

Consolidated Annual Report, Program Year 2015 - 2016 Massachusetts

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

Given significant budget constraints, now and into the foreseeable future, Massachusetts is currently developing a plan to identify technical skill attainment tests that are readily available, valid and reliable as part of the requirements for the award of the Certificate of Occupational Proficiency. We will be convening an advisory committee to revise the list of credentials that have value to industry. This year, the Office for College, Career, and Technical Education (OCCTE) began identifying potential committee members and developing the charge and scope of work for the committee. The committee will survey business and industry professional associations to identify valuable credentials and compile information regarding requirements for attainment of those credentials. OCCTE staff will also work with IT staff to explore enhancements to the current state Student Information Management (SIMS) system to record student attainment of specific competencies. The current system captures technical skill attainment in broad categories, not specific credentials.

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

School districts with career/vocational technical education programs continued to develop, improve, and expand the use of technology through implementation of the Massachusetts Vocational Technical Education Frameworks (VTEFs). The sixth standardized strand of each of the frameworks is entitled Technological Knowledge and Skills. This strand outlines specific learning objectives and competencies for computer applications; concepts underlying computer hardware and software; responsible use of technology including ethics and safety issues in using electronic media; and the use of technology for research, problem solving, and communication.

OCCTE staff conducted desk reviews of Perkins IV allocation grantees' budgets to ensure that funds are used by eligible recipients to develop, improve, or expand the application of technology in career and technical education programs. Submitted Perkins budget also allow school districts and colleges to provide professional development of staff which includes upgrading teachers' technological skills.

During onsite monitoring, OCCTE staff look for evidence of the teaching and learning for Strand 6 in order to determine compliance with the Perkins IV requirement of the "development, improvement, and expansion of technology." Two monitoring criteria are used in this aspect of the review: 1) are programs structured so that students acquire technological (computer, etc.) knowledge and skills; and 2) are the methods of measuring the acquisition by students of technological knowledge and skills appropriate. If a district is found to be out of compliance, the Department makes a finding and provides technical assistance to the district in the development of its corrective action plan and subsequent progress reports.

In 2015-2016, school districts with career and technical education programs have continued to utilize the Massachusetts Vocational Technical Competency Tracking System (VTCTS) that is designed to be used by teachers in career/vocational technical education programs for tracking students' progress in acquiring the knowledge and skills in the Massachusetts Vocational Technical Education Frameworks. The VTCT is no longer being supported by the Commonwealth and is being phased out by the end of calendar year 2016. Staff from the OCCTE convened a subcommittee of district representatives to develop a list of desired features and functionality and explore alternative competency tracking systems and to assist districts in transitioning to new systems of their choice.

The complementary system offered by the state at no charge to districts called EDWIN Analytics remains active. This system which allows powerful analysis of data and which will be linked to outcome measures such as attendance at colleges, employment and other post participation data, allows educational institutions to analyze how students are faring once they leave school. New reporting functionality specific to CVTE was developed in the 2014-2015 school year entitled CVTE Graduate Pathway Summary which details postsecondary enrollment, outcomes and continuation of vocational field of study for MA public school graduates who were CTE concentrators and enrolled in a MA public postsecondary institution. Training on the use of Edwin Analytics continues as new administrators and teachers come on board.

The newly revised Vocational Technical Frameworks standards have been added to the Massachusetts Work-Based Learning Plan, which is a diagnostic, goal setting and assessment tool designed to drive learning and productivity on the job. The addition of these standards will enhance the tools utility for tracking competencies of students in cooperative education and internship placements. Training sessions on the use of the tool were held throughout the state during the 2015-2016 school year, in addition to a session in June 2016 at the Connecting for Success professional development conference for vocational technical educators.

In addition, over the past year, the Office for Vocational Technical Education has merged with the Office for College and Career Readiness in order to form a new unit called the Office for College, Career, and Technical Education (OCCTE). This merger allows the Office to work as a singular entity merging Career and Technical Education, College and Career Readiness, and coordination with postsecondary education. This merger, which occurred in May of 2016, promises to provide access to more data sources, including an Early Warning Indicator System (EWIS) which assesses factors that contribute to students' high school and postsecondary success. The two units had been working side by side for years and have already collaborated on data acquisition and analysis.

Building on previous involvement with the Data in Action project and the use of the EDWIN Analytics system constructed in the previous year, the Commonwealth has moved toward a specialized report for the OCCTE. OCCTE staff have trained on how to access these reports and use them, and a presentation was provided on the new reports to the field at the Massachusetts Vocational Association conference in March of 2015, as previously reported. The purpose of these activities is to use this reporting to strengthen the access to data analysis for use as aids in improving student performance and outcomes. OCCTE has also spent a great deal of time over the past year examining its data and has formed a Performance Measurement Group. This group will work to examine data in terms of OCCTE metrics. The purpose of this group is to: 1) examine data from all OCCTE programs and initiatives to improve program performance and student outcomes; and 2) determine which data OCCTE was missing and determine methods to obtain data needed to assess student outcomes.

The OCCTE has two main metrics through which it gages success:

1. Increasing the number of students who graduate high school after completing a rigorous program of study and enroll in post-secondary education or training as evidenced by:
 - a. 4 and 5 year graduation rates (for all students and specifically for CTE concentrators)
 - b. MassCore completion rates (for all students and specifically for CTE concentrators)
 - c. Postsecondary enrollment (for all students and specifically for CTE concentrators)
 - d. Postsecondary persistence (for all students and specifically for CTE concentrators)
 - e. Postsecondary matriculation without the need for remediation (for all students and specifically for CTE concentrators)
2. Increasing access to high quality career development education and technical skills, as evidenced by:
 - a. Increasing opportunities to access and acquire Foundation/Employability skills
 - b. Increasing access to high quality career awareness opportunities, and
 - c. Increasing opportunities to acquire technical skills through:
 - i. Increasing student participation in CDE; and
 - ii. Increasing the number of CVTE seats in high-wage, high-demand industries.

The merger of College and Career Readiness unit and the Career Vocational Technical Education unit makes this possible through:

Creating strong partnerships with other ESE units, as well as key K-12, workforce development, and higher education organizations.

Blending a strong sense of accountability with coordinated professional development, technical assistance, and regulation/guideline development.

Providing tools and programming that target the most at-risk students.

There are also plans to share the two units' previously separate data resources within OCCTE to further its strategic goals.

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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?

The Office for College, Career, and Technical Education (OCCTE) assesses career and technical education programs funded under Perkins IV through formal analysis of program enrollment and outcome data as well as onsite monitoring of a select number of public school districts, public two-year colleges and correctional institutions.

Starting in February, districts, colleges and other recipients of Perkins funds must review performance for all Perkins Performance Indicators with their OCCTE program liaisons and submit or update improvement plans for main indicators and for those special populations that have not met 90% of the Perkins recipient's negotiated standard for the previous year. Perkins funding recipients must also provide annual reports on the status of previously submitted improvement plans. Liaisons review improvement plans for suitability for the populations identified and provide technical assistance to Perkins funding recipients who request assistance with these plans.

The Office for College, Career and Technical Education, in collaboration with the offices for Public School Monitoring, Office of Language Acquisition, and the Audit and Compliance office participates in monitoring of school districts that are recipients of Perkins funds. In 2015-2016, twelve (12) districts were monitored. (The monitoring schedule can be found at: <http://www.doe.mass.edu/pqa/review/cpr/6yrcycle.html>.)

The Audit and Compliance Unit conducted intensive financial and data audits at four districts, which were shared with the districts. Some of these Audit and Compliance reviews identified data findings and financial findings (such as incomplete follow-up documentation and supplanting local costs). The Department sent notices and arranged changes in data reporting standards and mandated reacquisition of misspent funds from any districts found to have supplanted local funds or engaged in any other misuse of funds.

The review instrument used by the OCCTE for the assessment of career and technical education programs, found in the Coordinated Program Review Procedures School District Information Package for Career/Vocational Technical Education found at: <http://www.doe.mass.edu/pqa/review/cpr/instrument/cvte.pdf> includes: Assessment of Students; Student Identification and Program Placement; Parent and Community Involvement; Curriculum and Instruction; Student Support Services; Faculty, Staff and Administration; School and Work-Based Facilities and Equipment; Program Evaluation, and Recordkeeping and Fund Use.

