

Consolidated Annual Report, Program Year 2013 - 2014 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. This year, the Office of Career/Vocational Technical Education continues to work on a project funded through RTTT to improve the competency tracking system used by districts to record student progress toward proficiency in the skills standards of the Vocational Technical Frameworks. A Competency Tracking Advisory Committee, including technical teachers, technology directors and administrators from across the state advised the procurement team on desired features and functionality for the system. Members came from regional vocational technical districts, comprehensive high schools with vocational programs, agricultural schools and urban vocational technical high schools.

Competency tracking functionality is included in the new EDWIN Teaching and Learning System which also includes model curriculum units, curriculum mapping and lesson planning tools, digital resources and assessment tools. In 2013-2014, the system was running with 34 districts with CTE programs having submitted commitment letters thus far. Teachers who have begun to use the competency tracking functionality within EDWIN have reported that it was easy to use and that it will be a valuable tool for their programs. Functionality allowing districts to record student attainment of industry credentials will be added to the system this year.

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

During FY 2013-2014, several OCVTE and DESE staff were invited to participate in the P20 Project which was intended to make 1) make information in the DESE Data Warehouse more accessible and user friendly and 2) to provide all DESE staff with follow-up data on postsecondary placement by linking up with postsecondary data bases and ultimately with long term employment records in order to make assessment of student data more proactive by viewing developing trends in student performance, and also to better assess student outcomes by looking at actual postsecondary retention and success rates and long term wages and employment. The P20 process resulted in a system called EDWIN Analytics and is now available to school districts and OCVTE personnel. Although some of the data desired (some postsecondary data and placement wages) is not yet available, this system promises to provide a rich source of data to analyze under current and future Perkins initiatives.

Consolidated Annual Report, Program Year 2013 - 2014 Massachusetts

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?

Each year, the Massachusetts Department of Elementary and Secondary Education's Office for Career/Vocational Technical Education (OCVTE) 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 with their OCVTE program liaisons performance for all Perkins Performance Indicators 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 Career/Vocational Technical Educations, in collaboration with the offices for Program Quality Assurance, English Language Acquisition, and Audit & Compliance participates in monitoring of school districts that are recipients of Perkins funds. In 2013-2014 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 five districts, which were shared with the districts. The Audit and Compliance unit reported identified data findings and financial findings (such as supplanting local costs). The DESE sent notices and arranged 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 OCVTE for the assessment of the career and technical education programs, found in the coordinated Program Review Procedures School District Information for Package Career/Vocational Technical Education 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.

Two districts were also monitored for Civil Rights compliance using the Perkins MOA Civil Rights review instrument.

In addition, staff from the Office for Career/Vocational Technical Education 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 2013-2014 the OCVTE conducted civil rights monitoring at two 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 who are recipients of Perkins funds is conducted by staff from the Office for Career/Vocational Technical Education (OCVTE) through annual desk reviews. No financial and data 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 Office for Career/Vocational Technical Education. A new cycle of audits is being considered. Correctional institutions were not monitored onsite in 2013 (two were reviewed in 2012), but were monitored using a desk review instrument in 2014.

In addition, as allocation grants are being reviewed, the OCVTE staff reviews 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 population 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 was updated during the reporting year. 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. OCVTE 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 budget also allow school districts and colleges to provide professional development of staff which includes upgrading teachers' technological skills.

During onsite monitoring, OCVTE staff look for evidence of the teaching and learning of 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? (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 2013-2014, 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 VTCTS, is no longer being supported by the Commonwealth and is being phased out. However, many districts have participated in projects related to the improved competency tracking system for vocational technical students as part of Massachusetts' Race to the Top activities. 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 is now included in the EDWIN Teaching and Learning (T&L) System. The EDWIN T&L vendor, Thinkgate, has been providing training sessions to vocational and technical school districts and comprehensive high schools that have CTE programs throughout the state. The EDWIN Teaching and Learning System has been designed to improve instruction by provided curriculum and assessment tools in one application. It includes curriculum mapping, unit and lesson planning, and digital resources all tagged to standards. In addition to traditional assessment tools for the administration and analysis of district and formative assessments, it includes competency tracking functionality. This system will not be mandatory for school districts, but will be available to school districts at a very low cost per student and can be used to track vocational and other Perkins competencies. There is a complementary system offered by the state at no charge to districts called EDWIN Analytics, 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, which will allow educational institutions to analyze how students are faring once they leave school. Districts will be able to access both EDWIN tools through a single log-in process. Data will flow from districts' Student Information systems through the Schools Interoperability Framework (SIF) providing near real time updates. This will be particularly helpful for districts with highly mobile student populations. Training on these systems will continue as new administrators and teachers come on board.

CVTE Frameworks Revisions

Over the past two years, the OCVTE 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. During this reporting cycle, OCVTE led the second phase of the statewide project to revise Strand 1 (Safety & Health), Strand 4 (Employability and Career Readiness) and Strand 5 (Management & Entrepreneurship) for all vocational framework curricula. All of the vocational frameworks underwent a public comment period and have been 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 is often directly connected to technology. Finally, OCVTE has received several applications for biotechnology, engineering, and drafting programs, among others, enhancing the technological profile of CTE offerings.

