

## Maine CONSOLIDATED ANNUAL REPORT 2008-2009

The State Board of Education is the eligible agency which has jurisdiction over Career and Technical Education programs in Maine. It has designated the Career and Technical Education (CTE) Team, a sub-team of the Maine Department of Education PK-Adult team, as the staff for administering the programs under the Perkins IV Act. The CTE team is comprised of a state director of Maine Career and Technical Education, six consultants, two vacant consultant positions, and four support staff. The staff has oversight of the CTE programs statewide and reviews local applications and performance reports, including those from the Maine Community College System (MCCS). They also provide technical assistance to the field and each professional staff member acts as a liaison to three or four of the local secondary CTE schools. The CTE Team works with the broader PK-Adult Team which is made up of academic consultants and others that provide assistance to high schools with regard to their academic standards.

Postsecondary programs operate under the aegis of MCCS's Center for Career Development. MCCS is the eligible recipient for postsecondary Perkins funds.

Career and Technical Education is available to all secondary students in Maine through a statewide network of twenty-seven CTE centers and regions. The major difference between the centers and regions is their governance. The local school board governs the CTE centers while a cooperative board comprised of superintendents and school board members from the sending districts governs the regions.

Maine has recently developed a framework which organizes its programs around career clusters. All of the CTE programs are categorized by the Classification of Instructional Program (CIP) codes. The schools offer a variety of Trade and Industry programs in the traditional CTE classroom and community setting. The students receive required academic training in their respective sending schools with some required academic indicators integrated within the CTE setting. There are many articulation/dual enrollment agreements and work experience opportunities for all programs which allow students to receive college credit for part of their high school CTE experience. These can lead to direct entry into the work force, a technical certificate from a community college, or an associate degree.

### Implementation of State Leadership Activities Required Use of Funds:

#### ***1) Conducting an assessment of the vocational and technical education programs funded under Perkins IV;***

##### Secondary

**Comprehensive School Review (CSR):** In order to receive Perkins IV funds, schools must participate in either a NEASC review or CSR. Those schools that choose to be reviewed using the Maine DOE Comprehensive School Review process are required to provide two teachers per year to participate in the review of other CTE schools.

The Maine Department of Education conducts in-depth Comprehensive School Reviews and has developed a self-study and on site review process that reviews schools on a 10-year cycle.

- Decennial review - a comprehensive review with a visiting committee of 9-15 members.
- Two-year follow-up with schools responding in writing to recommendations made by the visiting committee.
- Five year review - on site monitoring review looking at recommendations and looking ahead to the next decennial review

Each school conducts a self-study the year prior to the decennial review. The review typically extends over 4 days with a team of State consultants and representatives from the field visiting the CTE school. The team looks at programs, curriculum (including rigor, academic integration, and postsecondary articulation), instruction, assessment, equipment, facilities, school climate, community involvement, etc. A written report is provided to the school with commendations and recommendations for improvement. Maine's schedule for site reviews is posted on the [www.schoolswork.org](http://www.schoolswork.org) website. Those schools that have elected to be accredited by the New England Association of Schools and Colleges (NEASC) may continue this process with the proviso that a member of the CTE team at MDOE be included as a member of the visiting committee and a copy of the final report be sent to the MDOE.

**Local Plan:** Each year there is an in-depth review of each local plan, including a financial review, before any money is allocated. The local plans must meet all elements of a checklist that have been developed for plan reviews. In addition, an annual desk audit is required. Maine has a web-based application and reporting system for the local education agencies for the submission of local plans and the website is structured so that progress reports are linked to the local plan's proposed expenditure of funds. Maine Department of Education requires that each school develop a program evaluation tool to review all CTE programs within the local school on an annual basis.

**Program Proposal Review:** All new secondary CTE program proposals must go through an intensive program review process and approval prior to implementation. Programs must meet the elements of Maine Department of Education Regulation 232, Standard Criteria for Maine Secondary Vocational Education Programs, before they are approved. This document is being revised in 2009-2010.

**Review by Program Advisory Committees:** Each program within a school must have a Program Advisory Committee (PAC). With the development of the Perkins IV State plan, Maine now requires the following of its Program Advisory Committees: meet at least annually; membership must include teachers, business and industry partners, secondary and postsecondary constituents, students and other interested stakeholders; review current curriculum, suggest and approve changes to curriculum and course offerings and provide feedback on the successes or failures of each program; review current program assessments to ensure that the technical skills required for the program are assessed and have a third party endorsement; conduct a comprehensive examination of the standards guiding the programs and the assessments to be used to determine technical skill attainment (national skills standards, state standards, or locally developed standards); and develop or review a plan to move the program to nationally recognized technical skills standards and assessments where they exist or state certifications/licensure.