Through the Methods of Administration Program, with USED Office for Civil Rights, districts were monitored for civil rights compliance using the Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color, National Origin, Sex and Handicap in Vocational Education Programs - 34 CFR, Part 100, (Appendix B). In addition, staff from the OCCTE completed desk reviews of the required documentation submitted in preparation for the onsite reviews and provided quality technical assistance prior to, during, and after monitoring. In 2015-2016, the OCCTE Methods of Administration Program conducted civil rights monitoring at three school districts using the Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color, National Origin, Sex and Handicap in Vocational Education Programs - 34 CFR, Part 100, (Appendix B).

The monitoring of program performance of public two-year colleges and correctional institutions that are recipients of Perkins funds is conducted by staff from the OCCTE through annual desk reviews. No financial reviews of postsecondary institutions were conducted because a cycle of reviews had been completed in 2011-2012 by an independent financial auditor. Results of these reviews were forwarded to and reviewed by the OCCTE. A new cycle of audits, as well as a monitoring strategy that extends beyond Civil Rights MOA compliance, is in the planning stages. Correctional institutions were not monitored onsite in 2015-2016, but were monitored using a desk review instrument in 2016. Onsite reviews of both postsecondary and correctional institutions are being planned as part of a collaborative process with the newly formed unit, and for correctional institutions, with Adult and Community Learning Services.

Also, as allocation grants are being reviewed, the OCCTE district liaisons review budgets to assure that Perkins funds are being used to meet the needs of special populations, including insuring that funds are used to enable special populations to meet adjusted levels of performance and that programs are designed to enable special populations to prepare for further education and training and for high-skill, high-wage, or high-demand occupations. Budgets are scrutinized carefully to ensure that fund recipients that have improvement plans in place are utilizing Perkins funding to support the needs of special populations, or are using non-Perkins funds to satisfy the needs of these populations to meet performance levels, prepare for further education or training, or for high-demand, high-wage high-skill occupations.

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

School districts with career/vocational technical education programs continued to develop, improve, and expand the use of technology through implementation of the Massachusetts Vocational Technical Education Frameworks (VTEFs). The sixth standardized strand of each of the frameworks is entitled Technological Knowledge and Skills. This strand outlines specific learning objectives and competencies for computer applications; concepts underlying computer hardware and software; responsible use of technology including ethics and safety issues in using electronic media; and the use of technology for research, problem solving, and communication.

OCCTE staff conducted desk reviews of budgets Perkins IV allocation grantees to ensure that funds are used by eligible recipients to develop, improve, or expand the application of technology in career and technical education programs. Submitted Perkins budgets also allow school districts and colleges to provide professional development of staff which includes upgrading teachers' technological skills.

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Prior to 2015-2016, many districts participated in projects related to the improved competency tracking system for vocational technical students as part of Massachusetts' Race to the Top activities. Now that the project is over, districts did learn a great deal about competency tracking from this experience. An Advisory Committee consisting of technical teachers, administrators and technology directors from across the state met and were consulted regarding features and functionality in an improved system. Competency Tracking functionality was included in the EDWIN Teaching and Learning (T&L) System. The EDWIN Thinking and Learning vendor, ThinkGate (now no longer in business), provided training sessions to vocational and technical school districts and comprehensive high schools that have CTE programs throughout the state.

The complementary system offered by the state at no charge to districts called EDWIN Analytics remains active. This system which allows powerful analysis of data and which will be linked to outcome measures such as attendance at colleges, employment and other post participation data, allows educational institutions to analyze how students are faring once they leave school. New reporting functionality specific to CVTE was developed in the 2014-2015 school year entitled CVTE Graduate Pathway Summary which details postsecondary enrollment, outcomes and continuation of vocational field of study for Mass. public school graduates who were CTE concentrators and enrolled in a MA public postsecondary institution. Training on the use of Edwin Analytics continues as new administrators and teachers come on board.

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CVTE Frameworks Revisions

Over the past several years, the OCCTE has been immersed in an initiative to revise its frameworks for 44 programs that are state-approved Vocational programs under Massachusetts General Law Chapter 74. The vast majority of these programs are conducted at secondary schools that also receive Perkins funding. All of the revised strands ensure students are equipped with 21st century skills, through the delivery of rigorous, relevant, and technologically challenging curricula. Professional development and technical assistance to help schools implement the frameworks continues.

For each program, the new frameworks have embedded academics that provide English Language Arts and Mathematics related to the vocational subject matter, and many of the programs are showing an increased emphasis on using technology as an integral part of the program curriculum. The revised embedded academics contained within each vocational programs framework are directly aligned to the Department's current Academic Frameworks.

During the revision process, all of the vocational frameworks underwent a public comment period and were vetted by practitioners, the Massachusetts Division of Professional Licensure, Program Advisory Committees across the state, and business and industry professionals to ensure students are equipped with 21st century skills, through the delivery of rigorous, relevant, and technologically challenging curricula. For each program, the new frameworks have embedded academics that provide English Language Arts and Mathematics related to the vocational subject matter, and many of the programs are showing an increased emphasis on using technology as an integral part of the program curriculum. Consequently, the new frameworks are enhancing technological literacy and also math literacy which are often directly connected to technology.

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?

Specific college level courses are required for the Professional Vocational Technical Teacher license. The Massachusetts Vocational Technical Education Regulations require a total of 39 college degree credits comprised of 21 credits (seven three-credit professional education courses) and 18 credits in academic core subjects in English, mathematics and science. UMASS Boston, Fitchburg State University, and Westfield State College offer the following professional education courses:

Seminar for the Beginning Vocational Technical Education Teacher

Managing Student Behavior in a Healthy and Safe Environment

Teaching Methods for Vocational Technical Education – Instructional Strategies Addressing the Needs of Students with Disabilities in Vocational Technical Education

Teaching Methods for Vocational Technical Education – Educating and Assessing the Vocational Technical Education Learner

Developing and Implementing a Standards-Based Curriculum in Vocational Technical Education

Teaching Methods for Vocational Technical Education – Using Research-based Practices to Develop Effective Instructional Strategies

There are also academic requirements connected to teacher licensure and there has been initial discussion regarding the viability of substituting OSHA training or Sheltered English Immersion training for some of the currently required coursework.

In 2015-2016, the Massachusetts Vocational Technical Teacher Testing Program administered six rounds of written examinations and two performance examinations offered in forty-three of the forty-six technical areas. A total of 368 written exams and 249 performance examinations were administered. A total of 212 candidates qualified for MA Vocational Technical Teacher Licensure, slightly down from 218 candidates in FY 15. The number of candidates passing both examinations in FY2016 saw a slight decline due to the fact that there was a lower number of candidates that registered for performance exams. The FY2016 passing rate for candidates participating in the written exam was 68% and 85% for the performance exam (it was 66% and 84% respectively in FY 15).

With the completion of the CVTE statewide Framework Revision Project, the Vocational Technical Teacher Testing Program has developed and continues to implement the plan to revise all of the current vocational technical teacher tests for alignment to the revised vocational frameworks approved in 2014. The MA Vocational Technical Teacher Testing Program facilitated forty-eight test development workshops to ensure test revisions are aligned properly to the revised Vocational Technical Education Frameworks.

A working group of OCCTE and OEL staff, representatives of the Massachusetts Association of Vocational Administrators (MAVA) and representatives of the universities offering the required courses was established to review course objectives and delivery of instruction. The group also began work on the development of common syllabi for all three of the universities offering the required professional education courses. The work of this group will continue in 2016-2017.

Special Education Leadership Institutes

The Office for College, Career, and Technical Education (OCCTE) continued to collaborate with the Office for Special Education Planning & Policy (OSEPP) to offer a distinctive professional development opportunity for special education, academic and technical administrators known as the Special Education-Career/Vocational Technical Leadership Institute (Institute). During this program year, the Institute's fourth-year participants (known as Cohort 4) began April 2015 and concluded in April 2016. The OCCTE collaborates with the OSEPP to deliver customized professional development sessions for special education, academic and technical administrators. The goal of the Institute is to build school-wide systems of support to assist students with disabilities enrolled in career and technical education programs. For SY 2015-16, six Perkins local recipients participated in teams. Teams participated in five full day sessions throughout the fall and winter of SY 2015-16. Each team committed to including the superintendent (one session only), the special education director, academic coordinator and vocational technical coordinator. Teams participated in targeted professional development, determined by a pre-Institute needs assessment, including webinars, in-person and telephone technical assistance delivered by OCCTE, OSEPP and staff from WestEd Learning Innovations (the contractor).