STEM Pilot Partnership Initiative

The ongoing national emphasis on STEM (Science, Technology, Engineering and Match) career was explored and developed with local vocational program delivery systems by the Office for Career/Vocational Technical Education this year. Since most CVTE programs have high concentrations of science, technology, engineering, and mathematics, it seemed logical to more actively engage school districts in STEM education initiatives, based on common goals. The Office continued working with other Department of Elementary and Secondary Education offices involved in supporting and promoting STEM development. Staff also attended webinars on integration of STEM into CVTE activities. Starting in August of 2012, the Office for Career/Vocational Technical Education convened an Ad-hoc CVTE/STEM Task force Initiative meeting, comprised of representatives from across the Commonwealth, one of whom serves on Massachusetts STEM Council; in an effort to strategize how Massachusetts CVTE may collaboratively pursue specific CVTE/STEM statewide initiatives to expand and enhance program development opportunities for all career/vocational technical education students in Massachusetts. Three OCVTE staff also attended meetings of four regional STEM collaborative in different regions of the Commonwealth to establish relationships with these groups. The Office for Career/Vocational Technical Education continued to research the number of students who participate in STEM-related programs, and continued to cultivate development of four regional CVTE/STEM Pilot Partnerships (Western, Central, Metro, and South East) to collaborate on shared projects. In October of 2012, the OCVTE submitted four proposals (one from each Team) to the Massachusetts STEM Council in order to compete for a grant from the Massachusetts STEM Council to help meet the goals of STEM Council Goal # 6: to align STEM education programs with the workforce needs of key economic sectors. Of the four proposals submitted, the Council recommended funding the Western Massachusetts Manufacturing Initiative, which has four vocational schools training individuals 18-24 years of age in advanced manufacturing, which is an industry in need of new workers in that region of the Commonwealth. The program's collaboration with Workforce Investment Act Workforce Investment Boards and the private sector will be a replicable model for the rest of the state and has already trained two classes of students. Eventually this model will bring in postsecondary institutions and form collaborative teams to plan how to address common goals related to STEM and other local priorities, laying the foundation for regional consortia envisioned in the proposed Perkins V Blueprint. This program can also be used as a template to forge new partnerships in other technology-based industries across the Commonwealth.

The program concluded in August 2014 and is considered a replicable/scalable model for training by the Commonwealth, especially in the area of advanced manufacturing, a revitalized and growing sector of the Massachusetts economy.

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?

Professional Development Programs Initial Teacher Preparation

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

In 2013-2014, under the Massachusetts Vocational Technical Teacher Testing Program, there were six administrations of written examinations and two administrations of performance examinations in forty-three of the forty-five technical areas. A total of 675 written and/or performance examinations were administered. A total of 206 candidates qualified for Massachusetts Vocational Technical Teacher Licensure by passing both examinations. In FY 14 there was a slight increase in the passing rates for candidates participating in the written exam and performance exams: The FY 14 passing rate for candidates participating in the written exam was 63% and 76% for the performance exam (it was 62% and 76% respectively in FY 13).

With the completion the CVTE statewide Framework Revision Project, the Vocational Technical Teacher Testing Program has developed a plan to revise all of the current vocational technical teacher tests, for alignment to the newly approved vocational frameworks.

Special Education Leadership Institutes

The Office for Career/Vocational Technical Education (OCVTE) 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 (The Institute). For SY 2014-15, nine Perkins local recipients, with 28 school administrators, were accepted and all registered. Third-year participants (known as Cohort 3) began April 2014 and will conclude in April 2015. 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.

Each district is required to send a team of four staff to five full day sessions in the spring of SY 2013-14, as well as throughout the fall and winter of SY 2014-15. Each team committed to including the superintendent (one session only), the special education director, academic coordinator and vocational technical coordinator. Teams participate in relevant professional development, as determined by a pre-Institute needs assessment, including webinars, in person and phone technical assistance delivered by OCVTE, OSEPP and staff from WestEd Learning Innovations. Throughout the Institute each team uses Perkins Core Indicator data to assess the district's Perkins-funded programs and performance of students with disabilities in the programs. Each team is then required to identify a challenge specifically in supporting students with disabilities in career and technical education and implement an action plan. The Institute will conclude in April 2015 and will include a final summative evaluation of all participants completed by WestEd, as well as provide a final report to OSEPP identifying successes and challenges to inform planning for future Institutes.

Perkins IV Leadership Academies

The Department of Elementary and Secondary Education once again used Perkins funds to support professional development provided in partnership with school districts with career/vocational technical education programs and the statewide career/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 Technical Administrator licensure for academy attendees thus creating a leadership pipeline in career/vocational technical education.