#### Postsecondary – M CCS

As required by the M CCS Board of Trustees, each M CCS program must be reviewed by the Trustees every five years. In addition, an assessment tool was developed by the Academic Deans to be used consistently each year by the program's Advisory Committees across all programs and all colleges as they conduct their annual reviews.

### ***2) Developing, improving, or expanding the use of technology in career and technical education;*** **Secondary**

Each of the secondary programs is required to have a program advisory committee. These committees annually review the technology and equipment needs for each program. Locals also use Perkins funds for acquiring and updating technology and equipment. In FY 09, 28% of all Perkins dollars sent to the locals was used to upgrade or purchase new technology and equipment. Each school is required to participate in a school wide review using either NEASC or the state review process. An important component in these reviews is verifying that the equipment and technology needs of the program are current. Local Maine businesses generously provide some of the equipment and technology for our programs. Several of the programs are using the National Standard for their skill area and must adhere to the required equipment and technology for program certification. Programs are allowed to use Perkins dollars to keep their programs certification ready. The federal equipment guidelines are adhered to as a condition for Perkins funding. Maine is currently in the process of developing a new state subsidy process for CTE; equipment costs and national program certification costs are being considered in the funding formula.

#### Postsecondary – M CCS

Each program of the M CCS is reviewed annually by its Program Advisory Committee to assure that current technology is being utilized. Perkins, State and local funds are used to update programs to keep technology current. During the 2008 – 2009 academic year, Perkins funds were used for technology updates in the following programs at various M CCS colleges: Architectural and Engineering Design Program; Auto Collision Program; Building and Construction Program; Communications Technology Program; Computer Aided Drafting and Design Program; Computer Integrated Machining Program; Construction and Maintenance Program; Culinary Arts Program; Diesel Truck and Heavy Equipment Program; Digital Media Technology Program; Graphic Arts and Printing Program; Heating Technology Program; Machine Tool Program; Medical Assisting Program; Nursing Program; Refrigeration, Air Conditioning and Heating Program; and Sonography Program.

***3) Offering professional development programs, 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***  
Secondary

The state directors' organization, Maine Administrators of Career and Technical Education (MACTE), assisted by the CTE Team in MDOE, hosts tech updates twice a year so that teachers have the opportunity to collaborate, discuss alignment of curriculum with industry recognized standards and credentials, and remain current in their fields. Most teachers have implemented the components of national standards that are appropriate for high school students. However, this has not been systemic and now the state, MACTE and CTE teachers are working on identifying national standards in each CTE content area to bring uniformity to the standards that are taught.

There has been ongoing professional development in the use of literacy strategies in the content areas. MACTE and the Maine Department of Education offered continued training during the 2008-2009 school-years. MACTE contracted with PCG-CRM to offer a continuation of the training offered in Literacy Strategies for any teacher who has participated in previous training and professional development. The four (4) days of literacy professional development were offered in Bangor, ME. The individual center teams included: any CTE mentor and/or CTE Literacy Institute participant in the 2006–08 workshops; instructor/staff person responsible for or interested in center-wide literacy implementation; and instructor/staff person to lead the technology-based aspect of the center's literacy work.

Workshop content was directly aligned to the Framework for 21st Century Learning which emphasizes strategies that support students' literacy development and readiness for the workplace:

- Wednesday October 29, 2008 -Day 1: Learning and innovation skills—critical analysis/evaluation and creative thinking strategies.
- Friday December 12, 2008 (snow makeup Friday January 9, 2009) -Day 2: Information, media, and technology skills—online reading and writing strategies.
- Monday February 9, 2009 (snow makeup Monday February 23, 2009)-Day 3: Life and career skills—understanding 21st century workplace skills and workplace communication and teaming strategies.
- Tuesday April 7, 2009 (snow makeup Tuesday April 28, 2009)-Day 4: 21st century themes—introduction to financial, global, and civic literacy strategies.

Participants received strategy-sharing protocols and templates for sharing of teacher and student literacy work across CTE centers, potentially through a statewide technology link such as the Notebook feature of the Maine Learning Technology Initiative (MLTI).

The literacy activity and models/promising practices are posted on the CTE web site, [www.schoolswork.org](http://www.schoolswork.org) so that schools that have not been working on these initiatives will have another source of “how to” information.