Throughout the Institute each team used Perkins Core Indicator data to assess not only the district's Perkins-funded programs, but also disaggregated the data to assess levels of access to career and technical education and the performance of students with disabilities within their own district. Each team identified a district challenge, specifically in supporting students with disabilities in career and technical education, and created a project plan implemented during the academy. Upon completion of the Institute, a final summative evaluation of all participants was completed by WestEd, and a final report provided to OSEPP identified successes and challenges to inform planning for future Institutes.

Perkins IV Leadership Academies

The Department of Elementary and Secondary Education continues to utilize Perkins funds to support professional development academies administered in partnerships with school districts with career/vocational technical education programs and the statewide vocational technical education leadership organization (MA Association of Vocational Administrators). The academies are designed to provide high-quality, intensive, and focused professional development for aspiring leaders in career/vocational technical education. The intended outcome of these academies is initial Vocational Administrator licensure, in accordance with Massachusetts General Law Chapter 74, for academy participants, creating a leadership pipeline in career/vocational technical education.

The Perkins Leadership Academy One is designed to lead to vocational administrative licensure for Vocational Supervisor-Director, Vocational Principal/Assistant Principal, or Cooperative Education Coordinator. Perkins Leadership Academy Two is designed to lead to vocational administrative licensure for Vocational Principal/Assistant Principal, or Vocational Superintendent/Assistant Superintendent.

Connecting for Success Conference

In 2015-2016, the two-day statewide Connecting for Success conference co-sponsored by the Massachusetts Association of Vocational Administrators (MAVA) and the Massachusetts Vocational Association (MVA) highlighted best practices and innovative trends. For the fifth year, pre-conference sessions were offered for teachers to acquire credentials enabling them to offer certifications to students in EPA RRP Rule Lead Paint, Construction Supervisor, Hoisting, Principals of Lean Manufacturing, and ADOBE Certified Associate. Sessions were offered for teachers to receive certifications in CPR and First Aid, Google Apps Educator Level 1, OneNote and OneNote Class Notebook, and Youth Mental Health First Aid. Staff from the Department of Elementary and Secondary Education's OCCTE also collaborated with MAVA and MVA to plan workshops related to Perkins IV such as understanding Perkins grant requirements and reporting and preparation for Coordinated Program reviews. OCCTE staff also offered workshops on the Coordinated Program Review Process, Grants Preparation, the newly developed Program Quality Assessment Tool, and the Revisions to the Process for State Approval of New Chapter 74 (state authorized vocational) Programs, and Apprenticeship. OCCTE staff collaborated with other Department of Elementary and Secondary Education staff to offer workshops on Using Common Assessments to Inform Student Impact Ratings for the Educator Evaluation system, Overview of Laws and Compliance for ELLs, Overview of WIDA English Development Standards, Partnerships for Inclusive Practice, Using Labor Market Information in Career/Vocational Technical Education (CVTE), Updates from the Office of Educator Licensure, Career/Vocational Technical Education (CVTE) and the Massachusetts Work-Based Learning Tool. Occupational Licensure and Apprenticeship, and Support for Transgender students. The offerings provided by the OCCTE were among the most well attended and highly rated sessions of the conference. By request, many will be offered again at the 2017 conference. The DESE also commenced the development of standards for Professional Development. These will be incorporated into OCCTE Professional Development when finalized.

Instructional Leadership Network and Strand 4 (Employability Skills) through the District and School Assistance Centers (DSACs).

DSACs are a team developed to help struggling schools and districts across the Commonwealth. Massachusetts classifies its school districts into five categories. All Level schools are evaluated against certain measures (such as students MCAS' scores); schools that require little or no improvement are classed as Level 2 or Level 1 schools. A DSAC is called in to assist schools or districts that are performing marginally (Level 3) or poorly (Level 4 or Level 5-Level 5 schools or districts can be taken over by the state). CVTE has provided some funding to have the DSAC team provide professional development CTE schools or districts at levels 3-5. In addition, outcomes have been improved through the work of the Integrated Learning Network (Western Massachusetts DSAC). The ILN component has been in operation since fall of 2014. The eastern part of the DSAC professional development started in early 2015. Both offer structured, regularly scheduled meetings that facilitate exercises, share ideas, and provide resources for strengthening technical and academic skills. In 2015-2016 professional development covered a variety of topics including vocational and academic literacy integration, the use of data and MCU's (model curriculum units) for integration strategies, math and literacy in Early Education and Care programs, and integrating the Massachusetts Math, ELA and CVTE Frameworks. Activities continue to be met with very positive reactions by attendees who include both academic and technical teachers, administration, and counseling staff.

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?

Through the state's vocational technical education new program approval process, there were three (3) approvals for programs that are nontraditional for females and three (3) approvals for programs that are nontraditional for males. All approved programs will serve secondary— no programs serving adult students were approved this year, although one is currently engaged in the approval process and we expect to see more this coming year. The total number of new programs that prepare for non-traditional fields in current and emerging professions is six (6); in 2015 – 2016, there were fifteen (15) new program approvals.

In addition, the Massachusetts Department of Elementary and Secondary Education Office for Career/Vocational Technical Education retained the services of an Equity Consultant who provided professional development and technical assistance to school districts. The consultant continued to provide professional development and technical assistance to teachers, administrators, counselors, coop coordinators, nontraditional by gender group advisors, and other staff in career/vocational technical education, with the goal of increasing student participation in, and completion of, career/vocational technical education programs that prepare students for careers that are nontraditional for their gender. Additional information is described under Professional Development in "Assisting Districts and Colleges in Increasing Enrollment in and Retaining Student Nontraditional by Gender Occupational Training."

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?

The following are activities implemented in Massachusetts to ensure districts and colleges provide support for programs for special populations that lead to high-skill, high-wage, and high-demand occupations.

Districts and colleges in Massachusetts allocate Perkins funds for the professional development of academic and technical educators, as well as counselors to better support special populations in the career areas, with special attention given to ensuring access to information on high skill, high wage and high demand occupations. Both secondary and postsecondary Perkins Improvement Plans and Annual Reports are reviewed to ensure transition services and programs of study described for special populations are designed to facilitate the effective transition from secondary to postsecondary and high skill, high wage, and high demand occupations. In addition, OCCTE regularly responds to district and college inquiries regarding access to and support in programs for special populations. Additionally, OCCTE routinely communicates with a subsidiary group of the Massachusetts Association of Vocational Administrators called VASE-Vocational Administrators of Special Education to collaborate regarding specific needs.

The OCCTE is a collaborating member of the planning group that the Massachusetts Association of Vocational Administrators employs to present the Connecting for Success professional development conference. Each year, the conference includes a strand of professional development specifically designed to assist guidance counselors, as well as academic, technical, and special educators in appropriately designing activities and lesson plans that introduce all students to the pathways and occupational options that lead to high skill, high wage, and high demands jobs in their geographic and program area. In 2015-2016, OCCTE staff in collaboration with the President of the Massachusetts Building Trades council provided a workshop on apprenticeship and strengthening connections to vocational schools to access high wage, high skill careers in this high demand industry sector. The workshop had a particular emphasis on opportunities for women in the industry and initiatives to increase the number of women in the trades. In the session entitled Partnerships for Inclusive Practice, Participants heard from the principal of a Massachusetts Vocational Technical School about her experiences in supporting the needs of all students with the tools of the Educator Effectiveness Guidebook for Inclusive Practice. Created by Massachusetts educators, the Guidebook includes tools for districts, schools, and educators that are aligned to the MA Educator Evaluation Framework and promote evidence-based best practices for inclusion following the principles of Universal Design for Learning, Positive Behavior Interventions and Supports, and Social and Emotional Learning. The session included opportunities to interact with several tools from the Guidebook and to strategize about the application of inclusive practice to participants' school environments.

Also in 2015-2016, staff from the OCCTE served on the steering committee for the first Construction Career Day on Cape Cod, collaboration between the Home Builders and Remodelers Association and the Connecting Activities Network Home to introduce secondary school students to careers in the building trades. There was strong participation of female students and students of color in this event. It will be offered again in the fall of 2016. Another new initiative during this reporting year was the Girls in Trade event attended by over 300 young women from schools across the Commonwealth. This event featured a workshop for the students led by current trades-women who discussed the opportunities for careers in the trades and a trade show with representatives from apprenticeship programs of all of the building trades. There was also a workshop for teachers and career guidance staff on apprenticeship requirements and how to assist their students in accessing those programs.