Connecting for Success Conference

Connecting for Success Conference – In 2013-2014, this two-day statewide 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 third year, pre-conference sessions were offered for teachers to acquire credentials enabling them to offer certifications to students in ServSafe food safety, EPA RRP Rule Lead Paint, Construction Supervisor, and several Adobe certifications. Staff from the Department of Elementary and Secondary Education's Office for Career/Vocational Technical Education (OCVTE) 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. CVTE staff also offered workshops on statewide initiatives, improving the IEP form, the Coordinated Program Review Process, Grants Preparation, Perkins 101, and the new Edwin Teaching and Learning system. CVTE staff collaborated with other Department of Elementary and Secondary Education staff to offer workshops on District Determined Measures of growth for use in the new Educator Evaluation system, Quality Professional Development, Individual Learning Plans, the EDWIN Analytics Early Warning System, and Support for Transgender students. Workshops were also offered on a Buyers Guide to Post Secondary Education and on Proprietary Schools. Model Curriculum Unit development team offered sessions for colleagues on the units developed for Culinary Arts, Automotive Technology, Early Education and Care, Health Assisting and Carpentry.

The offerings provided by the OCVTE were among the most well attended and highly rated sessions of the conference. By request, many will be offered again at the 2015 conference.

The DESE also commenced the development of standards for Professional Development. These will be incorporated in OCVTE Professional Development when finalized.

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 approvals for programs that are nontraditional for females and three approvals for programs that are nontraditional for males. Of these fifteen approved programs, one is a postsecondary program, serving adult students. Two districts which had piloted the Criminal Justice program in the 2012-2013 school year obtained program approval, adding to the number of programs that prepare for non-traditional fields in current and emerging professions. In 2013 – 2014, there were fifteen (15) new program approvals.

In addition, the Massachusetts Department of Elementary and Secondary Education Office for Career/Vocational Technical Education retains the services of an Equity Consultant who provides both technical assistance and professional development. This consultant continued to provide technical assistance and professional development to teachers, administrators, counselors, 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 some 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, OCVTE regularly responds to district and college inquiries regarding access to and support in programs for special populations. Additionally, OCVTE 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 OCVTE collaborates with the Massachusetts Association of Vocational Administrators 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 2013-2014, several offices of the Department of Elementary and Secondary Education provided workshops addressing support for programs for special populations that lead to high skill, high wage and high demand occupations. Staff from the Office of College and Career Readiness presented on Individual Learning Plans (ILP), a student-driven planning and monitoring tool that provides students with the opportunity to identify post-secondary goals and the academic pathway, social/emotional skills and career development education necessary for post-secondary success. There are plans to use the ILP to provide career knowledge, pathways, educational and career objectives into one universal form to be recommended for all students, including those in CTE programs. Staff from the Office of Special Education presented on the state's Individualized Education Plan (IEP), soliciting questions and feedback from the vocational community for consideration in revisions to the IEP form.

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 the past decade, the Department's Office for Special Education Policy and Planning (OSEPP) has funded a special education staff position in the Office for Career/Vocational Technical Education (OCVTE). The position ensures that relevant information, guidance and technical assistance specific to students with disabilities are available to eligible district/college recipients. The OCVTE 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, as well as 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, since May 2014, the same special education staff person in the Office for Career/Vocational Technical Education has been participating in the Boston Special Education Transition (B-SET) Project's Workforce Development Task Force.

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 school and after exiting. This includes identifying and supporting programs that lead to high skill, high wage and high demand occupations for all students with disabilities in Boston.

The task force has four objectives:

Develop a resource map identifying strengths and gaps in resources to provide to Boston youth and young adults with disabilities inclusive employment, college, supported work, and/or independent living opportunities.

Identify best and promising practices and programs from local or external models.

Develop an implementation plan to meet the project's goals by more effectively utilizing existing resources and seeking new external resources.

Create synergies among members to more effectively use existing and seek new resources.

The organizational membership of the task force currently stands at over 60 organizations and over 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. Part of this groups plan is to include recommendations for the future of the task force beyond meeting the initial set of objectives.

How 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 Office for Career/Vocational Technical Education (OCVTE) 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 Indicator, disaggregated by special populations. In addition, as part of the Department's monitoring system, OCVTE reviews each eligible recipient receiving Perkins funds for the following:

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

Leadership Institute organized by an OCVTE staff member working with the Department's Office for Special Education Policy and Planning.

Participation in the Boston Special Education Transition (B-SET) Project's Workforce Development Task Force by an OCVTE staff member focusing on assessing the needs of students with disabilities in Boston Public Schools in regards to workforce and post-secondary education placements and opportunities.

Professional Development in assisting Districts and Colleges in Increasing Enrollment in and Retaining Student Nontraditional by Gender Occupational Training

The Massachusetts Department of Elementary and Secondary Education Office for Career/Vocational Technical Education retains the services of an Equity Consultant who provides both technical assistance and professional development in this area. The individual provides in person professional development and follow-up on professional development through email and personal visits to districts and colleges to help them develop outreach and retention strategies to involve students in occupations that are nontraditional by gender. On average, this individual provides 6-9 visits or contacts with school districts per month to introduce or reinforce professional development.