In the spring of 2007, the University of Southern Maine announced that it would be closing its teacher preparation program for Career and Technical Education. Early in 2008, the MDOE CTE staff and MACTE began discussions with Husson College (now Husson University), a private college, around the need to offer teacher preparation and opportunities for a baccalaureate degree. Those discussions have led to a rigorous teacher training program offered in several sites and online to accommodate teachers. The FY09 courses offered were as follows:

- Curriculum-based Instruction for the CTE Classroom and Shop (Husson ED 380)
- Special Education for the CTE Classroom and Shop (Husson ED 318)
- CTE Assessment (Husson ED 411)
- Emerging Trends in CTE (Husson ED 352)

**Summer 09:** Special Education for the CTE Classroom and Shop (Husson 318)

**Fall 09**

- E-Portfolio Development:
- Emerging Trends in CTE (Husson ED 352)
- OSHA Safety Certification
- Classroom Design and Management
- CTE Assessment (Husson ED 411)

### CTE Teacher Prep Core

CTE Teaching and Learning Core Goal: To improve teaching and learning in CTE classes and shops throughout the State of Maine and beyond through development of a teacher training model. This will be accomplished through collaborative development of a set of high quality multi-model delivery of courses that have a deliberate design, connected language and reinforcing messages, a focus on research based literacy instructional approaches, and high quality video and other materials.

**\*CTE Teaching and Learning:** A survey course providing a project based introduction to literacy support strategies, principles of instruction, assessment and standards-based curriculum, and basic classroom management.

- **\*Special Education for the CTE Classroom and Shop:** Special education student needs; focus on specific issues for differentiating instruction and supporting special needs students in CTE programs (ED 318)
- **\*Classroom Design and Management:** Safety, maximizing use of physical space for learning; skilled management of materials and resources
- **\*CTE Assessment:** Formative, summative and diagnostic assessment; good test design; certification tests; reading and math assessments; using assessment data to inform instruction; assessing program quality; use of rubrics; performance assessments (ED 411)
- **\*OSHA Safety Certification:** Will include an application project and OSHA 501 certification
- **\*Curriculum-based Instruction for the CTE Classroom and Shop:** Developing and implementing curriculum aligned with state and national standards. (ED 380)
- **Literacy Instruction:** Analyzing and Addressing the Literacy Demands of Each CTE Program Area; differentiation; planning for literacy rich learning experiences; scaffolding the reading and learning process; vocabulary development strategies; engagement strategies; working with the struggling reader and writer in the CTE classroom
- **Research-Based Instruction for the CTE Classroom and Shop:** Brain-based learning, strategies to develop student skills as readers, writers, and thinkers, Quadrant D lesson planning, gradual release of responsibility model; questioning techniques
- **Emerging Trends in CTE:** Participants will discuss and research the latest and most successful educational developments in National and Maine CTE. Topics and assignments will be based on recent events in national certification, national employment trends, etc.
- **E- Portfolio**

### Secondary CTE Professional Development in Maine

August 2008	CTE Pre-service Boot Camp for New Teachers (1 week) UTC Bangor, Maine (sponsored by MACTE)
08/27/2008	International Center for Leadership in Education Workshop, Bill Daggett, Augusta
09/4-5/2008	State Assessment Workshop, Maple Hill Farms, Hallowell
10/10/2008	MACTE State-wide CTE Conference and Technical Updates, Lewiston
10/29/2008	CTE Literacy Strategies Workshop, Bangor
11/13/2008	Standards-Based Education/RISC Introduction, Portland
Dec. 08-June 09	Maine Course Pathways Pilot rollout and work with 7 high schools and 2 CTE schools – Spring 2009 training in NC, KY, & NH
01/30/2009	Maine Course Pathways Training, Bangor
Jan.-May, 2009	CTE Teacher Education Core Courses, Husson University, Bangor
02/17/2009	Standards-Based/RISC Training Continued, Augusta
02/24-27/2009	Standards-Based/RISC Training Continued, Lewiston
03/13/2009	Michael Brustein Webinar, Augusta (Webinar regarding the ARRA)
03/17/2009	Presentation regarding CTE national industry standards, third party technical assessments, and industry-recognized credentials, Houlton, Region 2
03/24-26/2009	Standards-Based/RISC Training Continued, Lewiston
04/07/2009	CTE Literacy Strategies Workshop, Bangor
05/12-14/2009	Standards-Based/RISC Training Continued-RISC
05/13/2009	Presentation regarding CTE national industry standards, third party technical assessments, and industry-recognized credentials. Region III,
05/ 27/2009	Scoring Guide Development Training-Marzano Research Lab, Thomas College, Waterville (4 CTE programs)

### Postsecondary - MCCS

Assuring that the MCCS CTE faculty and staff are provided comprehensive professional development is essential for continued student success. During the 2008 – 2009 academic year MCCS college CTE faculty and/or staff attended Technical Workshops relevant to their instruction area including, but was not limited to (activities vary by college): ACTE Conference; Best Practices in Teaching Workshops; Computer technology Computer Forensics Lab Technology conference; Degree Advancement Courses; Distance Education training; EnCase Computer Forensics Training Conference; Heating Technology Convention; Jenzabar Student Information System training; Microsoft Certification for the VISTA operating system; National Training on Electrical Code; Pain Management Conference; SimMan Patient Simulator workshops; and Special Populations assistance training