As noted in previous sections, the Department monitors school districts every six years for compliance with applicable state and federal laws and regulations during Coordinated Program Reviews and civil rights reviews in accordance with the Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color, National Origin, Sex and Handicap in Vocational Education Programs. During both reviews, specific criteria allow us to monitor district/college efforts to ensure all students, including special populations, have access to the same information regarding careers that are high skill, high wage, and high demand, and are provided with the knowledge and skills necessary to obtain employment in high skill, high wage and high demand occupations. Review and results of the statewide compliance monitoring are primary sources of information in determining district/college professional development needs, additional supports and targeted technical assistance activities, which is made available to all eligible recipients annually.

For more than a decade, the Department's Office for Special Education Policy and Planning (OSEPP) has funded a special education staff position in the Office for College, Career, and Technical Education (OCCTE). The position ensures that relevant information, guidance and technical assistance specific to students with disabilities are available to eligible district/college recipients. The OCCTE staff member who holds this position also assists the OSEPP with data collection for the regional vocational technical high schools relative to the transition components of the Massachusetts Special Education State Performance Plan (MA SPP) Secondary Transition (Indicators 13 and 14) performance goals, and continues to participate in the review and response to complaints filed by parents/guardians, applicants, and others regarding career/vocational technical education and special populations.

Additionally, staff from OCCTE continue to participate in the Boston Special Education Transition (B-SET) Project's Workforce Development Task Force, which has held regular meetings and work sessions since May 2014. Convened by Massachusetts Advocates for Children and the Boston Foundation, the goal of the task force is to increase inclusive workforce and post-secondary education placements and opportunities for Boston youth and young adults with disabilities while enrolled in Boston public schools and after exiting.

The organizational membership of the task force includes over 60 organizations and more than 100 individuals, with representatives from business, labor, state and city agencies, schools, higher education, funders, parent and advocacy organizations, and disability, youth and workforce development agencies. The groups' final work included recommendations and an Action Plan, which contains a "dashboard" of the following goal areas:

- Continue to improve transition services and supports in the Boston Public Schools and charter schools for students with disabilities.
- Strengthen family and community supports for transition-age youth with disabilities.
- Ensure that students with disabilities in public and private colleges and other post-secondary pathways have access to accommodations and to career services.
- Increase capacity and improve service coordination among state adult service, workforce development, transitional assistance and youth service agencies.
- Re-connect "Opportunity Youth" to school and career pathways by supporting youth-serving agencies to better meet the needs of older youth who have hidden or undiagnosed disabilities.
- Increase capacity of employers in the private, non-profit and public sectors to hire and retain youth/young adults with disabilities.
- Strengthen the infrastructure to raise awareness and resources, improve system navigation, and promote collaboration to support the transition to employment and career for Boston youth with disabilities.

This collaboration identified multiple opportunities and strategies to better support programs that lead to high skill, high wage and high demand occupations for all students with disabilities in Boston.

Disaggregated data was used to identify any disparities or gaps in performance between special populations and the performance of all students served and what steps were taken to address any disparities or gaps

The Student Information Management System (SIMS) is the state system for collecting data, which in turn is used to create Perkins Core Indicator Reports for each district, disaggregated by sixteen populations. The data is available to the districts and used in the development of the Perkins Improvement Plans which are specific to each population and core indicator. Staff in the OCCTE reviews the data each year in concert with the review of the Perkins Improvement Plans.

Program assessments of the needs of special populations

Program assessment of the needs of special populations is addressed in several ways, including the review of Perkins Core Indicators disaggregated by special populations, enhanced compliance monitoring, grant monitoring and ongoing technical assistance. To ensure all students have equal access to all components of career/vocational technical education (cooperative education, student organizations, etc.), including all special populations, the Office for College, Career, and Technical Education re-established the OCCTE Equity Team.

The re-establishment of an Equity Team presents an opportunity for OCCTE to expand the focus of access and equity and participate in technical assistance and professional development currently provided by the CCTE contractor and will complement the Commonwealth's focus on identifying ways to expand access to high quality career/vocational technical education. Following are the draft vision, goals and objective of the Equity Team:

Vision:

To raise awareness within the education and greater community to ensure equitable access to OCCTE for secondary and postsecondary students in Massachusetts, particularly for special populations.

Goals:

Coordinate and promote the pursuit of equitable access for special populations to OCCTE across districts, 2-year state colleges, and individual secondary/postsecondary OCCTE programs.

Collaborate with other DESE offices, business/industry (PACs/GACs), students, parents/guardians, community colleges and other stakeholders in ensuring equitable access for special populations to OCCTE in Massachusetts.

Objectives:

Identify methods and implement an assessment process to determine current levels of equitable access to all components of career/vocational technical education for special populations, currently participating in OCCTE in Massachusetts.

Identify a method to and implement an assessment process to determine levels of access to information, schools, activities and programs regarding OCCTE for special populations, NOT currently participating in OCCTE in Massachusetts.

Review most recent OCCTE Perkins and Chapter-74 achievement gap data for special populations, and determine priority focus areas based on that data.

Identify and provide resources, professional development, and technical assistance to districts specifically in ensuring equitable access to OCCTE for special populations.

Identify a method to determine high-quality programs, initiatives, activities (promising practices) currently being implemented specifically to address equal access to OCCTE career/vocational technical education for special populations.

Develop methods to expand active communication with key stakeholders, both internally and externally, regarding meeting the needs of special populations.

Blend/braid all efforts with overarching DESE initiatives (e.g. ensuring high quality in our state's teaching force for the neediest populations, targeted assistance, etc).

In addition, as part of the Department's monitoring system, OCCTE reviews each eligible recipient receiving Perkins funds for the following:

Students are reported accurately as Perkins participants under the Commonwealth's Student Information Management System (SIMS) or, at the postsecondary level, reported appropriately as Perkins students, as provided in a Memorandum of Agreement between the colleges and the Massachusetts Department of Elementary and Secondary Education

Schools maintain records of one year student follow-up that verify the information districts have been reporting

Schools use Perkins funds appropriately as specified in annual Perkins grants

Schools use Perkins funds to supplement, not supplant, local resources

Career guidance and placement services are provided in order to assist each student enrolled in a career/vocational technical education program in making the transition to the workforce, postsecondary education, and/or apprenticeship programs.

MCAS and/or other academic assessment results are used to design instructional and support services. All individuals including those who are members of special populations are provided with equal access to career/vocational technical education programs, services and activities, including that programs are readily accessible to persons with disabilities.

Representatives of business/industry; organized labor (union); colleges(s); parent(s)/guardian(s); student(s); representative(s) from registered apprenticeship program(s) are involved in the development, implementation, and review of career/vocational technical programs, and that representation is race, linguistic, disability, and nontraditional by gender inclusive, and if not, there is a formal recruitment process to make it inclusive.

Activities are provided to prepare students, including students that are members of special populations, for high skill, high wage, or high demand occupations that will lead to self-sufficiency.

Professional development activities, technical assistance or training to provide education professionals with the knowledge, skills and occupational information needed to assist special student populations.

The Massachusetts Department of Elementary and Secondary Education OCCTE retained the services of an Equity Consultant who provided professional development and technical assistance in this area. This consultant provided in-person professional development and follow-up technical assistance through phone, virtual, and onsite visits to districts and colleges to help them develop outreach and retention strategies to support students in occupations that are nontraditional by gender. On average, this individual conducted 8-12 professional development or technical assistance sessions with school districts per month.

The Equity Consultant provided professional development and technical assistance to school personnel and student leaders in career/vocational technical education programs, with the goal of increasing student participation in, and completion of, career/vocational technical education programs that prepare students for careers that are nontraditional for their gender.

In order to solicit best practices, barriers, and resources to inform the trainings and technical assistance, the consultant also conducted a survey of over 150 students in shops nontraditional for their gender at the Annual C/VTE Student Leadership Summit and at the Massachusetts Girls in Trades Conference and Career Fair.

