

Consolidated Annual Report, Program Year 2016 - 2017

Michigan

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?

Yes

Secondary

Michigan continued the implementation of assessments for CPI 2S1, but focused on the implementation of certifications and/or credentials for select programs to align with anticipated Perkins V requirements and consistent with state priorities. Students that have obtained industry-recognized certifications and/or credentials can have better prospects of entering into the workforce and/or enrolling in a postsecondary institution. The challenge in implementing certifications/credentials for programs is the cost. Therefore, Michigan gave three CTE programs the option of having students take the assessment or the certification/credential. The programs: 1) Welding, Brazing and Soldering 2) Law, Public Safety, Corrections & Security 3) Computer Systems, Networking and Telecommunications, were allowed to choose either the selected assessment offered by NOCTI or the certification. For the Welding program, the SENSE certification was offered as an option, for the Law, Public Safety, Corrections & Security program, programs were given the option of administering Firefighter I & II certifications, and for the Computer Systems and Networking and Telecommunications program, certifications offered by COMPTIA (A+, Network+, Security+, IT Fundamentals, Linux+); Linux Professional Institute (Linux Essentials, Linux 1, 2, 3); Certiport (MTA and IC3), and CISCO (CCENT) were offered as options. In addition to the implementation of the above certifications, the Energy Test, that was selected by a group of Industry experts, was implemented. Michigan will continue to research industry recognized certifications and/or credentials to use for end-of program completion. Michigan will also continue the process for identifying statewide third-party assessments for secondary programs by utilizing multiple Career Cluster Referent Groups (CRG). The Assessment and Accountability Referent Group (AARG) consisted of assessment and measurement experts from intermediate school districts, the Michigan Department of Education, Bureau of Assessment and Accountability (BAA), community college representatives, representatives from Community College Services in the Workforce Development Agency, secondary CTE administrators, and the OCTE staff. The review and selection of assessments for each career cluster area involved a CRG which consisted of secondary and postsecondary content area experts, one or more measurement professionals, a secondary CTE administrator, and the OCTE research and program staff. The OCTE staff working on Technical Skills Assessment (TSA) review and adoption met quarterly, or as needed, to review and discuss progress and processes. To facilitate discussion around the selection of assessments, secure collaborative applications housed within the CTEIS were utilized to share data, information, and ideas between the OCTE and districts, industry partners, and vendors.

Michigan's process involved review and evaluation of assessments for psychometric qualities, review of assessment information by CRGs, and, where possible, content review of the assessment items compared to the program standards. Assessments that were field tested were evaluated using both a survey from students, teachers, and proctors, and the assessment results. Assessments with acceptable field test feedback and ratings were adopted for full implementation in the 2016-2017 School Year, with a final feedback survey for a final review.

During the 2016-2017 school year, reviewing of assessments/credentials/ certifications continued for the following career clusters: Hospitality & Tourism career cluster and the Architecture & Construction career cluster.

The OCTE continued to struggle to match student assessment scores to individual student records using the state Unique Identifier Code (UIC). To increase the accuracy of the UICs, student directory files linking student names to UICs were created for each adopted assessment and the files were provided to the assessment vendors under a data sharing agreement. In 2016-2017, Michigan had agreements with Automotive Service Excellence (ASE), Precision Exams (Health), and the National Occupational Competency Testing Institute (NOCTI). This process improved the accuracy of the data. The OCTE also collects student data from Industry certifications. This process involves collaboration with each industry partner in determining a data collection process. All industry partners are required to upload student assessment scores into the Moodle system. Moodle is a shared platform among our CTE programs, vendors, and industry partners that is secure and data can be uploaded and downloaded into the system. CTE programs can also upload student assessment scores and these scores can be matched and validated with the assessment scores that are uploaded by each industry partner.

Postsecondary

The State of Michigan, Talent Investment Agency (TIA), through the Michigan Community College Data and Evaluation Committee (MCCDEC), has continued to review and identify skill certifications and technical skill assessments for occupational programs. A list of third-party assessments, as well as which assessments were actually being used by institutions was shared with all colleges. Data was also reviewed to see if credentials received as a result of passing an assessment were being counted as an outcome for 2P1, Credential, Certificate, or Degree Completion. The Certifications and Assessments Database Projects process began and should be completed during the 2017-18 fiscal year. MCCDEC and state staff also reviewed the validity and reliability of the data. MCCDEC meetings were held in August (Data Workshop), September 2016, January, March, and June 2017. In addition, the State has an approval process whereby individual institutions can submit proposed skill certifications and technical skill assessments for review. Faculty members that are curriculum experts in their field, verify the validity and reliability of the assessments. A database of these assessments is currently being updated on the Michigan Community College Network (MCCNET) website. The skill assessments for 1P1, Technical Skill Attainment, are proposed for the duration of the Perkins State Plan for Career and Technical Education.

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 specific to participation in, and progress through, secondary CTE programs are collected through the Career and Technical Education Information System (CTEIS). Data from various other sources are matched into the CTEIS system to prevent duplicate data collections. Student demographic and exit status data were collected through an expansion of CTEIS to directly coordinate data matches with the Michigan Student Data System (MSDS), Student Record Maintenance, and Student History data systems through the Center for Educational Performance and Information (CEPI). Steps toward more fully automating processes both within CEPI and CTEIS are being reviewed and planned in the future.

External data coordination events for matched data for graduation data, student academic assessment data, and Technical Skills Assessment (TSA) data were ongoing activities. CTE student data was collected and extracted for matching processes with the state academic assessment system data and the graduate record system data. Student technical skill assessment data were collected from multiple assessment vendors and shared with OCTE based on data sharing agreements. TSA data that did not include accurate student identification data were processed using various data matching techniques on first and last name, middle initial, and cohort local identification to discover the students' districts. TSA directory data was then reflected back to districts for their review and correction of student identification information within CTEIS on a system level. This process produced markedly better student matches within CTEIS.

In all cases, external record-matching was finally carried out by linking records utilizing the student's current state primary Unique Identification Code (UIC) utilizing a lookup and a de-duplication process. Data elements collected and incorporated into CTEIS from other systems were reflected back to districts via CTEIS to allow districts to review and correct data in their local source data systems prior to final data processing. Automated systems checked student identification and demographics against the state's master systems to ensure issues were reported to districts so they could work toward ensuring accurate and up-to-date information was submitted. Individual student records produced through the matching process were utilized to produce the EDFacts files.

During 2016-2017, the OCTE continued support of a survey center to assist local districts to complete a follow-up survey of CTE student placement in employment, postsecondary education, or military. Additional data matching using CEPI's graduate record system was used to identify students who exited the reporting school year to allow districts to access accurate data listings for follow up surveys.

The Student Pathways file that shows student-level information on college enrollment, coursework, cumulative credit, program and award information, and grade point averages (GPAs) earned by Michigan high school graduates and Michigan college and university students continues to be used by secondary and postsecondary staff. This file allows both high school CTE programs and postsecondary programs to view shared student-level data.

The OCTE continued working with its vendor, PTD Technology, to develop an Industry certification/credential repository of all certifications/credentials administered to CTE students. This repository will provide useful information on the certifications/credentials that are useful to employers.

Postsecondary

The State has changed MCCNET website IT providers from ThinkInteractive to i2Intergration due to bidding process. The data collection website – Data is being collected on the server that was established in 2014-15 to comply with State of Michigan and federal security guidelines. The process for institutions to submit data has been improved, enabling more user-friendly submission. The State provides institutions with detailed instructions and guidelines to use to measure the validity and reliability of the data submitted to the State. Annual checks are performed and year-to-year comparisons by community college are made to uncover any possible unreliable data. These validations are also confirmed through on-site monitoring visits. Institutions are contacted if data does not meet the criteria set forth in the instructions. MCCDEC reviews these data and offers recommendations to improve reliability and validity. Institutions continued to provide input, as well as data into the development of the K-20 Longitudinal Data System.

The State staff members worked with the Michigan Department of Education (MDE) and finalized the FY 2016-17 CCS Perkins Local Annual Grant Application and followed with creation of the FY 2016-17 CCS Perkins Final Report. This is the first year for the new grant application and also the new final report in the Michigan Electronic Grant System Plus (MEGS+). Both MEGS+ documents align with MDE's Cash Management System (CMS) which provides additional security and efficiency to meet the federal audit guidelines.

Consolidated Annual Report, Program Year 2016 - 2017

Michigan

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

The Career and Technical Education Information System (CTEIS), is a web application server driven database and hosts an individual student record system. The CTEIS is used to collect data on students in Career and Technical Education (CTE) programs and includes statewide, regional, and district-level performance outcomes. The CTEIS also has secure collaborative applications that allow sharing of data, information, and ideas between the Office of Career and Technical Education (OCTE) and districts, industry partners, and vendors. The collaborative tools are used for assessment and program-specific tasks such as sharing student assessment data with district staff to validate, change, or update specific program or student identification information. Assessment analyses was completed for the Finance and Marketing programs. This analysis compared the number of concentrators vs. completers who passed the state-approved assessments. The same analysis was done for all state-approved assessments for distribution to CTE Administrators.