The Equity Consultant provided technical assistance and training 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. Technical assistance was provided by email, telephone, and in-person. Statewide technical assistance and training included workshops at the Massachusetts Vocational Association (MVA), and at the Massachusetts Association of Vocational Administrators (MAVA) Leadership Academy. These workshops addressed gender equity, gender identity, and school climate. The Equity Consultant also participated in the State SkillsUSA competition by judging the Nontraditional by Gender Portfolio submissions. In addition, the contractor planned and coordinated:

four regional networking meetings for school personnel who are spearheading efforts in their schools to prepare students for careers that are nontraditional for their gender; and

three leadership workshops for students who are pursuing careers that are nontraditional for their gender and their adult advisors. 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 2013-2014, staff from the Massachusetts Department of Elementary and Secondary Education's Office for Career/Vocational Technical Education (OCVTE) supported the development of new career/vocational technical education programs through the state's program approval process. In 2013 -2014, fifteen (15) secondary and one post secondary new Chapter 74 programs were approved. Areas of study approved were: Engineering Technology, Marketing, Business Technology, Early Education and Care, Radio & Television Broadcasting, Exploratory, Design & Visual Communications, Biotechnology, Heating-Ventilation-Air Conditioning, Hospitality Management, Dental Assisting, Medical Assisting, and Criminal Justice/Legal & Protective Services. As of October 1, 2013, these new programs showed enrollments of 725 secondary students and forty postsecondary 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 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.

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

District School Assessment Center Teams are led by a Regional Assistance Director, a part-time recently retired superintendent, who works with a small assistance team of a former principal, a data specialist, a mathematics specialist, a literacy specialist, and a CVTE specialist. The DSAC teams collaborate with districts to assess their strengths and needs, facilitate access to resources and professional development, establish partnerships and networks, and deliver individualized assistance for the region's districts. In 2012-2014, the DSAC teams took part in the Engaging All Students in Mathematical Thinking and Practices in CVTE Programs Institute. This activity, funded with a Perkins grant, supported regional efforts between school districts to develop and implement a project designed to systematically support professional development and curriculum development in mathematics through collaboration between special education service delivery and academic and vocational instruction. The goal of the Engaging All Students in Mathematical Thinking and Practices in CVTE Programs Institute is to provide vocational technical school teachers (i.e., special education, vocational, and academic staff) with knowledge, skills, and resources to target specific technical math skills and applications to support the improvement of educational outcomes for all students. The driving perspective of the Institute is the development and strategic implementation of a more collaborative system of teaching and learning mathematics between academic, special education, and vocational instruction.

CVTE Instructional Leadership Network (Tech ILN)

The goal of the Tech ILN is to build a regional network of technical educators focused on improved instruction and student achievement. Through this network the team will collaborate and work together to provide models of effective integrated learning for CVTE students, model effective approaches for CVTE school improvement, and promote sharing of effective practices. The driving perspective of the institute is to integrate authentic applications in academic classrooms and to integrate rigorous academic theory and practice in CVTE shops and related classrooms. In 2014-2015 the CVTE Tech ILN will meet once a month and focus on instruction and assessment in vocational/technical schools and programs.

In 2013-2014, staff from the Massachusetts Department of Elementary and Secondary Education's Office for Career/Vocational Technical Education (OCVTE) 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 CVTE programs, Cooperative Education Programs, Admissions, and access to CVTE 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

As in prior years, in 2013-2014, 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.

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

Training 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 more than twenty technical assistance sessions in thirty school districts during the period in question. Including four state regional networking meetings for school personnel who are spearheading efforts in their schools to prepare students for careers that are nontraditional for their gender; and three state leadership workshops for students who are pursuing careers that are nontraditional for their gender and their adult advisors. 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.

7. Serving individuals in state institutions

Part I: State Correctional Institutions

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

162440

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 2013-2014, the OCVTE 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, construction, custodial technician, small engine repair, horticulture, HVAC, welding, auto tech, and green technologies.

In 2013-2014, eight (8) 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.

Not applicable

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?

No

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

No

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

No

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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 revised MA Vocational Technical Education (VTE) Frameworks were approved in 2013-2014. As part of the revision, Strand Three, Embedded Academics, was cross-walked between the MA academic curriculum standards and the VTE technical standards (Strand Two). The crosswalk directly correlates the English Language Arts (2011) and Mathematics (2011) Frameworks, incorporating the Common Core Standards and the Science and Technology/Engineering Frameworks.

In addition, the state provided training on curriculum development which resulted in the development of model curriculum units for five career and technical education programs. Workshops on these model curriculum units were delivered at the annual statewide conference of the Massachusetts Association of Vocational Administrators (MAVA).

In 2012-2013, a team of Culinary Arts technical teachers was convened and facilitated by an Academic Coordinator from a regional vocational technical high school to develop a Model Curriculum Unit for Culinary Arts. Using the Understanding by Design template, the team identified the academic and technical standards that would be explicitly addressed and assessed in the unit. This project expanded, convening four more teams of technical and academic teachers to produce Model Curriculum Units (MCUs) in Automotive Technology, Carpentry, Early Education and Care and Health Assisting. Additionally a General Rubric Team was created to create exemplar rubrics for various strands of the Vocational Technical Education Frameworks, Exploratory Programs, Capstone Projects and Cooperative Education Readiness, among others. The work of developing the units was completed during 2013-2014. The units will be made available through posting on the DESE website and also be included in the Edwin Teaching and Learning system. Teams presented their work at the Summer Connecting for Success Conference.