Technical assistance was provided by email, telephone, and in-person. Statewide technical assistance and training included workshops at the Massachusetts Vocational Association (MVA), the Annual Massachusetts Association of Vocational Administrators (MAVA) Connecting for Success Conference, and at the MAVA Leadership Academy for current and prospective C/VTE administrators. These workshops addressed gender equity, gender identity and expression, and school climate. The Equity Consultant also participated in the State SkillsUSA competition and served as a juror for the Nontraditional by Gender Portfolio submissions. In addition, the contractor planned and coordinated regional networking meetings for school personnel who are leading efforts in their schools to prepare students for careers that are nontraditional for their gender, and conducted an annual day-long student leadership summit. Student leaders and advisors discussed strategies for creating access for all students, and the role and impact of school personnel and student leaders in supporting students pursuing careers that are nontraditional for their gender.

In 2015-2016, staff from the Massachusetts Department of Elementary and Secondary Education's OCCTE supported the development of new career/vocational technical education programs through the state's program approval process. In 2015 -2016, fifteen (15) new secondary Chapter 74 programs were approved: Engineering Technology, Business Technology, Culinary Arts, Design & Visual Communications (4), Biotechnology, Environmental Technology (2), Medical Assisting, Machine Tool Technology, Programming and Web Development, and Criminal Justice/Legal & Protective Services. As of October 1, 2016, these new programs showed enrollments of 332 secondary students.

District liaisons reviewed required documentation and conducted onsite reviews with local technical experts to ensure that proposed new programs met the approval criteria of the Massachusetts Vocational Technical Education. The required documentation includes, but is not limited to:

Labor market demand/student demand for the program

The program has been planned in consultation with its advisory committee based on adequate and timely information as to workforce and job development demands or job market trends.

A plan for the review of curriculum and instruction to ensure that it is free of bias and stereotyping based on race, color, sex, religion, national origin, disability or sexual orientation.

The district uses its Department-approved admission policy and an appropriate application for admission.

The program provides career planning and adheres to Massachusetts Frameworks for CVTE programs.

In addition to the above practices, the Commonwealth has provided new activities to increase program access to special populations

A CVTE team developed a Quality Assessment Tool (QAT) to assist school districts in self-assessing the quality of its CTE programs. The tool assesses practices in eight broad categories, including "Equitable Access & Support."

OCCTE issued \$107,200 in CTE Partnership Planning Grant funds to nine school districts and three community colleges to support regional and local partnerships to expand existing and/or develop new CTE programs and initiatives that increase student access to CTE opportunities, primarily through more effective use and integration of existing capacity and resources. Priorities for funding included serving traditionally underserved populations, defined as out-of-school youth/young adults without high school diplomas or the equivalent; linguistic and/or racial minority students; students with disabilities; English language learners; economically disadvantaged students; students pursuing career paths that are nontraditional for their gender; students in rural or otherwise isolated communities.

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

In 2015-2016, staff from the Massachusetts Department of Elementary and Secondary Education's OCCTE continued to provide technical assistance to eligible recipients primarily through onsite visits, phone conferencing, and online support. Staff also provided assistance through participation at various professional conferences and seminars.

Technical assistance was provided to high schools and community colleges on: Starting new Career Vocational Technical Education programs, Cooperative Education Programs, Admissions, and access to OCCTE Technical Assistance with Voluntary Compliance Plans (VCP) required for Letters of Findings (LOF) for civil rights reviews Advisory committee and partnerships with business and industry.

Long term technical assistance continues to occur with a city vocational technical high school piloting a new career and technical education program in Aviation Maintenance Technology. Staff from OCCTE continue to work with the district, and all affiliated partners, with the goal of establishing a new statewide Chapter 74 vocational technical education program in Massachusetts. This also includes the creation of a statewide vocational technical framework, vocational teacher licensure, and written and performance teacher tests

As in prior years, in 2015-2016, each career/vocational technical education program at the secondary and postsecondary level supported partnerships through program advisory committees comprised of representatives from business and industry as well as postsecondary education. The committees meet at least twice a year to advise and assist in the improvement, planning, operation, and evaluation of their programs. In addition, each postsecondary institution that receives Perkins funding must spend 20% of its funding on high school to college linkage activities.

Technical assistance provided to school districts and community colleges during 2015-16 included:

Helping Perkins recipients understand their core indicator data and develop and/or revise their intervention strategies to address indicator under performance.

Helping new Perkins recipients and new program directors/coordinators become acquainted with the intricacies of Perkins requirements.

Assisting districts in their applications for C74 state approval.

Helping school districts better serve their special populations.

Program improvement planning, application for Program Grants and data reporting for Perkins IV

Professional development and technical assistance to make programs more welcoming to students who are nontraditional by gender for the field in question was also provided throughout the year. The Equity Consultant conducted 20 professional development sessions and provided more than 30 days of technical assistance to school districts. This included regional networking meetings for school personnel and student leaders who are spearheading efforts in their schools to prepare students for careers that are nontraditional for their gender. Student leaders and advisors discussed strategies for creating access for all students, and the role and impact of school personnel and student leaders in supporting students pursuing careers that are nontraditional for their gender.

Instructional Leadership Network and Strand 4 (Employability Skills) through the District and School Assistance Centers (DSACs).

OCCTE supported two staff positions in the Massachusetts Department of Elementary and Secondary Education District and School Assistance Centers (DSAC's). DSACs are a team developed to help struggling schools and districts across the Commonwealth. Massachusetts classifies its school districts into five categories. All Level schools are evaluated against certain measures (such as students MCAS' scores); schools that require little or no improvement are classed as Level 2 or Level 1 schools. A DSAC is called in to assist schools or districts that are performing marginally (Level 3) or poorly (Level 4 or Level 5-Level 5 schools or districts can be taken over by the state). CVTE has provided some funding to have the DSAC team provide professional development CTE schools or districts at levels 3-5. In addition, outcomes have been improved through the work of the Integrated Learning Network (Western Massachusetts DSAC). The ILN component has been in operation since fall of 2014. The eastern part of the DSAC professional development started in early 2015. Both offer structured, regularly scheduled meetings that facilitate exercises, share ideas, and provide resources for strengthening technical and academic skills. In 2015-2016 professional development covered a variety of topics including vocational and academic literacy integration, the use of data and MCU's (model curriculum units) for integration strategies, math and literacy in Early Education and Care programs, and integrating the Massachusetts Math, ELA and Career/Vocational Technical Education Frameworks. Activities continue to be met with very positive reactions by attendees who include both academic and technical teachers, administrators, and counseling staff.

7. Serving individuals in state institutions

Part I: State Correctional Institutions

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

154053

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

250

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

In 2015-2016, the OCCTE continued to collaborate with the Massachusetts Department of Correction, Massachusetts Department of Youth Services, and County Sheriffs' Offices to improve career/vocational technical education programming in correctional institutions. Programs that were offered to student-inmates in state institutions included: graphic design, culinary arts, computer operation, website development, construction-related fields, custodial technician, small engine repair, horticulture, HVAC, welding, auto tech, and green technologies.

In 2015-2016, seven (7) institutions received funding for twelve (12) programs that served inmates in adult and youth facilities and male and female facilities. Some correctional institutions contracted with regional vocational technical schools and colleges to provide instruction. All student-inmates were also involved in reintegration programs at their individual facilities. Career assessments, career development and employability skills were included in several programs with some inmates receiving assistance with general career and educational planning, and some received assistance with remedial education and high school equivalency from funding sources other than Perkins. Desk reviews were conducted of all grantees.

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.

N/A

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

No

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?

Yes

Perkins funds were used for the following innovative initiative:

OCCTE issued \$107,200 in CTE Partnership Planning Grant funds to nine school districts and three community colleges to support regional and local partnerships to expand existing and/or develop new CTE programs and initiatives that increase student access to CTE opportunities, primarily through more effective use and integration of existing capacity and resources. Priorities for funding included serving traditionally underserved populations, defined as out-of-school youth/young adults without high school diplomas or the equivalent; linguistic and/or racial minority students; students with disabilities; English language learners; economically disadvantaged students; students pursuing career paths that are nontraditional for their gender; students in rural or otherwise isolated communities.

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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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?