The data collected in CTEIS allows the OCTE to systematically process state data to report measures for each special populations group and other breakout population groups; and to evaluate outcomes on each of the core performance indicators, as well as within specific CTE clusters, pathways, Classification of Instructional Program (CIP) codes, and programs. Cluster, pathway, CIP code, and program-specific information enables the OCTE to target and focus technical assistance efforts at the regional, Career Education Planning District (CEPD), and district level. In addition, local educational agencies (LEAs) maintain CTEIS data specific to the programs they operate. This enables them to specifically analyze data to the teacher, course, and student level to provide appropriate interventions for students, including those who are members of special population subgroups, who may be performing below the state performance levels. Individual student data provided to the state by each local educational agency (LEA) is reported at the aggregate level to and for each district, fiscal agency, CEPD, region, and the state (including each special population category) to aid in data analysis and evaluate performance at the local levels.

Data collected through the CTEIS is transferred annually to the Michigan Statewide Longitudinal Data System (MSLDS) and the Teacher Student Data Link (TSDL) database. During 2016-2017 the OCTE staff continued to meet with MSLDS staff to discuss development of reports which would allow program and course-level data on CTE students to be linked to postsecondary data for the purpose of program evaluation. The Student Pathways File has already been implemented and links secondary to postsecondary data. Discussions with Workforce Development Agency staff regarding linking CTE data to the Workforce Longitudinal Data System (WLDS) continues.

Core Performance Indicator (CPI) trend reports with graphs and tables showing the consortium's performance compared to the state target and state performance are updated annually for each Perkins consortium to assist the consortia to evaluate their progress on the CPIs.

CTE Participation and Completion were included in Michigan's in Top 10 in 10 Years' dashboard as a measure of student engagement and Exit Ready. The webpage can be found at www.mischooldata.org. Click on Top10in10Years.

Completion of a CTE program is also a subcomponent of Michigan's ESSA "Additional Indicator" of School Quality/Student Success and will be included in Michigan's Transparency Dashboard. http://www.michigan.gov/documents/mde/SBE_Policy_Statement_on_Transparency_Dashboard_-_FINAL_TT_575834_7.pdf

Michigan continued to monitor participating agencies for compliance with federal nondiscrimination legislation (Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the Boy Scouts of America Equal Access Act of 2001, Title II of the Americans with Disabilities Act) to ensure equitable access for all students. During 2016-2017, nine agencies were reviewed, including one community college. Technical assistance was provided to over 20 agencies as they completed Office of Civil Rights compliance plans.

The MDE has an internal monitoring coordination team. Membership includes representatives from all offices that administer federal grant funds and conduct monitoring visits. The team shares projected onsite monitoring dates and schools to avoid duplicate visits or to streamline monitoring. Future plans are to share common monitoring findings across federal programs to inform statewide technical assistance needs and to find ways that offices can collaborate on financial/grant management training to schools to minimize future findings.

Postsecondary

Sector Strategies, within the Industry Engagement Division of the Talent Investment Agency, is responsible for the statewide oversight of Carl D. Perkins funding, awarded to post-secondary institutions. Perkins recipients are required to update reviews of state approved occupational programs once they have been completed. The State Program Inventory is updated to maintain the annual schedule for review of career and technical education programs. During the on-site monitoring visit, state staff reviewed the Program Review of Occupational Education (PROE) surveys and reports to assess that the institution has evaluated the effectiveness of occupational programs and maintained the annual schedule. Each program inventory schedule includes feedback from students, faculty, administrators, and advisory groups. While programs are reviewed on an annual basis, all institutions are required to maintain a current evaluation inventory.

Additionally, the outcomes from the Core Performance Indicators (CPIs) are reviewed prior to the on-site monitoring visit. Results of performance determines if technical assistance is required to improve or achieve state levels and impact student success. The state monitoring process consists of: a risk analysis of institutions receiving Carl D. Perkins funds, review of information submitted in the Local Annual Application, technical assistance provided during the fiscal year, previous onsite monitoring visits, data quality evaluation, and financial tracking mechanism. In discussions with the United States Department of Education (USDOE), the state developed procedures for accepting or negotiating Career and Technical Education Core Performance Indicators. Each institution's performance is reported annually and reviewed by state staff. Additionally, the Procedures for Accepting or Negotiating Career and Technical Performance Indicators were developed to include instructions for those institutions that fail to meet at least 90% of the agreed upon adjusted level of performance for any core indicator. If an institution fails to meet the state approved levels, they must work with the State to develop and implement an Improvement Plan for meeting the approved core performance level.

Data collection is done through a web-based system, MCCNET, and is used to collect the core indicator data by individual program, within each institution receiving Perkins funds. The State uses these data to assess and evaluate special population groups as compared to total occupational students. Based upon analysis of the data, this program-specific information allows the state to focus technical assistance efforts at the program level. Institutions are provided historical data for each of the core indicators as well as whether or not they have met the 90% threshold. Those that did not meet the 90% threshold, did not show improvement, or did not meet the standard are asked to modify their plans to include activities to assist in meeting or exceeding the state approved levels of performance. Institutions that did not meet the 90% threshold must describe in the Local Annual Application activities to improve the core performance indicator levels.

Data is aggregated to the state level (including special population categories) and reported back to the colleges to aid data analysis and assess performance. The state provides support to the Michigan Community College Data and Evaluation Committee (MCCDEC). The MCCDEC meets four times a year. The primary function of the MCCDEC is to advise the state in all matters pertaining to data collection, reporting, and analysis, including local and statewide evaluation. During the reporting year, MCCDEC began the process of reviewing existing evaluation processes used by institutions to standardize evaluation methods throughout the state. The core indicators are central to this process. MCCDEC annually reviews all the core indicators (especially 1P1 and 2P1) to provide insight as to why certain discrepancies occurred and why institutions may or may not have attained the expected level of performance. Recommendations were provided, instructions were updated, and some colleges re-ran and re-submitted their data based upon MCCDEC clarifications and recommendations. The committee also provides information regarding best practices for program and service delivery.

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

Secondary

Rapidly developing technologies are transforming the world of work and CTE programs. Highly technical, knowledge-based careers of the future are where current students will find jobs. Michigan has a process for encouraging local agencies to look to the future in delivering CTE through an emerging program application process. All state-approved CTE programs are required to have an active advisory committee of technical experts from local business and industry. These members provide valuable feedback on current technology and specific training needed in CTE instructional programs. This input helps all local programs to stay current and to be responsive to the needs of business and industry. At the same time, this helps our CTE students to gain valuable skills consistent with the needs of local employers.

Postsecondary

The State continues to provide support for colleges to learn about the latest research, technology, and innovations in CTE to develop and/or expand the use of technology in career and technical education. Institutions utilize a variety of technological platforms, including MCCNET and MEGS+, to collect and report the data by individual program and by institution. The State uses these data to assess and evaluate specific groups as compared to total occupational students. During the reporting year, Community Colleges transitioned to a new Local Annual Application grant and Final Reporting submission process. Perkins recipients were encouraged to participate in webinars for technical assistance in navigating the new application system. The State conducted trainings and shared system updates, with the occupational contacts, during the quarterly Michigan Occupational Deans Administrative Council (MODAC) meetings.

The annual TRENDS in Occupational Studies conference promotes workshops and presentations to equip occupational faculty and administrators with strategies on how to utilize technology in the classroom to motivate, inspire, increase students' willingness to attend class, and improve a student's desire to learn.

State continues to partner with the Michigan Department of Education (MDE), Office of Career and Technical Education and Microsoft to implement the Microsoft IT Academy. project, funded by the Michigan Legislature, provided information technology and educational opportunities to high school, career academy, and community college students, faculty and administrators. program allows the Microsoft IT Academy to deliver training to secondary and post-secondary faculty and administrators throughout Michigan. Students as well as professional staff and administrators can achieve technological certifications and college credit opportunities. Academy provided information to students and faculty on acquiring technological skills and competencies required for gaining employment in the technology industry. Funding to continue the program is currently being discussed within the Michigan Legislature.

Institutions receiving Carl D. Perkins funds expanded the use of technology in career and technical education programs by implementing workshops and training sessions for occupational faculty, administrators, and counselors to upgrade their skills, and competencies in delivering course materials and support to students using technology. Learning modules that support the use of technology were utilized within career and technical education courses. Technology experts served on advisory committees to apprise faculty regarding curriculum and academic standards, state of the art equipment, and the skills required for employment in the occupational industry.

