-day training to implement the Teacher Cadet curriculum. This program is offered for concurrent credit through Minnesota State University Mankato. Future plans include aligning with additional Minnesota State College and Universities for concurrent enrollment opportunities. The Teacher Cadet program focuses on recruiting students of diversity, students on free and reduced lunches, first in family to go to college, and males interested in working with young children. The program has a strong experiential learning component including job shadowing, campus visits, and field experiences as well as best practice, student engaging teaching techniques and project based assessments.

In the statewide family and consumer science trainings, the “Say Yes to FACS” campaign to recruit teachers to the FACS field was highlighted. Sample lesson plans, posters, stickers and bookmarks were handed out and explained at the trainings. In addition there are scholarships available through MAFCS for teachers desiring to go into and continue in FACS Education programs in Minnesota and Wisconsin.

12. During the reporting year, did your state use Perkins funds to support occupational and employment information resources?

Yes

YES

Minnesota Career Information System (MCIS) conducted over 40 training workshops this year. Participants included high school counselors, administrators, teachers, special education (SPED) teachers, work force counselors, corrections staff, Adult Basic Education (ABE) staff and CTE teachers. Training was also offered to college students preparing to be counselors. MCIS promotes other career and college readiness efforts through its website, including College Knowledge program is offered through the Minnesota Office of Higher Education.

Following are some new initiatives that MCIS has been working on this past year:

MCIS is partnering with Clever (<https://clever.com/>) to provide schools the option for single sign-on and rostering. Single sign-on allows students to access many web-based programs with one clever user name and password. Rostering allows MCIS to sync with the school's student information system in order to create, transfer and hide student accounts by mirroring the school's student information system Personal Learning Plan (PLP) Reports. MCIS added custom Personal Learning Plan reports in response to requests from schools around the state. A standard PLP report was created and schools can pick and choose what components they would like to include in the report. Schools can now identify which students have or have not completed parts of the PLP and gauge overall school progress.

MCIS has participated in the Statewide Longitudinal Education Data System (SLEDS) multi-year grant. The first completed project was the creation of a mobile version of the PLP to increase student and parent access. The second project migrates masked student career planning data from MCIS into SLEDS. Schools will get reports that include MCIS career planning data along with information on the education and work status of former students. A wide-range of stakeholders will use this information to better understand, research and predict early planning and actions that will increase the likelihood of career and college success. The pilot project is ending and the opportunity to participate in SLEDS research is now open to all Minnesota high schools using MCIS.

State Approved Alternative Programs: MCIS is also working with the State Approved Alternative Programs to create unique checklists for Alternative Programs. These checklists are designed for multi-age classes and incorporate the steps for students to complete a plan that meets the requirements of the Continual Learning Plan and the Personal Learning Plan.

The Special Education, Adult Basic Education and Corrections versions are still new and gaining in popularity. At the 2018 CTE Works Summit, MCIS held a workshop on the new SPED, ABE and Corrections versions of MCIS. The workshop featured a panel of Corrections staff who discussed how they are implementing the program at all Minnesota State Correctional Facilities.

The Career-wise project: a Minnesota State Colleges and Universities career and education resource (careerwise.minnstate.edu) also receives support to facilitate the matching of student interests to more than 800 career profiles. These profiles are aligned with programs and courses in our system, available certifications and apprenticeships and advice for applying to and paying for postsecondary educations. The project also provides considerable information about jobs such as the latest salary information and job data in a geographic area.

Another supported resource is RealTime Talent (www.realtimetalent.org) , a public-private collaborative that provides research on the current labor market trends with customized reports such as the pathways reports for healthcare, manufacturing, construction, information technology and agriculture. The reports take into consideration the future job growth, variety of future career options, number of job openings, and future talent shortages to help estimate how high opportunity some positions are.