The Department of Elementary and Secondary Education restructured the agency this year. This resulted in the merger of the Office for College and Career Readiness with the Office for Career, Vocational Technical Education. The newly formed Office for College, Career, and Technical Education (OCCTE) supports statewide and national initiatives to enhance 21st Century Skills for all students and ensure all students are college and career ready. A statewide goal of the Governor of Massachusetts is to increase access to college, career and technical education programs for all students. This new structure supports that goal. The consolidation also allows for more staff interactions to share resources and best practices amongst the group and with the field. The OCCTE has identified priority projects which link components of Perkins Career and Technical Education with national career readiness goals. Some of projects include expanding access, regulatory licensure work, graduation and postsecondary access and a system for statewide college, career and technical education professional development and technical assistance.

The Massachusetts Board of Education has a state-legislated Advisory Council for Vocational Technical Education comprised of representatives from higher education, business, industry, labor, parents and students. This Council advises the Massachusetts Commissioner of Elementary and Secondary Education and the Massachusetts Board of Elementary and Secondary Education for the purpose of enhancing efforts to improve career/vocational technical education and advance student achievement. Members of the council participated in the task force established to create the first State-wide articulation agreements between Vocational-Technical High Schools and Massachusetts Community Colleges and will continue that effort in the coming year, identifying more programs for state-wide agreements. Members of the council also continue to seek articulation agreements with registered apprenticeship programs.

Partnerships with Massachusetts' 16 Workforce Development Boards and the Massachusetts Department of Elementary and Secondary Education's Connecting Activities initiative provided students with exposure to high skill, high wage occupations through structured internship opportunities in their career/vocational technical education programs. In a number of schools with career/vocational technical education programs, the Massachusetts Work-Based Learning Plan was used to complement the Massachusetts Vocational Technical Education Frameworks in order to structure student learning and productivity in these internships.

The OCCTE continues to monitor for compliance through the Coordinated Program Review process. In 2015-2016, the criterion that guided such monitoring was: "Are programs structured so that students acquire academic (including embedded academic) knowledge and skills?" In 2015-2016, OCCTE staff also continued to review the proposed budgets of each Perkins IV eligible recipient for evidence that districts utilize Perkins funds, as required, to support such integration.

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.

In 2015-2016, the Massachusetts Department of Elementary and Secondary Education continued to work collaboratively with numerous partners including the Massachusetts Department of Higher Education, Massachusetts Community Colleges Executive Office, Massachusetts Executive Office of Labor and Workforce Development, Massachusetts STEM Council, Massachusetts Division of Apprentice Standards, Massachusetts Association of Vocational Administrators, Massachusetts Vocational Association, Massachusetts Association of School Counselors, Massachusetts Division of Professional Licensure, Massachusetts Division of Occupational Safety, Massachusetts Department of Public Health, Massachusetts Department of Transportation, Massachusetts Department of Early Education and Care, Massachusetts Area Health Education Center (AHEC) Network at the University of Massachusetts Medical School, Plumbing, Heating, Cooling Contractors of Massachusetts, Manufacturing Advancement Center Workforce Innovation Collaborative, Retailers Association of Massachusetts, Massachusetts School Building Authority, Massachusetts Department of Correction, Massachusetts Department of Youth Services, and the Massachusetts Board of Education Advisory Council for Vocational Technical Education, other business and labor partners at the local, state, regional levels. It also collaborated with the former Office of College and Career Readiness (CCR) (before CVTE and CCR were fully integrated) with the non-profit organization Jobs for the Future.

In addition, partnerships with Massachusetts' 16 Workforce Development Boards (WDBs) and the Massachusetts Department of Elementary and Secondary Education's Connecting Activities initiative provided students with exposure to high skill, high wage occupations through career awareness and exploration activities, such as career days and job fairs, as well as structured internship opportunities in their career/vocational technical education programs. In a number of schools with career/vocational technical education programs, the Massachusetts Work-Based Learning Plan (MA WBLP), which is a diagnostic, goal-setting and assessment tool that measures student skill gain, was used to complement the Massachusetts Vocational Technical Education Frameworks in order to structure student learning and productivity in these internships. In FY2016, that tool was modified so that technical competency in the relevant CTE fields, based upon the articulated skills identified for all 44 CTE programs, could be assessed, along with foundational employability skills. Professional development was offered to CTE teachers so that they could use this new capacity in the MA WBLP. The Connecting Activities initiative, which is managed in the field by the WDBs, was the vehicle for the training that was offered.

The Office for College, Career, and Technical Education (OCCTE) continues to monitor for compliance through the Coordinated Program Review process. In 2015-2016, the criterion that guided such monitoring was: "Are programs structured so that students acquire academic (including embedded academic) knowledge and skills?" In 2015-2016, OCCTE staff also continued to review the proposed budgets of each Perkins IV eligible recipient for evidence that districts utilize Perkins funds, as required, to support such integration.

At the state level, collaboration among the Massachusetts Department of Elementary and Secondary Education, the Commonwealth Corporation, the Office of the Attorney General, MA Department of Industrial Accidents, MA Division of Occupational Safety, MA Department of Public Health and the U.S. Department of Labor resulted in an annual professional development strategy on the state and local levels that focused on promoting health and safety for young workers by connecting participants with promising practices that support safe and healthy workplaces. The Massachusetts Youth Employment Safety Team (YES) is an interagency network that brings together state and federal agencies to coordinate efforts to protect and promote the health and safety of young workers. Staff from the Massachusetts Department of Elementary and Secondary Education's OCCTE participate on the YES team.

OCCTE staff also collaborated with the Massachusetts Division of Professional Licensure by participating on the Board of State Examiners of Electricians representing the interests of vocational technical students throughout the state. (Graduates of approved vocational technical programs receive credit applied to the work and theory hour as required for licensure.) Additionally, OCCTE staff continue to work with the new Board of Examiners of Sheet Metal Workers regarding credit toward licensure for students that complete high school programs in Sheet Metalworking, Metal Fabrication, and Heating, Ventilation and Air Conditioning. Graduates of these approved programs are eligible for a year's credit toward both the work and related theory hours requirements for the Sheet Metal license.

In the spring of 2016, the Council of Chief State School Officers (CCSSO), in partnership with the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), awarded 6 month planning grants of \$100,000 to each of 25 state education agencies, including the MA Department of Elementary and Secondary Education (ESE). CCSSO's initiative, called New Skills for Youth (NSFY), has two overarching goals:

1. To dramatically increase the number of students in the U.S. who successfully complete career pathways that begin in secondary school and culminate in postsecondary degrees and/or industry credentials with labor market value; and

2. To catalyze transformational approaches to the design and implementation of programs and policies to increase students' career-readiness in a cohort of leading states and disseminate lessons learned to the rest of the country.

The New Skills for Youth initiative was a partnership opportunity which helped the Commonwealth develop a strategy to integrate Perkins into a larger effort to coordinate and rationalize all workforce development activities. Staff from OCCTE and the Department of Elementary and Secondary Education Special Education Policy and Planning were also invited to provide input for the Massachusetts Workforce Investment Opportunity Act Massachusetts State Plan.

Through the NSFY initiative, MA has developed a Three Year Career Readiness Action Plan for 2017-19, to scale up career development education and career pathways, to support our goal of college and career readiness for all. As part of its needs assessment, ESE took close stock of all of its CVTE programs, confirming the number and percent of high school students in MA currently participating (about 60,000, which is about 20% of all high school students) and established goals for scaling up CTE programs in the state, and the number of students able to participate.

CCSSO presented a description of high quality career pathways, based on six core components, namely:

1. span secondary and postsecondary levels
2. offer focused career guidance and advisement systems
3. blend rigorous core academics and career-technical instruction
4. include high-quality work-based learning experiences
5. culminate in postsecondary or industry credentials with labor market value
6. are justified by labor market demand

The Massachusetts Department of Elementary and Secondary Education will be formally adopting these six components for its own definition of a high quality career pathway in FY2017, and will disseminate this definition for adoption across the state.

At the state level, collaboration among the Massachusetts Department of Elementary and Secondary Education, the Commonwealth Corporation, the Office of the Attorney General, MA Department of Industrial Accidents, MA Division of Occupational Safety, MA Department of Public Health and the U.S. Department of Labor resulted in an annual professional development strategy on the state and local levels that focused on promoting health and safety for young workers by connecting participants with promising practices that support safe and healthy workplaces. The Massachusetts Youth Employment Safety Team (YES) is an interagency network that brings together state and federal agencies to coordinate efforts to protect and promote the health and safety of young workers. Staff from the Massachusetts Department of Elementary and Secondary Education's OCCTE participated on the YES team.