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?

Secondary

Michigan requires that all CTE state-approved programs be taught by teachers with appropriate teaching certificates to receive funding. CTE curriculum consultants work continuously with the MDE's Office of Professional Preparation Services (OPPS) to update teacher preparation standards in CTE areas, as well as to assist in revision requirements for CTE certification and work experience rules.

The OCTE added the Troops to Teachers component to our Teacher Education Improvement Grant. Two of our recipients have developed programs to attract returning veterans to become CTE teachers and ultimately earn their occupation certification. The Troops to Teacher's program has been promoted at local job fairs and presentations at VFW halls. They have scheduled visitations to speak with military personnel to provide information about the program. Flyers and brochures have been posted to advertise this offering. This untapped resource has great potential to assist in the professional trade/CTE teacher shortage.

Comprehensive professional development was provided on an ongoing basis to administrators through OCTE state meetings, including the OCTE Fall Update, the New CTE Administrator workshop, the Perkins Grant Dissemination workshop, Using CTE Data workshop, Teacher Technical Assistance Academy, New CTE Program Application Technical Assistance workshops, the OCTE Spring Update, and the Early/Middle College workshop. Attendance has been consistently strong and reflected collaborative efforts between secondary and postsecondary partners.

OCTE staff provides support and works closely with counselor professional development associations to assure that ongoing professional development is provided to school guidance counselors. During 2016-2017, OCTE worked with the counselor professional associations to support their Fall conference, including issues related to earning academic credit in CTE programs. OCTE supported the Career Education Planning District (CEPD) directors Summer Leadership workshop. Staff also works in collaboration with the Michigan Occupational Special Populations Association (MOSPA) and multiple program-specific teacher associations. In addition, the counselor and teacher listserv are frequently used to disseminate national, state, and/or local information to counselors and teachers.

During the 2016-2017 school year, the OCTE developed a New CTE Program Application Took Kit. This tool kit was developed to assist educational agencies understand the process of applying for and implementing a new CTE program. There are three phases of a new CTE program-what you need to know before applying, submitting an application, and the requirements following the state approval of your program. This tool kit is intended to help the field identify the requirements of a new CTE program and understand the specific responsibilities of a CTe program. The tool kit also includes a variety of examples, templates, resources for additional information, and contact information for support services.

This year we developed a New CTE Teacher Tool Kit. This document outlines a variety of topics that will assist a new CTE teacher in accomplishing required tasks and compliance for state-approved programs. It is a helpful tool for business and industry individuals who become CTE teachers. The document includes information on classroom management, Navigator, instructional design/segments, advisory committees, CIP self-review, and more.

Throughout the year, staff collaborate with CTE professional organizations and CTE teacher organizations to provide comprehensive professional development at statewide conferences, through website resources, summer institutes, and program-specific events. Through a state leadership grant, an additional competitive grant provides for expertise and services in developing and managing a web portal (Navigator) that disseminates information to state CTE programs about state-approved program standards, CTE curriculum resources, and CTE program evaluation tools.

OCTE continued to work closely with the Michigan Career Placement Association (MCPA) to coordinate statewide work-based learning sessions for the 2016-2017 school year. Support was provided through attendance at MCPA executive board meetings and providing technical assistance and resources to this association specifically related to work-based learning for students in state-approved CTE programs.

The CTE Administrator Manual, designed for use by CTE administrators, includes resources and information targeted for use by those filling this role. This manual includes an explanation of the appropriate use of secondary Perkins funds, a variety of resources, and gives detailed requirements for approved CTE programs. The document can be reviewed on the OCTE website: www.michigan.gov/octe. It is continuously update to reflect current initiatives, policies, and procedures.

The Michigan Career Education Conference continues to provide a statewide forum for over 600 secondary and postsecondary educators, administrators, counselors, and business partners. The 2017 conference theme, CTE: Learning that Works for Michigan, emphasized the shared goals of educators and other stakeholders to help students acquire necessary academic and technical skills, while helping them to understand how and why these skills are relevant for students in their future careers and in support of the Michigan economy.

Professional development is a continuous effort involving all OCTE staff. On an annual basis, professional development is provided to new and current CTE administrators, new CTE teachers, teachers of specific career clusters, data staff, grant administrators, counselors, and special populations coordinators. OCTE promotes professional development through career and technical student organizations and professional associations affiliated with each career pathway.

In partnership with the U.S. Department of Labor, Office of Apprenticeship, Michigan Department of Talent and Economic Growth, and the Governor's Talent Investment Board, OCTE supports formal, long-term education and training commitments.

Apprenticeship programs are federally recognized with business occupational registered standards and signed apprenticeship agreements that outline education and training activities, timelines, and wages. The apprenticeship initiative as formed to assist in addressing specific program barriers with the goal of increasing apprenticeship opportunities throughout the state. OCTE staff meets with representative from the statewide apprenticeship groups to strengthen communication and linkages.

Early/Middle Colleges (E/MCs) across the state receive technical assistance during the fall, spring, and summer months. Outreach is also conducted among professional organizations to educate stakeholders about the benefits and operations of an E/MC. The chart below illustrates the activities conducted during the 2016-2017 school year. An E/MC tool kit was also developed and distributed to provide valuable resources and guidance to districts and colleges. No federal dollars were used to support these activities.

MDE/MEMCA Regional E/MC Cluster Meeting, Escanaba, September 28, 2016

MDE/MEMCA Regional E/MC Cluster Meeting, Roscommon, October 6, 2016

MDE/MEMCA Regional E/MC Cluster Meeting, Battle Creek, October 11, 2016

MDE/MEMCA Regional E/MC Cluster Meeting, Detroit, November 2, 2016

MEMCA Counselor Network, Flint, November 10, 2016

Michigan Department of Education E/MC Getting Started Workshop, Lansing, February 23, 2017

MEMCA Teacher Network, Flint, March 10, 2017

Michigan College Access Network Annual Conference, Lansing, March 13, 2017

MEMCA Winter Conference, Flint, March 16-17, 2017

Detroit Public Schools (via United Way invitation), Detroit, April 26, 2017

MEMCA Student Leadership Conference, May 19, 2017

Directors of Admissions at the State Universities in Michigan, Traverse City, June 2, 2017

MEMCA Summer Conference, Flint, August 9-10, 2017

Michigan College Access Network Alliance Meeting, Lansing, August 28, 2017

Postsecondary

State staff, as well as faculty and administrators, attended the annual Michigan Career Education Conference, titled "CTE: Learning that Works for Michigan". The conference featured specialized workshops including best practices reflecting upon the mission of career and technical education to prepare students for future careers. Keynote speakers for the 2017 Michigan Career Education Conference included: Dr. Sherene McHenry, Fully Engaged, LLC., Khalil Tubbs, student at Western Michigan University, and Ms. Elizabeth Huntley, Lightfoot, Franklin & White, LLC. The keynote speakers and the Excellence in Practice Award winners exemplified "best practices" in preparing occupational students for employment. Additionally, the conference provided real-life strategies and activities that participants could take back, revise and/or replicate to meet their specific needs. State staff participated in regularly scheduled meetings of post-secondary administrative organizations as guests and presenters to update members on current federal and state policies and procedures which govern the administration and implementation of occupational programs.

Professional development services were also provided through consortium projects for Michigan apprenticeship instructors and coordinators through the Michigan Educators' Apprenticeship and Training Association (MEATA) annual conference. The State supports the conference which promotes opportunities for individuals to participate in work-based learning and apprenticeship opportunities. The conference enhances post-secondary educator's knowledge, by providing opportunities to network, collaborate with representatives from across the state, and learn about the latest academic research, pathways and requirements needed to become an apprentice and address the talent needs in Michigan.

Post-secondary special population coordinators and advisors received support from Carl D. Perkins funds to attend the 2017 Michigan Occupational Special Population Association's (MOSPA) State Conference. The conference provided opportunities for secondary and post-secondary coordinators to build linkages and address the needs of special populations' students transitioning from secondary to post-secondary institutions. The conference theme, "GRIT-Where Perseverance Meets Passion" provided participants with information on the latest research and best practices for assisting student's success. Caroline Adams Miller, MAPP, keynote speaker, has been a pioneer and groundbreaker in the areas of goal setting/accomplishment, grit, happiness and success. She is recognized as one of the world's leading positive psychology experts on researching GRIT and how it can be applied to one's life to promote transformation and growth.