The Vocational Technical Education (VTE) standards were added to the curriculum search tool on the DESE website which enables all teachers and administrators to search the Academic and VTE curriculum frameworks, separately or in combination and also to search all frameworks by keyword. This functionality promotes integration and also provides academic teachers with examples of the application of academic standards.

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 Investment 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 Office for Career/Vocational Technical Education (OCVTE) continues to monitor for compliance through the Coordinated Program Review process. In 2013-2014, the criterion that guided such monitoring was: "Are programs structured so that students acquire academic (including embedded academic) knowledge and skills?" In 2013-2014, OCVTE 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 2013-2014, 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 Apprenticeship Training, 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 Early Education and Care, Massachusetts Area Health Education Center (AHEC) Network at the University of Massachusetts Medical School, Plumbing, Heating, Cooling Contractors of Massachusetts, 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.

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 Office for Career/Vocational Technical Education (OCVTE) participate on the YES team.

A staff person from OCVTE 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, OCVTE staff continue working 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.

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.

4. During the reporting year, did your state use Perkins funds to establish agreements, including articulation agreements, between secondary school and postsecondary career and technical education programs to provide postsecondary education and training opportunities for students?

Yes

The Massachusetts Perkins IV Secondary Postsecondary Career/Vocational Technical Education Linkage Initiatives were delivered in 2013-2014 through the Massachusetts community colleges in collaboration with the school districts. Postsecondary Perkins grants contained a 20% set aside of funds to ensure community colleges created linkage programs and activities with nearby secondary high schools. Linkage initiatives also included the local development, modifications, and approval of 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 or when they came for a campus tour or technical program presentation. School-wide and/or classroom presentations on dual enrollment were also conducted. Massachusetts students enrolled in career and technical education programs received dual enrollment credit through the Commonwealth Dual Enrollment-funded program, although exact enrollment and outcome data is not yet available. To facilitate access to dual enrollment for some community colleges waived the requirement for college-level placement on the Accuplacer as a condition of dual enrollment. Students enrolled in career and technical education programs also received credit through innovative CVTE linkage efforts such as after school and summer early college courses.

In 2013-2014, OCVTE continued to work with the Massachusetts Community College Executive Office and the Massachusetts Vocational Administrators Association (MAVA) to establish additional statewide articulation agreements with the 15 community colleges. The Office for Career/Vocational Technical Education in partnership with the Massachusetts Community Colleges Executive Office completed seven additional statewide articulation agreements for student enrolled in chapter 74 state-approved vocational technical education programs. Massachusetts now has a total of fourteen statewide articulation agreements.

A Statewide Articulation Taskforce comprised of; faculty and administration from the community colleges, chapter 74 approved secondary vocational technical programs, the Massachusetts Community Colleges Executive Office (MCCEO), the Department of Elementary and Secondary Education – Office for Career/Vocational Technical Education (CVTE), and the Massachusetts Association of Vocational Administrators (MAVA) was re-formed.

The Statewide Articulation Taskforce completed agreements in the following seven fields.

C.74 Business Technology

C. 74 Carpentry

C. 74 Health Assisting (Certified Nursing Assistant)

C. 74 Heating, Air Conditioning, & Refrigeration

C.74 Hospitality Administration

C.74 Medical Assisting

C. 74 Machine Tool Technology (Advanced Manufacturing)

These articulation agreements will assist students enrolled in chapter 74 state-approved programs to transition to postsecondary education within Massachusetts community colleges.

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

In 2013-2014, 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. 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.

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

Yes

In 2013-2014, 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. Per 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 2013-2014, 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 2013-2014, 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. 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 the Center for Vocational, Workforce and College Readiness Programs provides oversight and alignment of the Career Vocational Technical Education, the College and Career Readiness and the Adult Community Learning Services Units 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 2013-2014, 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 2013-2014, 2,490 secondary students from 26 vocational technical high schools, 1 independent vocational and agricultural school, 2 agricultural schools, one collaborative, 10 academic regional schools, and 31 comprehensive high schools with career/vocational technical education programs (up from 1,359 in 2008-09, an 83% increase) gained valuable workplace experience through participation in the cooperative education component of their career/vocational technical education programs.

Of this total, 853 (34.3%) were female, down slightly from 37.6% in 2008-09. Members of ethnic/racial minorities totaled 472 (19%; up from 17% in 2008-09). Low-income students in cooperative education totaled 835 (33.5%; up from 26.1% in 2008-09). Students with disabilities totaled 321 (12.9%; down from 15.2% in 2008-09).

The Office for Career/Vocational Technical Education also engaged in 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 trained 18-24 year olds in Advanced Manufacturing Trades in Western Massachusetts—a region which is experiencing a deficit of workers in this field—and will also serve as a model for collaboration as the project is being conducted by four vocational schools in cooperation with the local Workforce Investment Boards and the private sector. Also, OCVTE staff members have been actively promoting and finalizing articulation agreements between secondary and postsecondary schools and have also, in collaboration with the 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 2013-2014, staff from the Massachusetts Department of Elementary and Secondary Education's Office for Career/Vocational Technical Education (OCVTE) 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 2013-2014, fifteen (15) new programs were approved (1 of these were postsecondary) in eleven (11) districts as outlined below. A total of 725 students were reported as enrolled in these 15 programs in October 2014.