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

Yes

Perkins funds are used yearly by individual schools to support acquisition of career software, such as Career Cruising and Naviance, which can help students map out career pathways both by themselves and with the aid of a counselor. In addition, the Office for College and Career Readiness—now merged with OCVTE as OCCTE--has had two career planning tools that it shares with schools running Perkins programs to promote to districts as viable career planning tools—Your Plan for the Future and Individual Learning Plans.

The OCCTE increased its efforts to expand the use of Individual Learning Plans (ILPs) as a template for the required Career Plan in Chapter 74 regulations. The ILP has the potential to fulfill and expand upon the requirements of the Career Plan.

Some best practices for ILP development include:

Having a mentor for every student to guide ILP development while ensuring every student has a caring adult in the building which may be one adult for a small group of students, increasing peer support as well.

Implementing the ILP in a structured environment such as career planning time, homeroom or advisory.

Using an online tool to capture the academic achievements, personal/social/emotional skill attainment, and career development activities.

The online tool not only captures the planning for success after high school but the tool is also a powerful search engine allowing students to go deep in learning about and preparing for a specific career. Online tools such as Naviance, Career Cruising and Your Plan for the Future have the capability to not only allow students to search for careers of interest based on the results of an interest survey but also to find labor market information including current earnings potential, availability of positions in a given field, and any needed post-secondary education or training. In addition, the online tools provide for the development of a resume and practice in completing job applications. Hence, this is not a “once and done” tool; student must be given time throughout the year to develop his/her plan.

OCCTE has encouraged schools to attend workshops and presentations on ILP development and on implementation of this more robust Career Plan.

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?

No

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 Perkins grants continue to contain a 20% set a side of funds to ensure community colleges create linkage programs and activities with nearby secondary high schools, which included dual enrollment activities that provide students with credit. Linkage initiatives also included the development, modifications, and approval of local articulation agreements.

Linkage activities continue to include marketing and promotion of articulated credit for career and technical course work with the promotion of dual enrollment in academic courses. Students enrolled in career/vocational technical education were made aware of dual enrollment opportunities and advantages during early Accuplacer testing, during campus tours, and during technical program presentations. School-wide and classroom presentations on dual enrollment were also conducted. Massachusetts students enrolled in career and technical education programs received dual enrollment credit through the Commonwealth’s Statewide Articulation Program. However, the exact enrollment and outcome data is not yet available. Some Community Colleges waived the Accuplacer for those students who qualified and as a condition of dual enrollment. Students enrolled in career and technical education programs also received credit through innovative OCCTE linkage efforts such as after school and summer early college courses.

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

Yes

In 2015-2016, Perkins IV Leadership funds again supported the following career/vocational technical education student organizations: Business Professionals of America (BPA), Distributive Education Clubs of America (DECA), Health Occupations Students of America (HOSA), Massachusetts FFA, and SkillsUSA. According to the RFP that all CTSO's are asked to respond to, several activities were designed and carried out by each student organization to increase the participation of students who are members of special populations and enhance instruction in employability, leadership, and communication skills. A summary of their activities can be found through links to each organization available at <http://www.doe.mass.edu/cte/studentorgs.html>. In recognition of the importance of career and technical student organizations to the development of leadership skills that enhance students' abilities to establish successful careers, the Office of Career/Vocational Education reached out to all career and technical student organizations seeking a student representative to serve on the state-wide Vocational Technical Education Advisory Committee to the Board of Elementary and Secondary Education. The council will continue to have a membership slot reserved for a student representative. In 2015-2016, that representative was an officer of the Distributive Education Clubs of America (DECA).

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

In 2015-2016, the teaching and learning of all aspects of an industry in Massachusetts' career/vocational technical education programs was again supported by professional development and monitoring for implementation of all strands in the Massachusetts Vocational Technical Education Frameworks. Each of the forty-four (44) Massachusetts Vocational Technical Education Frameworks includes six strands representative of the following aspects of all industries (which were addressed in previous sections): 1. occupational safety & health, 2. technical, 3. embedded academic, 4. Management and entrepreneurship, 5. employability, and 6. technological knowledge and skills. The Frameworks can be found at <http://www.doe.mass.edu/cte/frameworks>.

The Frameworks Revision process second phase included the revision of strands 1, 4, and 5 and was completed spring 2014. During Phase Three, statewide training on the newly revised frameworks was administered to the field. This edition of the frameworks includes the addition of several appendices including information on industry recognized credentials, resources, professional organizations and relevant websites. These appendices will be useful for all teachers, particularly beginning teachers, to have resources to expand understanding of all aspects of the industry.

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

The Associate Commissioner for Career, College and Technical Education provides oversight and alignment of Career Vocational Technical Education and College and Career Readiness at the Department. In addition, the Center provides outreach and coordination with external partners and initiatives to promote the implementation and integration of vocational, workforce, and career readiness programs through (1) communication with vocational and technical school administrators, teachers and schools; (2) cultivating relationships across education, labor and workforce development, private sector, housing and economic development and (3) building strategic partnerships throughout the community college and higher education system.

As in prior years, in 2015-2016, each career/vocational technical education program at the secondary and postsecondary level supported partnerships through program advisory committees comprised of representatives from business and industry as well as postsecondary education. The committees meet at least twice a year to advise and assist in the improvement, planning, operation, and evaluation of their programs. In addition, each postsecondary institution that receives Perkins funding must spend 20% of its funding on high school to college linkage activities.

In 2015-2016, 3,183 secondary students from 26 vocational technical high schools, 1 independent vocational and agricultural school, 2 agricultural schools, one collaborative, 9* academic regional schools, and 31 comprehensive high schools with career/vocational technical education programs (up from 1,359 in 2008-09, a 134% increase) gained valuable workplace experience through participation in the cooperative education component of their career/vocational technical education programs. Of this total, 1133 (35.6%) were female, down slightly from 37.6% in 2008-09. Members of ethnic/racial minorities totaled 655 (20.6%; up from 17% in 2008-09). Economically disadvantaged* students in cooperative education totaled 655* (20.5%) up from 16.7% in 2014-2015). Students with disabilities totaled 426 (13.3%; down from 15.2% in 2008-09).

*Note: In 2015, the measurement changed from Low Income to Economically Disadvantaged. The way the data is calculated (see http://www.doe.mass.edu/info_services/data/ChangingMetric.pdf), numbers for Economically Disadvantaged are considerably lower than low income and they should not be compared.

In addition, an OCCTE staff member has served as the liaison to a statewide Cooperative Education working group for many years. This group meets regularly to discuss cooperative education policy, experiences and strategize how to address challenges in running this activity.

OCCTE staff members have been actively promoting (but this year, not creating) articulation agreements between secondary and postsecondary schools and have also, following up on work initiated by the former Office for College and Career Readiness, been working to encourage early college design initiatives that facilitate students acquiring college credit prior to students leaving high school.

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

In 2015-2016, staff from the Massachusetts Department of Elementary and Secondary Education's OCCTE supported the development of new Career/vocational technical education programs through the state's program approval process. District liaisons reviewed required documentation and conducted onsite reviews with local technical experts to ensure that proposed new programs met the approval criteria of the Massachusetts Vocational Technical Education Regulations. In 2015-2016, 15 new programs were approved in twelve (12) districts. A total of 332 students were reported as enrolled in these 15 programs in October 2016.

A listing of the districts and programs follow:

Boston English High School-Business Technology-38

Boston English High School-Design and Visual Communication-48

Boston English High School-Health Assisting-37

Boston English High School-Programming and Web Development-28

Chicopee School District (Chicopee Comprehensive)-Design and Visual Communications-57

Fall River School Department (Durfee High School)-Environmental Science and Technology-3 (new program)

Greater Lawrence Regional Vocational Technical School District-Engineering-0 (new program)

Greater Lowell Regional Vocational Technical School District-Design and Visual Communication-39

Lynn School District-Machine Tool Technology-30

Medford School District-Environmental Science and Technology-0 (new program)

Nashoba Valley Vocational Technical School District-Biotechnology – 2 (new program)

Peabody School District-Medical Assisting - 37

South Middlesex (Keefe Tech) Regional School District-Legal and Protective Services -0 (new program)

South Shore Regional Technical School District-Design and Visual Communications- 0 (new program)

Waltham School District-Culinary Arts -13

A total of fifteen new Chapter 74 programs were approved this year and 332 students started classes in these programs. Some programs showed low enrollments because of the timing of approval and new status of the programs.