The annual TRENDS in Occupational Studies Conference continues to provide a means for colleges to learn about the latest research, technology, best practices, and innovations in CTE. Additionally, the conference provides technical and content assistance to CTE faculty, staff and administrators via workshops, meetings, round table discussions, general sessions, and networking opportunities. In 2016 approximately, 360 attendees, over 93 separate workshops and 30 CTE exhibitors were featured during the conference. Keynote speaker, Dr. Terrell Strayhorn, Professor, Department of Educational Studies, College of Education and Human Ecology at The Ohio State University, presented on "Being a Cultural Navigator for Students as They Explore Connections of College and Career". Student's success was stressed as a critical goal in higher education. Understanding the college's values, codes of behavior, codified language, traditions, and rituals is essential for success. CTE educators were challenged to reimagine their roles as "cultural navigators" and to work collaboratively to steer students on a path to belonging and success.

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?

Secondary

On January 18, 2017, the OCTE conducted a data workshop where stakeholders received technical assistance on strategies to improve performance on their nontraditional indicators (6S1 and 6S2). Stakeholders were led by the National Association of Partnerships in Equity (NAPE) to work through a nontraditional tool kit along with Michigan- specific nontraditional data exercises.

Technical assistance is a continuous effort involving all staff in the OCTE and occurs through phone calls and e-mail communication on a daily basis. Technical assistance is also provided through annual meetings with new and current CTE administrators, new CTE teachers, teachers of specific career cluster areas in specific regions, data staff, grant administrators, counselors, and special populations coordinators.

Technical assistance also focused on data use, specifically, subgroup analysis, including by special populations categories and race by gender. Technical assistance in support of data quality was provided through in-person trainings across the state as well as through semi-monthly conference calls with data entry staff. Monthly webinars were offered to provide technical assistance on implementing state technical skill assessments.

The OCTE special populations representative attended and presented at the Michigan Transition Services Association, Michigan Association of Administrators of Special Education, Bureau of Services for Blind Persons, and the Special Populations Conferences. The presentations provided guidance on inclusion of students with disabilities in CTE programs. Program data of student participants, concentrators, and completers and explaining the difference between accommodations and modifications in CTE programs was shared. The representative also continued to publish the quarterly Special Populations bulletin to Special Populations Coordinators and CTE Administrators. This bulletin has information for assisting students within special populations and acknowledges the excellent work done by both special populations staff and students in Michigan. The representative continues to offer support to CTE programs and other organizations that are affiliated with CTE when requested to do so.

The OCTE gender equity consultant attended and presented at the Career Education Conference, the Michigan School Business Officials Conference, and the Career Education Planning District (CEPD) Counsel summer workshop. The consultant provided guidance on Title IX and CTE, LGBTQ issues, nontraditional students in CTE, gender equity, and 6S1 and 6S2 CPIs and improvement plans.

Individualized technical assistance was provided to three consortia to assist CTE teachers in understanding their Core Performance Indicators, including what the CPIs are, the definitions, cell suppression, regional trends, how to obtain the data and data dashboards. Information on CPI data was also shared at the New Teacher workshop.

The OCTE continued to provide individualized technical assistance to community colleges interested in developing statewide articulation agreements, resulting in three new agreements.

Technical assistance was provided to intermediate school districts interested in starting early/middle colleges with state-approved Career and Technical Education programs to receive 61b formula funding. Webinars and conference calls were provided discussing eligibility requirements and completion of program serial number forms.

Each year the Michigan Women's Commission partners with the Office of Career and Technical Education (OCTE) to provide a one-day conference entitled "Young Women, Strong Leaders." A postsecondary institution hosts college women who are interested in leadership roles. There are mentors, breakout sessions, and opportunities for networking to support young women who have expressed an interest in becoming a politician, a county commissioner, a chief executive officer, or other leadership role.

Michigan employs an equity education consultant to facilitate and support continued advocacy for increased enrollment in nontraditional career and technical education (CTE) programs. This person provided training in the field on multiple occasions in regards to gender equity in CTE, including providing training on the USDE OCTAE and USDE OCR joint guidance issued in regards to Title IX and CTE.

The OCTE hosted the 2017 MOA Coordinator's Conference, May 15-18, 2017. The conference brought Methods of Administration Coordinators from around the United States and Puerto Rico, along with staff from the USDE OCR, to Ann Arbor, Michigan for a training on equity and access in CTE. This conference included a mock onsite review of facilities at the University of Michigan. A key element of this training is nontraditional students and ensuring equity and access. The OCTE Gender Equity consultant planned, attended, and hosted the conference in order to ensure OCTE is able to assist schools in providing equity and access to CTE programs for nontraditional students in Michigan.

Perkins nontraditional program areas have been identified, reflecting current state program CIP codes and labor market changes. During the OCTE Civil Rights compliance reviews, data analysis and monitoring protocol includes access to programs for nontraditional students. The OCTE houses the MDE Title IX coordinator, who provides resources to LEAs. The OCTE also supports the Michigan Occupational Special Populations Association professional organization addressing all SPOPS, including nontraditional.

The Michigan Breaking Traditions Award program provides an avenue to recognize and encourage student achievement in nontraditional training and provides role models for other students considering a nontraditional career. In 2016-2017, 32 outstanding Michigan secondary students pursuing nontraditional training were recognized. Parents, teachers, counselors, and students joined with the OCTE staff to recognize the unique achievements of these students.

A member of the OCTE staff participates in weekly National Alliance for Partnerships in Equity (NAPE) conference phone calls as a member of NAPE's Public Policy Committee. This participation ensures that OCTE stays current on issues effecting nontraditional students.

Postsecondary

The State has made concerted efforts to support continued preparation of students for non-traditional training and employment and for programs leading to high-skill, high-wage, or high-demand careers. Developing activities that meet the above criteria is essential for state approval of activities in occupational programs.

Perkins funds supported outreach to continue linkages between secondary and post-secondary career education programs, informing students of non-traditional high-skill, high-wage, or high demand career opportunities. Information on non-traditional career opportunities are advertised through mentoring, marketing brochures, college catalogs, presentations, posters, career guidance, campus visits, campus websites, career fairs, guest speakers, community awareness and curriculum development, inclusive of materials for students pursuing non-traditional careers.

Maintaining communication and collaboration with industry and employers via advisory board representation, internships, apprenticeships, and Michigan Works! Agencies allowed institutions to remain current on high-skill, high-wage, or high demand careers and the skills required to be employed. The information captured is distributed to career and technical education students, used to revise curriculums and develop new programs. Mentoring and hiring faculty in non-tradition careers allowed students to observe, be trained and receive real-life experiences from individuals in non-traditional careers.

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?

Secondary

The Special Populations Coordinator published a quarterly Newsletter highlighting CTE programs that have supported students within special populations categories. The Newsletters highlights success stories, strategies, tips, and gives helpful resources to programs to assist in supporting students. The Coordinator also attended the Michigan Transition Services Association Conference and presented CTE general information and Special Populations data to transition coordinators to assist them in recruitment of special populations students into CTE programs. The OCTE also has a special populations website that has resources to support programs.

The OCTE hosted the 2017 MOA Coordinator's Conference May 15-18, 2017. The conference brought Methods of Administration Coordinators from around the United States and Puerto Rico, along with staff from the USDE OCR, to Ann Arbor, MI for a training on equity and access in CTE. This conference included a mock onsite review of facilities at the University of Michigan. A key element of this training is special populations students and ensuring equity and access for all special populations categories. The OCTE Civil Rights Compliance Review consultant planned, attended, and hosted the conference in order to ensure OCTE is able to assist schools in providing equity and access to CTE programs for special population students in Michigan. A key element of OCTE's CRCR reviews is providing technical assistance to schools in Michigan regarding CTE opportunities, equity, and access for Special Populations students.

Postsecondary

The State has included the components of high-skill, high-wage, and high-demand as part of state program approval for occupational programs and as a required component of all program evaluation that occurs at the post-secondary level. Special population needs are addressed through support of organizations advocating for special population students, through activities and expenditures requested in the Local Annual Application and as part of any program evaluation. In-service workshops and technical assistance was provided by the State, on high-skill, high-wage, and high-demand programs and how to support special populations within individual community colleges.

The New Dean's In-service not only expanded the use of technology during training, but it also provided insight into state and federal regulations related to services for special population students in career and technical education. On-site monitoring visits included technical assistance to identify evidences that support services for special populations for in-demand occupations. Technical assistance and evidences provided include, records supporting internships and apprenticeships, participation on advisory committees, mentoring opportunities, college catalogs, marketing materials, professional development activities, hiring of faculty, and purchase and training on current industry approved equipment.

In 2016, the Michigan Post-Secondary Special Populations Council (MPSSPC) sponsored a pre-conference workshop prior to the TRENDS in Occupational Studies Conference. The speaker, Kevin Sutton, attorney at Lusk Albertson, provided information on legal issues pertaining to the Lesbian, Gay, Bisexual, Transgender, Questioning (LGBTQ) community and how LGBTQ legal issues may impact the use of Perkins funds and how services are provided to the LGBTQ community.