Secondary Programs: Attleboro – Engineering Technology; Boston – Marketing and Business Technology; Peabody – Early Education and Care; Taunton – Radio and Television Broadcasting and Exploratory; Blackstone Valley – Design and Visual Communications; Bristol-Plymouth – Biotechnology; Greater Lawrence – HVAC; Pathfinder – Hospitality Management; Southeastern – Criminal Justice, Dental Assisting and Medical Assisting; Tri-County – Criminal Justice; Whittier – Hospitality Management.

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.

Additionally, the state legislature gave full approval to Criminal Justice as a state-Approved Chapter 74 Vocational Technical Education Program, opening the door to new training opportunities for students in Perkins-funded districts. DESE is currently exploring adding additional programs to expand the palette of state-approved Chapter 74 programs available to students.

The Office for Career/Vocational Technical Education also engaged in 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 will serve: 1) to train 18-24 year olds in Advanced Manufacturing Trades in Western Massachusetts—a region which is experiencing a labor deficit—and will also serve as a model for collaboration as the project is being conducted by four vocational schools in cooperation with the local Workforce Investment Boards and the private sector. Also, although it is not a major initiative in OCVTE, several recipients of Perkins funds--secondary and postsecondary--are sponsoring distance learning programs and career pathways initiatives with part of their Perkins allocation. This program concluded its training in fall of 2014 and is being used as a scalable model for advanced manufacturing training.

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 Office for Career/Vocational Technical Education funded two leadership academies in 2013-2014. 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 2013-2014, 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).

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 2013-2014 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 2013-2014, as a result of the initiatives that Massachusetts undertook the two OCVTE staff who are responsible for the campaign acted as consultants to other states looking to implement the national campaign, CTE: Learning that Works for America. In 2014-2015 the Office for Career/Vocational Technical Education will survey all 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.

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Step 4: Technical Skills Assessment

Provide a summary of your state's plan and timeframe for increasing the coverage of programs entered above.

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. As part of the Vocational Technical Education Frameworks revision process, teams of technical teachers working with industry advisory members identified credentials attainable by secondary students and valued by industry. The Competency Tracking advisory committee composed of technical teachers, administrators and technology coordinators from across the state, continued to work, providing feedback on the development of the Competency Tracking functions to be included in the new Edwin Teaching and Learning system. Also, in 2012-2013, teams were convened to develop rubrics for the assessment of performance on the standards contained in all strands of the Vocational Technical Education Frameworks. These rubric exemplars will be included in the Competency Tracking portion of the Edwin Teaching and Learning system to increase consistency in performance assessment.

As part of the Vocational Technical Education Frameworks revision process this past year, teams of technical teachers in each program area identified credentials valued by industry that could be attained by secondary students. Advisory Committee members throughout the state were also asked, as part of the frameworks revision validation process, to review the listed credentials and to identify additional credentials, if any. The information gleaned through this process will increase the number and type of available credentials for several program areas during the coming year.

Enter the number of students assessed for technical skill attainment, and the total number of CTE concentrators reported for the program year. The percent of students assessed for technical skill attainment will be automatically calculated.

Population	Number of Students in the Numerator	Number of Students in the Denominator	Percent of Students Assessed
Secondary Students	10699	23483	45.5606183196355
Postsecondary Students	40937	40937	100

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Step 8: Program Improvement Plans

Extension Requested?

No

Required Program Improvement Plans

Directions: Your state has failed to meet at least 90% of the state adjusted level of performance for the core indicators of performance listed in the table below. Please provide a state program improvement plan addressing the items found in the column headings of the table below.

Core Indicator	Disaggregated categories of students for which there were quantifiable disparities or gaps in performance compared to all students or any other category of students	Action step to be implemented	Staff member responsible for each action step	Timeline for completing each action step
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Improvement Plans at the local recipient level, including analysis of which factors cause the postsecondary institutions' failure to meet these goals, including: analysis of why discrete student populations did not meet the standard; examination of student recruitment strategies that would encourage students to enroll in nontraditional by gender programs; student support systems that would encourage students to complete these programs.	Postsecondary institutions; CVTE Liaisons.	03-31-15
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Technical assistance through consultants provided by the state and/or funded through local Perkins grants	Gender Equity Team or Contractor; Postsecondary Institutions; CVTE liaisons	09-30-15
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84%	Work on nontraditional by gender recruitment strategies with local Career Centers and encouraging postsecondary institutions to use	Post-secondary Institutions; CVTE liaisons	06-30-15

Core Indicator	Disaggregated categories of	Action step to be implemented	Staff member	Timeline
	Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	counseling and recruitment of outside speakers who are already in nontraditional by gender occupations to encourage students to consider enrolling in and completing these career training opportunities.		
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21% Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	Improvement Plans at the local recipient level, including analysis of which factors cause the postsecondary institutions' failure to meet these goals, including: analysis of why discrete student populations did not meet the standard; examination of student recruitment strategies that would encourage students to enroll in nontraditional by gender programs; student support systems that would encourage students to complete these programs.	Postsecondary institutions; CVTE Liaisons.	03-31-15
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21% Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	Technical assistance through consultants provided by the state and/or funded through local Perkins grants	Gender Equity Team or Contractor; Postsecondary Institutions; CVTE liaisons	09-30-15
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21% Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	Work on nontraditional by gender recruitment strategies with local Career Centers and encouraging postsecondary institutions to use counseling and recruitment of outside speakers who are already in nontraditional by gender occupations to encourage students to consider enrolling in and completing these career training opportunities.	Post-secondary Institutions; CVTE liaisons	06-30-15

Local Program Improvement Plans

Forty-four (44) of the ninety-three (93) secondary eligible recipients failed to meet 90% of the agreed upon local adjusted level of performance for all students (i.e., total) in one or more core indicators.