Districts can use Perkins funds, according to the Massachusetts state plan, to support teachers in these programs for up to three years. Perkins funds, if they do not supplant local funding, can also be used to provide improvements to Chapter 74 programs.

DESE is currently exploring adding additional programs to expand and streamline the process to add to the palette of state-approved Chapter 74 programs, such as currently working on proposed initiatives to develop Aviation Maintenance Technology and maritime occupations, and is also working to streamline the licensure approval process of teachers for newly developed programs.

In the past, the Chapter 74 application process often took several months—sometimes up to two years—due in large part to the submission of incomplete applications. This summer and fall, the OCCTE Chapter 74 team has been working to ensure that the backlog of Chapter 74 applications currently on file is eliminated by the end of the calendar year and that a new process is in place to more efficiently approve applications in calendar year 2017. Of the 33 applications in the backlog this summer, 13 have been approved, 12 have been withdrawn and 8 remain to be processed. The remaining 8 applications will be decided upon by end of the calendar year.

The team is also developing a new application and process for use starting in January 2017. The process will involve a district submitting a letter indicating their intent to apply, followed by the submission of a pre-application, and a period of intensive support by OCCTE staff to help the district prepare a full application. The team is also designing a system to help resolve issues around potentially duplicative programs as part of the process. The Department has discussed the revised process with the Massachusetts Association of Vocational Administrators, who reacted favorably to the concept of a pre-application. Because the process will be new for districts and will require intensive support from OCCTE staff between January and March, the first year of implementation may be particularly challenging. However, the team is enthusiastic about making the changes necessary to streamline the Chapter 74 application process.

In addition, OCCTE issued \$107,200 in CTE Partnership Planning Grant funds to nine school districts and three community colleges to support regional and local partnerships to expand existing and/or develop new CTE programs and initiatives that increase student access to CTE opportunities, primarily through more effective use and integration of existing capacity and resources. Priorities for funding included serving traditionally underserved populations, defined as out-of-school youth/young adults without high school diplomas or the equivalent; linguistic and/or racial minority students; students with disabilities; English language learners; economically disadvantaged students; students pursuing career paths that are nontraditional for their gender; students in rural or otherwise isolated communities

The Office for Career/Vocational Technical Education (now OCCTE) several years ago was involved with a STEM collaborative in which it helped secure a grant from the Massachusetts STEM Council to fund training. The training required a three to one match of private to state funding, and the grant was to train 18-24 year olds in Advanced Manufacturing Trades in Western Massachusetts—a region which is experiencing a labor deficit—and served as a model for collaboration between four vocational schools, the local Workforce Investment Boards, and the private sector. Also, although it is not a major initiative in OCCTE, several recipients of Perkins funds—secondary and postsecondary—are sponsoring distance learning programs and career pathways initiatives with part of their Perkins allocation. These activities have prepared a foundation for OCCTE to work collaboratively across the entire Commonwealth of Massachusetts and to serve older workers to meet labor market demand through innovative programs, such as those solicited under the CTE Partnership Planning Grant referenced earlier.

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

Yes

Activities to support entrepreneurship education are carried out by implementing Strand 5 - Management and Entrepreneurship Knowledge and Skills of the Massachusetts Vocational Technical Education Frameworks. Strand 5 was revised spring 2014 during the second phase of the framework revision project which began in 2011. The teaching and learning standards in this strand that are specific to entrepreneurship require Massachusetts' students enrolled in career/vocational technical education programs to analyze the basic business practices required to start and run a company/organization and apply legal requirements and ethical considerations to business practice and decisions. As in prior years, the Community Center for Entrepreneurship (CCE), located at one of the state's Perkins' funded community colleges, has served a resource center that promotes the understanding and growth of entrepreneurial opportunities and supports students through initiatives like Global Entrepreneurship Week; Free Workshops and Seminars; Coaching for Aspiring Entrepreneurs; and Networking with Local Small Business Organizations.

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

The OCCTE funded two leadership academies in 2015-2016. The goals of Perkins Leadership Academy One were to enhance career/vocational technical education for students including those in special populations, create a network of educators in career/vocational technical education in order to share resources and provide mentoring and support within the network throughout their careers, and prepare educators for initial vocational technical administrator licensure and leadership positions in career/vocational technical education. Perkins Leadership Academy Two continued to provide high-quality, intensive, and focused professional development for aspiring leaders in career/vocational technical education to the cohort of educators who participated in the first academy.

In 2015-2016, employment practices were reviewed during the Massachusetts Department of Elementary and Secondary Education's monitoring visits of secondary and postsecondary institutions under the federal "Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color National Origin, Sex, and Handicap in Vocational Education Programs 34 CFR, Part 100, Appendix B (Guidelines)." Specifically, the Massachusetts Department of Elementary and Secondary Education sought evidence that the institution does not engage in any employment practice that discriminates against any employee or applicant for employment on the basis of the five federal protected classes (race, color, national origin, sex and handicap), in addition to the three additional classes for Massachusetts (religion, sexual orientation and gender identity).

Finally, in 2015-2016, Massachusetts continued the process of reviewing the licensure requirements for vocational teachers in order to assure that the standards were relevant to the occupation, the required courses for licensure were necessary for appropriate teacher preparation and were relevant to teachers' and administrators' needs without being unnecessarily onerous for a teacher who was transitioning from the private sector to teaching. The process of generating recommendations for guideline and regulatory change will continue into the next year.

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

Yes

CTE Learning that works for America Campaign & Learning that works for Massachusetts Campaign

In 2015-2016 the Massachusetts Department of Elementary and Secondary education continued to participate in the National Association of State Directors of Career & Technical Education (NASDCTEc) promotional and marketing campaign, "Career and Technical Education (CTE): Learning that Works for America" which is focused on garnering awareness of and support of CTE. The campaign calls on the entire CTE community to participate and deliver a clear unified message about the value of quality CTE. Our state campaign, CTE: Learning that Works for Massachusetts, can be used by educators across the Commonwealth in their efforts to increase support, awareness and advocacy for CTE.

The campaign has three primary objectives:

To bring clarity to CTE communications in order to enhance the ability of key audiences to better understand and appreciate the value of CTE, Career Clusters and other components.

To bring consistency to the manner in which CTE communicates its brand-story and brand-value, using the same fundamental words, images and brand positioning across platforms.

To bring connectivity to CTE messaging that resonates with key audiences in ways that address their concerns, issues and objectives and transforms them into spokesperson and advocates for CTE.

Massachusetts has contributed outcome data that demonstrates the value of Career and Technical Education for students and their families as well as the state of Massachusetts and the nation. In 2015-2016, as a result of the initiatives that Massachusetts undertook the OCCTE staff member who is responsible for the campaign and acted as a consultant to other states looking to implement the national campaign, CTE: Learning that Works for America. In 2015-2016 the Office for Career/Vocational Technical Education surveyed most career vocational technical educational high schools, including comprehensive and agricultural high schools, to gather further information about how each school is using the campaign slogan.

During the reporting year, the requirement to demonstrate labor market demand as part of the application process for new program approval was strengthened. To assist districts in the understanding and use of Labor Market Information (LMI), a series of workshops was held throughout the state in collaboration with the Office of College and Career Readiness featuring their recently developed LMI primer. An additional session was offered in June at the Connecting for Success Conference.

In addition, the Department has organized a Performance Accountability Working group to internally assess the effectiveness of all Perkins funded activities, to analyze data, look for additional data if needed, and develop specific accountability standards for all Perkins-funded activities, along with metrics to analyze effectiveness. In addition, the Perkins staff, as part of the development of a new state-approved vocational technical education program process, has delved deeply into labor market analysis as a way of assuring that all approved programs are in accord with the high growth, high demand and high wage occupations in Massachusetts. A strategy for statewide Labor Market analysis was also an integral part of the New Skills for Youth application and will undoubtedly be pursued further even if the OCCTE does not receive grant funding for that activity as labor market demand is integral to the state's program approval process.

Finally, as a way of assisting districts self assess, the group developed a Quality Assessment Tool which districts can use as a method to determine whether they are providing a quality program experience for students based upon the degree to which they are implementing Chapter 74 regulations, which are modeled on the Perkins Act. Schools can use the instrument to self-assess and also to build an action plan which will allow for program planning, use of new curriculum models, work-based learning, counseling, use of data and other items.