In 2017, additional support to faculty who serve special population students was provided by the MOSPA and MPSSPC. The MOSPA 2017 Annual Conference, titled "GRIT-Where Perseverance Meets Passion" highlighted Caroline Adams Miller, MAPP, and author of five books, including *Positively Caroline*, *Creating Your Best Life* and *Getting GRIT*". Ms. Miller discussed why GRIT is so important to flourishing life, who has it, and how to cultivate, amplify, and teach it when working with students.

These professional development activities provided information and strategies to assist occupational faculty ensure that the needs of special population students are well served at the post-secondary level and are prepared for high-skill, high-wage, and high-demand occupations.

Institutions partnered and coordinated services with other programs in and out of TIA. Partnerships allowed for the state and local coordination of services with the Michigan Department of Education, Center for Educational Performance and Information, Office of Career and Technical Education, Michigan Bureau for Services for Blind Persons, Michigan Rehabilitation Services, TIA Work-Based Learning, TIA Outreach Services, Michigan Works! Agencies, and other U.S. Department of Labor sponsored workforce programs.

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

Secondary

The OCTE conducted a Fall workshop where data on the 2016 Follow Up survey was shared with administrators from statewide consortia. The Follow Up survey is used to calculate the statewide placement rate (5S1). A new data dashboard that displayed five-year trends on placement rate, employment rate, and continuing education rate was provided to stakeholders that allowed users to view their data at the regional, CEPD, and program levels. On January 18, 2017, the OCTE conducted a data workshop where stakeholders received technical assistance on strategies to improve performance on their nontraditional indicators (6S1 and 6S2). Stakeholders were led by the National Association of Partnerships in Equity (NAPE) to work through a nontraditional tool kit along with Michigan-specific nontraditional data exercises.

Technical assistance is a continuous effort involving all staff in the OCTE and occurs through phone calls and e-mail communication on a daily basis. Technical assistance is also provided through annual meetings with new and current CTE administrators, new CTE teachers, teachers of specific career cluster areas in specific regions, data staff, grant administrators, counselors, and special populations coordinators.

Technical assistance also focused on data use; specifically, subgroup analysis, including by special populations categories and race by gender. Technical assistance in support of data quality was provided through in-person trainings across the state as well as through semi-monthly conference calls with data entry staff. Monthly webinars were offered to provide technical assistance on implementing state technical skill assessments.

The OCTE special populations representative attended and presented at the 2017 Michigan Transition Services Association. The presentation provided guidance on inclusion of students with disabilities in CTE programs. Program data of student participants, concentrators, and completers and explaining the difference between accommodations and modifications in CTE programs was shared. The representative also continued to publish the quarterly Special Populations bulletin to Special Populations Coordinators and CTE Administrators. This bulletin has information for assisting students within special populations and acknowledges the excellent work done by both special populations staff and students in Michigan. The representative continues to offer support to CTE programs and other organizations that are affiliated with CTE when requested to do so.

The OCTE gender equity consultant provided guidance on Title IX and CTE, LGBTQ issues, nontraditional students in CTE, gender equity, and 6S1 and 6S2 CPIs and improvement plans.

Individualized technical assistance was provided to three consortia to assist CTE teachers in understanding their Core Performance Indicators (CPI), including what the CPIs are, the definitions, cell suppression, regional trends, how to obtain the data, and data dashboards. Information on CPI data was also shared at the New Teacher workshop.

The OCTE continued to provide individualized technical assistance to community colleges interested in developing statewide articulation agreements, resulting in three new agreements.

Technical assistance was provided to intermediate school districts interested in starting early/middle colleges with state-approved Career and Technical Education programs to receive 61b formula funding. Webinars and conference calls were provided discussing eligibility requirements and completion of program serial number forms.

Postsecondary

The State provided technical assistance, in the form of webinars and trainings, related to the rollout of the new Local Annual grant application, as referenced earlier. The State sponsors numerous conferences held throughout the year, (TRENDS in Occupational Studies Conference, Career Education Conference, MOSPA Conference, New Dean's Orientation, MEATA Conference, and the Annual Data Workshop). In addition to planned compliance and technical assistance visits on community college campuses, daily technical assistance is provided through telephone and electronic communications. Administrative updates and technical assistance is also provided through the five regularly scheduled MODAC, MOSPA, and MPSSPC meetings.

7. Serving individuals in state institutions

Part I: State Correctional Institutions

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

247000

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

1981

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

Michigan serves incarcerated youth through the Department of Health and Human Services, Bureau of Juvenile Justice, by supporting an instructor at the Bay Pines Center. The Center served 52 students in the program. Students learn the everyday responsibilities of working in a functional restaurant. Students serve customers, get experience in menu design, prepping food to order and maintaining a clean environment. Food Safety Education is the focus throughout the journey. These practices help the students in the classroom gain an understanding to successfully earn their food safety certifications. Students participate in the United Way Chili Challenge every year. Bay Pines Center also hosts a luncheon for local community leaders, Christmas dinner and monthly CAC meetings that are catered by the students every year.

Students are trained in Red Cross CPR, First Aid, AED, EpiPen and Blood Bourne Pathogens. A majority of students gain a Red Cross Certification in CPR, First Aid and AED after classroom and practical training. Students donate their time to set up Red Cross blood drive four times a year.

Students are taught how to build a resume, employment search, and participate in mock interviews after documenting and organizing all the skills and earned certificates.

Michigan also awarded funds to the Department of Corrections to serve incarcerated adults. Fiscal year 2016-2017 saw many changes, additions and improvements to Career and Technical Education programs offered by the Michigan Department of Corrections.

The Department expanded the Vocational Village concept that was implemented at Richard Handlon Correctional Facility (MTU) in Ionia in January of 2016. Parnall Correctional Facility (SMT) is now the second Vocational Village to open and is providing new demand driven vocational opportunities for paroling prisoners to assist them in obtaining employment post release. Commercial Truck Driving (CDL) is a new vocational trade that will allow participants completing the program to earn a Temporary Instructional Permit (T.I.P) from the Michigan Secretary of State. Students complete course work in the Michigan Commercial Driver License Manual and also learn proper ways to pack, eat, maintain health and hygiene while on the road. Students experience simulated driving through a state of the art Doron Driving Simulator. Multiple driving scenarios are programmed into the simulator to allow the most realistic driving challenges a commercial truck driver may experience while on the road. Students completing this portion of the program are then partnered with a Truck Driving Company that will hire them and complete the additional on the road driving tests that are not permitted in a correctional facility. Once passed and complete with on the road tests students will be granted their CDL License. Five Fanuc Robots were added to the CNC-Machine Tool program at SMT. Student completing the CNC program also received a Fanuc certification. This demonstrates they have knowledge in robotic programming, operation, maintenance and handling. These machines are very standard in the industry and this added certification assists with employability for our returning citizens. Additional CTE programs also offer at SMT include Concrete and Masonry, Carpentry and Automotive. All Vocational Village participants receive Forklift Certification as part their CTE Curriculum.

52-foot mobile welding trailer was purchased for the welding programs at Kinross Correctional Facility (KCF) and Newberry Correctional Facility (NCF). The trailer will be shared between both welding programs and allow students to complete practical exercises needed to complete certification. This trailer is equipped with eight welding booths and all the welding equipment needed to complete certification. Additional welding simulators were purchased for Newberry Correctional Facility so students can practice simulator activities when the trailer is at the other facility.

The Welding Program was updated and aligned with National Center for Construction Education and Research (NCCER) and American Welding Society (AWS) to allow certification. Students completing the welding program will now receive both NCCER certification and AWS SENSE certification when completing the program. A certification "card" will be issued for both.

Horticulture program has purchased new books and developed a new curriculum for state certification in Pesticides through Michigan Department of Agriculture and Rural Development (MDARD) and Certified Green Industry Professional (CGIP) through Michigan Nursery and Landscape Association (MNLA). Additional curriculum was purchased to allow students experience in hydroponics. Hydroponics supplies were purchased for three facilities and curriculum was developed to explore further employment opportunities in the ever-growing agriculture field.

Regional Training was provided to Employment Counselors to better assist with the Vocational Counseling Process and offer better understanding of how to enter information into the Departments Offender Management Network Information (OMNI) system. The counseling process was further reiterated and the importance of getting the correct prisoner in the right program at the right time was emphasized.

Perkins funds supported professional development for instructors and new equipment to replace aging equipment in Building Trades, Auto Mechanics, CNC/Robotics, Food Technology, Horticulture, Welding, Custodial Maintenance and Optical.