Core Indicators 6S1, 6S2, 2S1, and 1S2 are the indicators in most need of attention at the local level for secondary institutions in Massachusetts.

Secondary eligible recipients that failed to meet:

Core Indicator	Disaggregated categories of students for which there were quantifiable disparities or gaps in performance compared to all students or any other category of students	Action step to be implemented	Staff member responsible for each action step	Timeline for completing each action step
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Improvement Plans at the local recipient level, including analysis of which factors cause the postsecondary institutions' failure to meet these goals, including: analysis of why discrete student populations did not meet the standard; examination of student recruitment strategies that would encourage students to enroll in nontraditional by gender programs; student support systems that would encourage students to complete these programs.	Postsecondary institutions; CVTE Liaisons.	03-31-15
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Technical assistance through consultants provided by the state and/or funded through local Perkins grants	Gender Equity Team or Contractor; Postsecondary Institutions; CVTE liaisons	09-30-15
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Work on nontraditional by gender recruitment strategies with local Career Centers and encouraging postsecondary institutions to use counseling and recruitment of outside speakers who are already in nontraditional by gender occupations to encourage students to consider	Post-secondary Institutions; CVTE liaisons	06-30-15

Core Indicator	Disaggregated categories of	Action step to be implemented	Staff member	Timeline
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21% Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	Improvement Plans at the local recipient level, including analysis of which factors cause the postsecondary institutions' failure to meet these goals, including: analysis of why discrete student populations did not meet the standard; examination of student recruitment strategies that would encourage students to enroll in nontraditional by gender programs; student support systems that would encourage students to complete these programs.	Postsecondary institutions; CVTE Liaisons.	03-31-15
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21% Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	Technical assistance through consultants provided by the state and/or funded through local Perkins grants	Gender Equity Team or Contractor; Postsecondary Institutions; CVTE liaisons	09-30-15
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21% Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	Work on nontraditional by gender recruitment strategies with local Career Centers and encouraging postsecondary institutions to use counseling and recruitment of outside speakers who are already in nontraditional by gender occupations to encourage students to consider enrolling in and completing these career training opportunities.	Post-secondary Institutions; CVTE liaisons	06-30-15

Core Indicator 1S1: One (1)

Core Indicator 1S2: Ten (10)

Core Indicator 2S1: Eleven (11)

Core Indicator 3S1: Two (2)

Core Indicator 4S1: Two (2)

Core Indicator 5S1: One (1)

Core Indicator 6S1: Twenty-six (26)

Core Indicator 6S2: Twenty-five (25)

POSTSECONDARY

Postsecondary eligible recipients that failed to meet Core Indicators: Fifteen (15) out of Seventeen (17)

Core Indicator	Disaggregated categories of students for which there were quantifiable disparities or gaps in performance compared to all students or any other category of students	Action step to be implemented	Staff member responsible for each action step	Timeline for completing each action step
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Improvement Plans at the local recipient level, including analysis of which factors cause the postsecondary institutions' failure to meet these goals, including: analysis of why discrete student populations did not meet the standard; examination of student recruitment strategies that would encourage students to enroll in nontraditional by gender programs; student support systems that would encourage students to complete these programs.	Postsecondary institutions; CVTE Liaisons.	03-31-15
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Technical assistance through consultants provided by the state and/or funded through local Perkins grants	Gender Equity Team or Contractor; Postsecondary Institutions; CVTE liaisons	09-30-15
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Work on nontraditional by gender recruitment strategies with local Career Centers and encouraging postsecondary institutions to use counseling and recruitment of outside speakers who are already in nontraditional by gender occupations to	Post-secondary Institutions; CVTE liaisons	06-30-15

Core Indicator	Disaggregated categories of	Action step to be implemented	Staff member	Timeline
		encourage students to consider enrolling in and completing these career training opportunities.		
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21% Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	Improvement Plans at the local recipient level, including analysis of which factors cause the postsecondary institutions' failure to meet these goals, including: analysis of why discrete student populations did not meet the standard; examination of student recruitment strategies that would encourage students to enroll in nontraditional by gender programs; student support systems that would encourage students to complete these programs.	Postsecondary institutions; CVTE Liaisons.	03-31-15
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21% Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	Technical assistance through consultants provided by the state and/or funded through local Perkins grants	Gender Equity Team or Contractor; Postsecondary Institutions; CVTE liaisons	09-30-15
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21% Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	Work on nontraditional by gender recruitment strategies with local Career Centers and encouraging postsecondary institutions to use counseling and recruitment of outside speakers who are already in nontraditional by gender occupations to encourage students to consider enrolling in and completing these career training opportunities.	Post-secondary Institutions; CVTE liaisons	06-30-15

Fifteen (15) of the seventeen (17) eligible recipients failed to meet 90% of the agreed upon local adjusted level of performance for all students (i.e., total) in one or more core indicators. As this data summary shows, degree, certificate credential (2P1); nontraditional enrollment (5P1) and completion (5P2) are the areas where Massachusetts must focus its improvement strategies.