The average monthly enrollment of prisoners in a Career and Technical Education programming was 1,929. The following are the total completions by trade for fiscal year 2016-2017:

Auto Mechanics - 60
 Building Trades – Carpentry- 267
 Building Trades – Masonry/Concrete- 33
 Building Trades – Plumbing/Electrical- 141
 Custodial Maintenance- 229
 Employment Readiness- 4429
 Food Technology- 356
 Horticulture- 144
 CNC/Machine Tool- 18
 Optical- 38
 Welding- 94
 Printing- 31

The following is a list of CTE programs approved and offered within the MDOC:

• Auto Mechanics • Building Trades – Carpentry
 • Building Trades – Masonry/Concrete • Building Trades – Plumbing/Electrical
 • Custodial Maintenance • Employment Readiness
 • Food Technology • Horticulture

ÿ CNC/Machine Tool/Robotics ÿ

Commercial Truck Driving- CDL

ÿ Optical ÿ Welding

Note: Forklift Certification is offered at MBP, MTU, SMT

Part II: State Institutions Serving Individuals with Disabilities

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

0

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

0

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

Not Applicable

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

Yes

Secondary

All eligible charter schools are invited to participate in developing the annual grant application and to participate in the Perkins regional grant activities. To increase charter school participation, OCTE has a requirement that CTE Perkins grant applicants must document their efforts to include all educational agencies that want to operate CTE programs or have students who want to enroll in CTE programs in the planning and availability of services.

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

No

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?

No

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?

No

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?

No

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Michigan

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?

Secondary

Michigan signed a Memorandum of Understanding with the Council of Chief State School Officers to become a Tier 2 state in the Career Readiness Initiative (CRI). A two-day stakeholder meeting with representatives from employers, education organizations, the Workforce Development Agency, and the Department of Education was held on May 17-18. Participants reviewed the six objectives of the CRI and completed a needs assessment regarding Michigan's Career Readiness System, and began work on a strategic planning document.

Concurrently, the Governor convened a group of stakeholders to make recommendations regarding Michigan's Career Pathways system—the Michigan Career Pathways Alliance (MiCPA). Many of the recommendations address ways to improve CTE and increase access to high quality CTE.

An alignment document showed how the CRI objectives aligned with the recommendations of the Governor's Talent Investment Board, MDE's Top 10 in 10 Year goals and strategies, and the recommendations of the MiCPA, along with other state initiatives such as Michigan's ESSA and WIOA plans.

The closest partners to achievement are within MDE offices that work on school reform, school improvement, and academic assessment. OCTE also works closely with many external partners to promote positive learning opportunities for students. Some of those partners include the Michigan Occupational Deans Administrative Council, the Michigan Apprenticeship Steering Committee, MEATA, and many professional associations that support CTE teachers. OCTE works in coordination with these partners to assure that students are adequately supported for success in rigorous academic standards and the completion of grades 9 through 14 programs of study (POS).

The State Superintendent has also embarked in a long-term improvement strategy to make Michigan a top 10 state for education within 10 years. The plan calls for extensive partnerships between multiple stakeholders and will require intensive collaboration to implement the strategies. The work is currently being defined but includes building a P-20 system, options (including CTE) for students and a focus on work-based experiences for students.

The Advisory Committee Tool Kit contains information that was put together to help facilitate communication and to establish an active Advisory Committee Team. This publication contains guidelines and recommendations for secondary CTE Program Advisory Committees as they work to improve CTE programs. The Tool Kit contains common definitions, a general process to follow, and issues to consider in order to make the best use of these community, business, and industry resources. The Tool Kit is available electronically on the OCTE website.

OCTE created and updated a Parents as Partners Tool kit for many years and housed it on the OCTE website. Now that the information in the tool kit has been merged with that of the MDE parent site, there is one main place on the MDE website for parents, schools, and districts to access information and research resources. The site is called Collaborating for Success—Parent Engagement Toolkit. The site is also offered in Spanish and Arabic. (www.michigan.gov/mde) This last year this page had 15,200 page views.

OCTE continued to work closely with the Workforce Development Agency (WDA) in implementing new state school aid categorical funding for Early/Middle College (E/MC) and dual enrollment CTE programs. The agencies collaborated closely in developing the eligibility criteria for the funding and reviewing the regional strategic plans. Prosperity regions were required to develop partnerships between secondary and postsecondary institutions to develop E/MC programs eligible for the funds.

OCTE also was an active partner in the Michigan Energy Workforce Development Consortium (MEWDC). The MEWDC is an industry/employer-led initiative that worked to identify a common crosswalk for energy job tasks and ultimately to develop a talent pipeline management strategy for careers in the energy industry. Using the U.S. Chamber of Commerce talent pipeline methodology, industry and education continue to explore workforce demand and training.

OCTE continues to collaborate with the Center for Educational Performance and Information on the ways to share secondary and postsecondary data.

The OCTE continued to work with its vendor, PTD Technology, to develop an industry-based certification/credential repository with all certifications/credentials that are administered to CTE students. This repository will be essential to determine which certifications/credentials are of value to employers.

The OCTE continued to participate in a cross-agency collaboration in order to finalize the creation of a system that will display actual disaggregated occupational data for students who have completed state-approved CTE programs. This system will allow students to not only compare occupations, but also allow them to compare occupational facts such as wages (yearly and hourly), unemployment rates, median debt, job placement, current openings, and time to employment based on educational level. This web-based, user-friendly data dashboard will bring education, employment, and labor market data together to inform decision-making and planning for students, parents, schools and employers. The system is live as of fall 2017.

The OCTE worked collaboratively with the Governor's Talent Investment Board (GTIB) to build a strong workforce system aligned with state education policies and economic development goals. OCTE staff and GTIB worked to identify issues affecting the state's talent enhancement effort. Then, recommend solutions to the Governor and state departments to guide workforce investment and training at both the state and local levels.

Annually, OCTE provides a variety of technical assistance activities and guidance on the National Career Cluster standards and the academic standards embedded within CTE program standards. Teachers are asked to complete a gap analysis of their curriculum against the state CTE and academic standards. This process helps local districts assess strengths and weaknesses in the local curriculum to strengthen the CTE program of study. This will ensure quality programs for students using employer-endorsed national technical standards, as well as a focus on the academic content that may be earned within those programs.

Each year, OCTE awards two Excellence in Practice (EIP) Awards. The Career and Technical Education Program Excellence in Practice Award recognizes successful, exemplary state-approved CTE programs that demonstrate outstanding outcomes, produces measurable results, and leads to documented success in employment or postsecondary education/training. The Career and College Readiness Initiative Excellence in Practice Award recognizes outstanding practices, programs, or services that demonstrate exemplary support of career/college planning for students (that include their interests, abilities, and skills), promotion of high academic expectations, and linking secondary course taking (including CTE) to preparation for postsecondary education and careers. The EIP Awards are awarded annually at the Michigan Career Education Conference.

Many Michigan CTE students have expanded their learning while still in high school due to the opportunity for dual enrollment in postsecondary institutions in academic, as well as occupational, coursework. Dual enrollment legislation has recently been revised to allow students in grades 9-12 to participate and to take up to 10 college courses before leaving high school. OCTE provides guidance to secondary and postsecondary partners to refine and develop articulated programs for students to have a seamless transition from secondary to postsecondary, as well as help with utilizing resources so that programs are available to more students. OCTE is able to report that each year more of the secondary CTE programs in Michigan have articulated agreements with the community colleges.

Recent legislative changes have enabled more options for students to use CTE programs to meet certain graduation requirements. Students may substitute a science credit and a year of foreign language instruction by completing a CTE program.

To remove barriers to curriculum integration, Michigan has developed guidelines for awarding academic credit through CTE, humanities, and other courses. Governor Rick Snyder, State Superintendent Brian Whiston, and the Michigan State Board of Education support flexibility in education with rigorous expectations. School districts are encouraged to provide opportunities for students to receive rigorous instruction "any time, any place, any way, and any pace," and to move away from traditional courses and seat time measures.

The legislature also passed a law that requires school districts to notify students that CTE instruction in an available option. A website repository of CTE best practices has also been required.

New and emerging high school programs such as mechatronics, pre-engineering, alternative energy, and other STEM areas have begun to expand. School districts continue to be interested in starting Early/Middle Colleges. These schools are unique in that they are five year programs that require a three-way partnership between secondary, postsecondary, and business and industry. Students earn a high school diploma and an associate degree or certificate upon completion. Michigan now has 123 Early/Middle Colleges operating across the state.

Postsecondary

General education core competencies are established within all programs at institutions receiving Perkins funds. Students enrolled in occupational programs, as those enrolled in non-occupational programs must therefore, meet institutional learning outcomes and demonstrate that they have mastered the general education competencies in order to earn a certificate or degree. Each institution receiving Perkins funds includes relevant and rigorous academic content that is integrated into the instructional content of career and technical education courses and programs. All career and technical education programs provide a guided pathway for completion of the program. The guided pathway, maps a sequence of courses, including general education courses, pre-requisite and technical courses required to be successful in the program. Academic and career advising is based on the specific requirements for the program in order to support, and improve the student's success. Career and technical education course requirements are provided on campus websites, college catalogs and within the Counseling and Advising offices.

Many institutions receiving Perkins funds continue to support and market early college credit earning opportunities through the various programs that support articulated credit, dual enrollment, and direct credit in post-secondary institutions in academic and occupational course offerings. Receiving early college credit while in high school may reduce the amount of time required to receive a certification or degree at the post-secondary level, but it does not eliminate the requirement to complete all post-secondary institutional courses needed for completion of the career and technical education program. The State supports the linkages between secondary and post-secondary education institutions through the development of articulation agreements to ensure that career and technical education students make a smooth transition and are prepared for the rigors of post-secondary education.

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.

Secondary

The closest partners to achievement are within MDE offices that work on school reform, school improvement, and academic assessment. OCTE also works closely with many external partners to promote positive learning opportunities for students. Some of those partners include the MODAC, the Michigan Apprenticeship Steering Committee, MEATA, and many professional associations that support CTE teachers. OCTE works in coordination with these partners to assure that students are adequately supported for success in rigorous academic standards and the completion of grades 9 through 14 programs of study (POS).

The State Superintendent and MDE staff are actively supporting a long-term improvement strategy to make Michigan a top 10 state for education within 10 years. The plan calls for extensive partnerships between multiple stakeholders and will require intensive collaboration to implement the strategies. The work is currently being implemented and includes building a P-20 system, options (including CTE) for students and a focus on work-based experiences for students.

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OCTE worked closely with the Workforce Development Agency (WDA) in implementing new state school aid categorical funding for Early/Middle College (E/MC) CTE programs. The agencies collaborated closely in developing the eligibility criteria for the funding and reviewing the regional strategic plans. Prosperity regions were required to develop partnerships between secondary and postsecondary institutions to develop E/MC programs eligible for the funds.

OCTE also was an active partner in the Michigan Energy Workforce Development Consortium (MEWDC). The MEWDC is an industry/employer-led initiative that worked to identify a common crosswalk for energy job tasks and ultimately to develop a talent pipeline management strategy for careers in the energy industry. Using the U.S. Chamber of Commerce talent pipeline methodology, industry and education continue to explore workforce demand and training.

OCTE collaborated with WDA on the Moving Pathways Forward initiative designed to connect individuals to career pathways resources and activities. Meetings during the past year focused on building and strengthening critical partnerships to implement career pathways systems programs across the state.

The OCTE worked collaboratively with the Center for Educational Performance and Information and implemented a Student Pathways file that shows student-level information on college enrollment, coursework, cumulative credit, program and award information, and grade point averages (GPAs) earned by Michigan high school graduates and Michigan college and university students. This file will allow both high school CTE programs and postsecondary programs to view shared student-level data.

The OCTE is also working with its vendor, PTD Technology, to develop a college portal to allow postsecondary institutions to view articulated credit earned by a student in a CTE high school program. It is anticipated that this portal will be implemented in the near future.

The OCTE is participating in a cross-agency collaboration on the creation of a system that will display actual disaggregated occupational data for students who have completed state-approved CTE programs. This system will allow students to not only compare occupations, but also allow them to compare occupational facts such as wages (yearly and hourly), unemployment rates, median debt, job placement, current openings, and time to employment based on educational level. This web-based, user-friendly data dashboard will bring education, employment, and labor market data together to inform decision-making and planning for students, parents, schools, and employers.

The OCTE worked collaboratively with the Governor's Talent Investment Board (GTIB) to build a strong workforce system aligned with state education policies and economic development goals. OCTE staff and GTIB continue to work to identify issues affecting the state's talent enhancement effort; then, recommend solutions to the Governor and state departments to guide workforce investment and training at both the state and local levels.

OCTE is also working closely with the Michigan Talent and Economic Development agency and the Michigan Career Pathways Alliance Initiative.

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The OCTE worked collaboratively with the Governor's Talent Investment Board (GTIB) to build a strong workforce system aligned with state education policies and economic development goals. OCTE staff and GTIB worked to identify issues affecting the state's talent enhancement effort; then, recommend solutions to the Governor and state departments to guide workforce investment and training at both the state and local levels.

Postsecondary

The office which administers Perkins funding to post-secondary programs is strategically placed in the Workforce Development agency within Michigan's Talent Investment Agency. The State attends educational advisory meetings and convenes industry sector groups to identify employer needs and the competencies necessary for employment. These sector groups include colleges, community members, and local business members. Each Perkins percipient must convene occupational advisory boards, comprised of local stakeholders, to help inform and further academic standards.

The annual Governor's Education and Talent Summit brings together educators, businesses and community leaders to showcase their efforts to work together on opportunities for students to gain in-demand skills. "Best Practices" for community and employer engagement can be found on the MCCNET website. MODAC and MCCDEC must collect and compile "Best Practice" information and activities to serve as a resource for all community colleges to use in supporting occupational student success.

Another part of Michigan's effort to lead the nation in building a skilled workforce is through the Community College Skilled Trades Equipment Program (CCSTEP). The CCSTEP awarded \$50 million to 18 community colleges in Michigan to purchase instructional equipment, in occupational areas, to address the strong demand for hard-to-fill positions. The CCSTEP, offered on a competitive basis, funds to community colleges for the purchase of equipment and related costs, including installation, renovations, and instructor training.

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

Yes

Secondary

MDE participated in planning for a new web-based career exploration and planning a tool, Michigan Pathfinder, for 7th-12th grade students and adults that houses college programs, career information, job openings, and return on investment in training for a variety of employment opportunities.

Efforts are made, on an ongoing basis, to support career guidance and academic counseling programs. During the year, support is provided by working with CTE regions on specific guidance and counseling activities within their grant applications. In addition, OCTE staff attend and present at other events, conferences, and in-services. An OCTE staff member serves as a member of the Michigan School Counselor Association and OCTE has provided funding to help support their conference and assisted in planning the statewide school counselor conference including identifying speakers on career guidance topics. Conference speakers provided valuable and effective information and/or resources for counselors to utilize in their current roles to more effectively assist their constituents.

The Going PRO continued to promote skilled trades with a website, billboards and TV and radio spots.

Postsecondary

in-service and technical support workshops were held with different community college employees that support career guidance and academic counseling programs. Post-secondary faculty received in-service training from participation in the TRENDS in Occupational Studies Conference, the Michigan Career Education Conference, MODAC meetings and the MOSPA Conference. The state also held a New Dean's In-Service Training to assist new and/or seasoned Deans understand Federal legislation, and requirements for the use of Carl D. Perkins funds. These professional development opportunities are necessary to assist special population coordinators to become and remain current in research, services, and laws that apply to special population students. To ensure special population students are receiving appropriate services as mandated, students must have an Educational Development Plan (EDP), which serves as a plan to guide their academic journey. Perkins funds expended at the institution provided support for counselors and advisors working with special population and career and technical education students to develop EDPs and to assess needs for tutoring, mentoring, financial support, internships, apprenticeships, child care, accommodations and training. Counselors and advisors assisted career and technical education students, plan course schedules, locate resources to meet their needs, identify needs of employers, explore career options, interpret program and institution guidelines and make appropriate choices for transfer to a four-year institution, if appropriate.

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

Secondary

Perkins funds were utilized to begin development of an electronic system to track articulated credit for students and helped to support ongoing work on statewide articulation agreements including a conference call with postsecondary institutions interested in developing statewide agreements with secondary programs. Existing statewide agreements were updated, new agreements were developed, and links to the participating colleges were posted on a statewide articulation web page.

Postsecondary

As part of Perkins requirements, post-secondary institutions throughout the state continue to establish articulation agreements with their local partners (secondary schools) to implement Programs of Study. These agreements afford secondary students the opportunity to enter into career and technical education programs, take classes while in high school, receive dual enrollment credits, and upon graduation from high school, enter college and work towards certification, an Associate's Degree, or transfer to a four-year institution. Perkins funds were also used by post-secondary institutions to host secondary students on their campuses to introduce students to career and technical education programs.

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

Postsecondary

Each of Michigan's 28 public community colleges has one or more campus-based university extension programs. Some have separate facilities that house four-year university programs so that students can dual enroll in two-year and four-year Programs of Study. Three public universities and one tribal college, Ferris State University, Northern Michigan University, Lake Superior State University, and Bay Mills Community College receive Perkins funds and offer associate degrees in occupational programs in their respective communities and afford students the opportunity to transition and continue their program of study to receive a baccalaureate degree. Community colleges are also expanding the number of articulation agreements with universities.