Core Indicator	Disaggregated categories of	Action step to be implemented	Staff member	Timeline
	students for which there were		responsible for	for

Core Indicator	Disaggregated categories of quantifiable disparities or gaps in performance compared to all students or any other category of students	Action step to be implemented	Staff member each action step	Timeline completing each action step
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Improvement Plans at the local recipient level, including analysis of which factors cause the postsecondary institutions' failure to meet these goals, including: analysis of why discrete student populations did not meet the standard; examination of student recruitment strategies that would encourage students to enroll in nontraditional by gender programs; student support systems that would encourage students to complete these programs.	Postsecondary institutions; CVTE Liaisons.	03-31-15
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Technical assistance through consultants provided by the state and/or funded through local Perkins grants	Gender Equity Team or Contractor; Postsecondary Institutions; CVTE liaisons	09-30-15
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Work on nontraditional by gender recruitment strategies with local Career Centers and encouraging postsecondary institutions to use counseling and recruitment of outside speakers who are already in nontraditional by gender occupations to encourage students to consider enrolling in and completing these career training opportunities.	Post-secondary Institutions; CVTE liaisons	06-30-15
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21%	Improvement Plans at the local recipient level, including analysis of which factors cause the postsecondary institutions' failure to meet these goals, including: analysis of why discrete student populations did not meet the standard; examination of student	Postsecondary institutions; CVTE Liaisons.	03-31-15

Core Indicator	Disaggregated categories of	Action step to be implemented	Staff member	Timeline
	Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	recruitment strategies that would encourage students to enroll in nontraditional by gender programs; student support systems that would encourage students to complete these programs.		
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21% Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	Technical assistance through consultants provided by the state and/or funded through local Perkins grants	Gender Equity Team or Contractor; Postsecondary Institutions; CVTE liaisons	09-30-15
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21% Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	Work on nontraditional by gender recruitment strategies with local Career Centers and encouraging postsecondary institutions to use counseling and recruitment of outside speakers who are already in nontraditional by gender occupations to encourage students to consider enrolling in and completing these career training opportunities.	Post-secondary Institutions; CVTE liaisons	06-30-15

Postsecondary eligible recipients that failed to meet:

Core Indicator	Disaggregated categories of students for which there were quantifiable disparities or gaps in performance compared to all students or any other category of students	Action step to be implemented	Staff member responsible for each action step	Timeline for completing each action step
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8%	Improvement Plans at the local recipient level, including analysis of which factors cause the postsecondary institutions' failure to meet these goals, including: analysis of why discrete student populations did not meet the	Postsecondary institutions; CVTE Liaisons.	03-31-15

Core Indicator	Disaggregated categories of	Action step to be implemented	Staff member	Timeline
5P1	Tech Prep: 22.02%	standard; examination of student recruitment strategies that would encourage students to enroll in nontraditional by gender programs; student support systems that would encourage students to complete these programs.		
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Technical assistance through consultants provided by the state and/or funded through local Perkins grants	Gender Equity Team or Contractor; Postsecondary Institutions; CVTE liaisons	09-30-15
5P1	Disaggregated Categories of Students Male: 12.99% Asian: 21.65% Native American/Pacific Islander: 20% White: 19.84% Unknown: 17.52% Individuals w/Disabilities (ADA): 21.63% Limited English Proficient: 19.8% Tech Prep: 22.02%	Work on nontraditional by gender recruitment strategies with local Career Centers and encouraging postsecondary institutions to use counseling and recruitment of outside speakers who are already in nontraditional by gender occupations to encourage students to consider enrolling in and completing these career training opportunities.	Post-secondary Institutions; CVTE liaisons	06-30-15
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82% Unknown: 19.84% Individuals w/Disabilities (ADA): 19.9% Economically Disadvantaged: 20.41 Single Parents: 18.21% Displaced Homemakers: 17.12% Limited English Proficient: 17.35% Tech Prep: 19.46%	Improvement Plans at the local recipient level, including analysis of which factors cause the postsecondary institutions' failure to meet these goals, including: analysis of why discrete student populations did not meet the standard; examination of student recruitment strategies that would encourage students to enroll in nontraditional by gender programs; student support systems that would encourage students to complete these programs.	Postsecondary institutions; CVTE Liaisons.	03-31-15
5P2	Disaggregated Categories of Students: Male: 18.3% Female: 20.24% American Indian/Alaska Native: 12.9% White: 17.82%	Technical assistance through consultants provided by the state and/or funded through local Perkins grants	Gender Equity Team or Contractor; Postsecondary Institutions; CVTE	09-30-15