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

Yes

Secondary

OCTE supports six of the nine secondary national student organizations who are recognized by the U.S. Department of Education and the U.S. Department of Labor through a modest competitive grant and technical assistance. Semi-annual meetings with all directors and ongoing communication with the respective CTE program consultants, as well as assistance to field instructors and administrators, helps ensure that all students in state-approved CTE programs have the opportunity to develop strong leadership skills. The CTSOs vigorously recruit new members, strongly support academic excellence and give special attention to students with unique needs. These priorities are hallmarks of Career and Technical Student Organizations.

Competitive skilled and leadership events promote win/win opportunities as students work at their own pace toward set goals. Events designed for individual and/or student teams showcase the diverse talents of all participants and aims at improving employability skills. Student leadership is an integral component of the career and technical education curricula in all CTE clusters. Although not mandated, many instructors utilize CTSOs to meet the leadership compliance evidence of state-approved CTE programs. Students take a written test prior to skill and leadership competitions so that competitive activities may be configured to promote academic rigor and help all students, (including special populations), grow into their personal best.

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

Secondary

Michigan CTE programs must provide students with a strong experience in all aspects of the industry. Students need to have technical skills, but also need a comprehensive understanding of the industry that they are preparing to enter.

Approved CTE programs must include the array of occupations and careers that comprises an industry, from the most basic to the most advanced. Curriculum must include principles of technology, labor and community issues, health and safety issues, and environmental issues related to such industry. Students should be able to demonstrate knowledge of the planning, management, finances, technical, and production skills for the industry relating to the program. All programs incorporate state and/or national level industry-related skill standards.

All instruction must include emphasis on the skills that employees of the future will need. Academic studies focus on the mathematics, communications skills (reading and writing), and sciences, in the context of the students' career cluster, using an applied or contextual approach. Curriculum content incorporates community issues related to the industry, environmental issues raised, economic issues, finance, health issues, labor issues, leadership/ management, safety, technological skills, marketing, and underlying principles of technology. All aspects of the industry are available to all students in approved CTE programs, regardless of future education and employment plans.

Postsecondary

The State actively provides support to MEATA and its annual conference. MEATA helps coordinate the development and provision of apprenticeship and training through research, leadership, and innovative practice by workforce organizations, collaborating community colleges, and economic development partners. Annual meetings bring these partners together to share innovations and practices to improve employee training. The conference brings together employers, State partners, college administrators, and business representatives across Michigan to provide a forum for professional development of secondary and post-secondary individuals involved in apprenticeships and work based education.

The post-secondary institutions offer the services of counselors, advisors, and student navigators to provide assessments for students to determine interests and to assist in career planning, including wage data and employment opportunities. Career opportunities are presented to students using an online system with participating employers, in addition to hosting multiple Career Expos. Career Services departments at the institutions maintain a business and industry database so that students are aware of work-site opportunities for job-shadowing, internships, apprenticeships, co-ops, and even full-time positions. Career Services sponsored a number of activities to share knowledge about industry and employment issues, focusing on skills required for employment in a specific field and what potential employers expect from employees.

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

Secondary

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The OCTE is collaborating with Lansing community College to establish a statewide articulation in energy.

Postsecondary

Institutions that receive Perkins funds develop partnerships with business and industry in order to establish cooperative career education, work study, internships, externships, on-the-job training, and apprenticeships with an emphasis on work-based learning. Additionally, individuals from business and industry participate on advisory boards to assist institutions in identifying skills and adopting strategies that enable students to overcome barriers faced for employment in high-skilled, high-wage and high-demand occupations that lead to self-sufficiency. Institutions also recruit individuals from business and industry as adjunct faculty for occupational programs. The partnership between business, industry, and educational institutions is essential to promote access to and success in occupational programs.

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

Secondary

During the 2016-2017 year, the OCTE has continued supporting the growth and development of the 17th Career Cluster in Energy. This initiative was led by business and industry who have expressed great concern over the anticipated skilled worker shortage. Their efforts have brought together public and private, as well as large and small business owners, and postsecondary institutions to better define the skills and abilities needed by future workers. MDE and local education partners continue to work in collaboration with business and industry to be responsive to the needs of employers, and to develop the educational programs and resources that will result in positive outcomes for business, education, and students.

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

Yes

Secondary

The OCTE believes that expanding the availability of youth entrepreneurship education resources is a critical part of CTE. Since entrepreneurship programs have a proven track record of keeping students in school, each CTE program is encouraged to promote educational opportunities by using statewide standards for youth entrepreneurship education.

Entrepreneurship programs are monitored for quality by CTE staff. One of the curriculum segments in all Marketing programs is entrepreneurship. CTE students may also participate in entrepreneurial competitive events in CTSOs. Business partnerships continue to be stressed through a requirement that each program advisory committee must have a majority of their membership from the appropriate business and industry area.

Postsecondary

Perkins recipients have strengthened their efforts to increase entrepreneurship. The Entrepreneurial Center for Innovation and Development was developed as a strategy to accomplish this workforce development goal. Through the School of Continuing Education and Workforce Development, partnerships with business and industry in support of developing entrepreneurial opportunities have increased. Other institutions have developed entrepreneurial programs to encourage students to establish small business initiatives.

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

Secondary

State CTE staff continue to meet with higher education institutions and secondary career and technical education administrators to develop changes to the rules to prepare career and technical education teachers. The group is looking for policy that will not only bring flexibility because of a teacher shortage, but also maintain quality. In addition, the State Superintendent continued to support the second year of a pilot program that allows for flexibility in some state rules for the certification of CTE teachers. The pilot allows schools to hire a person who may not have all the recent and relevant work experience currently required. With intensive support from a mentor teacher, a professional development plan, and student success measures, local districts are able to build the classroom experience of these individuals for two years. Data will be collected on about 20 individuals participating in the pilot to assess whether or not the state should make permanent changes to the work experience requirements.

Three teacher education improvement grants were awarded to public universities that prepare and recommend high quality pre-service teachers for vocational certification. Michigan requires that all CTE programs be taught by teachers with specific and appropriate teaching certificates to receive federal and state funding. CTE teacher education institutions that received a Perkins grant were required to conduct activities that focused on the recruitment and retention of CTE teachers. These institutions also provided support to practicing teachers through in services, conferences, and other training opportunities. OCTE is currently collaborating with the OPPS in the development of new processes for an alternate route to teacher certification and advanced level credentials.

Annually, post-secondary institutions that receive Perkins funds must develop a plan to address the methods used to improve, recruit, and retain CTE teachers, faculty and career guidance and academic counselors, including groups underrepresented in the teaching profession in their annual application. The college's methods must include how individuals from business and industry will be supported through the transition to teaching. To ensure that the transition for new faculty is smooth, colleges have developed an array of programs. One such program is Faculty 101, which helps new faculty to feel connected and offers pedagogical support.

Careful consideration is given to approaches to marketing and advertising. Methods used to advertise and recruit qualified applicants include, newspapers (local, regional, state, and national), mailing lists (hard copy and electronic), professional journals, national publications, and at recruitment conferences/job fairs. In an effort to retain qualified faculty from business and industry in making the transition to teaching, colleges have held new faculty orientations, developed faculty development curriculum, provided mentoring by pairing new faculty with experienced faculty. Institutions may look more seriously from within and seek to develop those already committed to the profession and college. Professional development opportunities for skills enhancement are funded by Perkins and supported by all colleges. One college sponsors an annual Professional Issues Conference at the beginning of each winter semester. This conference, which faculty are required to attend, focuses on improving classroom instruction.

Institutions actively recruit CTE teachers, faculty, and career guidance and academic counselors who have origins related to special populations. Despite the challenges presented by one college's rural location and the very competitive job market for minority recruitment, the college has been fortunate to recruit several faculty members that are qualified and well experienced in their fields, and also Native American.

Postsecondary

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

Yes

Secondary

The OCTE created a new webpage linked to the OCTE website with links to real time job opening data, Michigan Labor Market Information, USDOL American Job Center network, the Economic Development and Employer Planning System, and the U.S. Census Bureau Longitudinal Employer-Household Dynamics page. Also, the OCTE staff prepared customized information sheets with supply information (secondary CTE enrollments and completers) for the ten prosperity regions for the Governor's Education and Employment Summit, met regularly with staff working with the Statewide Longitudinal Data System to begin to link secondary and postsecondary student data, and also began discussions with the WDA to link to the Workforce Longitudinal Data System.

The OCTE continued to participate in a cross-agency collaboration on the creation of a system that will display actual disaggregated occupational data for students who have completed state-approved CTE programs. In order to participate in this, a portion of an OCTE employee's FTE is dedicated solely to working on linking secondary CTE data to Labor Market Information. The system will allow students to not only compare occupations, but also allow them to compare occupational facts such as wages (yearly and hourly), unemployment rates, median debt, job placement, current openings, and time to employment based on educational level. This web-based, user-friendly data dashboard will bring education, employment, and labor market data together to inform decision-making and planning for students, parents, schools and employers. The system will be live Fall 2017.