***4) Providing support for career and technical education programs that improve the academic and career and technical skills of students through the integration of academics with career and technical education;***  
Secondary

**Career and Technical Education Mentor Training:** MDOE CTE staff and MACTE continued to provide opportunities for teachers to learn about literacy strategies through the highly-successful CTE Literacy Mentor Network which is supported by consultants from Public Consulting Group's (PCG's) Center for Resource Management (CRM). Mentors were trained in content area literacy strategies, developed examples related to their specific CTE areas, and practiced co-facilitating professional development with colleagues using literacy workshop facilitation guides. The outcome has been a network of literacy mentors who are teaching other teachers how to use before/during/after reading, writing, and vocabulary development strategies within their CTE classes and have developed additional CTE examples of applications for the CTE literacy facilitation guide.

**Promising Practices Statewide initiative:** Maine CTE schools were invited to participate in an initiative to identify, support, and disseminate information about promising programs and approaches that improve literacy, rigor and relevance in CTE courses. These promising practices continue to be documented and made available on the [www.schoolswork.org](http://www.schoolswork.org) website.

**Numeracy:** Maine DOE investigated opportunities for teacher training to strengthen numeracy as part of the PK-12 curriculum. The decision was made in late spring 2008 that a team of teachers would be trained in Math-in-CTE initiative. Two high school math teachers and three CTE teachers, one administrator attended training in 08-09. Five high school math teachers and five teachers from partner CTE schools attended the training together in the fall of the 2009-2010 school year. Maine also had two CTE directors, one high school principal, and one CTE curriculum leader attend the trainings in fall 09. The group from 08-09 and the group from fall 09 is planning to meet periodically during the 09-10 school year and plan summer work with neighboring New Hampshire for teachers statewide Maine and New Hampshire.

Additional activities include applied academic instructors within CTE schools, PLATO, joint teaching efforts in science and math, numeracy conference attendance and exploration, and Maine Learning Results crosswalks.

In the 2007-2008 year six Maine CTE schools received grant funding from the Maine Title II B funds. This grant was designed to partner higher education, high need LEAs and CTE schools. Currently six CTE schools are funded through 4 partnership grants. In 08-09 the number of CTE schools more than doubled. Additional funding will be made available over the next year.

**Postsecondary - MCCS**

The colleges of the MCCS incorporate academics into all CTE Associate Degrees. The academics taught to CTE students are the same rigorous requirements of all Academic Degrees. Based on MCCS System Policy and NEASC academic standards, all programs require a strong general education (academic) core. [Per MCCS policy all Associate in Applied Science degrees must have a minimum of 20-21 credit hours (approximately 1/3 of a program) in the general education/academic core areas and all Associate in Science degrees must have a minimum of 30 credit hours (approximately 1/2 of a program) in general education/core areas.] The liberal arts/general education faculty meet regularly with career and technical faculty to assess whether the students' general education needs are being met. All matriculated students are advised from admissions through graduation to ensure they have the basic skill necessary to be successful in all of their courses. Strengthening of core academic areas and student learning through an organized inventory of assessments assures that all graduates, regardless of program, demonstrate the characteristics of an educated citizen.

***5) Providing 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, except that one-day or short-term workshops or conferences are not allowable;***  
Secondary

The goal of education for high skill, high wage and high demand occupations through non-traditional programming is a high priority in the State of Maine and for our CTE centers and regions. Through an interactive process of reviewing the Non-Traditional Section of Perkins Grant Application, the CTE Team is

able to project and map out the needs of the center and regions. This information informs our technical assistance efforts for schools in the areas of: (1) Regional technology and trades workshops and follow-up activities for prospective non-traditional students, and (2) Recruitment and retention workshops for centers, regions and school districts.

Maine CTE has also continued to encourage the development of Exploratory Learning Programs for its 9<sup>th</sup> and 10<sup>th</sup> grade population which provides an excellent opportunity for students to sample many different non-traditional pursuits.

Since the inception of the Perkins Act, Maine has funded and retained (even though now not required) its gender equity coordinator. This position, the Special Populations Coordinator, also serves as the team leader for the Methods of Administration On-Site Review described above, which is one of the tools used to foster gender equity in Maine schools. The position is also responsible for Transition Planning from secondary school and exploratory learning.

#### Postsecondary - MCCS

The MCCS colleges offer gender equity programs to support nontraditional training and employment; to heighten students' awareness of the occupational opportunities existing for both men and women in nontraditional areas; and to provide the support services necessary for students to continue their education. This group of special populations is essential to Maine's economy as encouraging women to enter nontraditional occupations that are high skilled, high wage or high demand is extremely important. Both Perkins and other funds are used to provide opportunity awareness to nontraditional occupations. The MCCS colleges in partnership with Women, Work and Community; Women Unlimited; MDOL; Maine Adult Education; and local and regional business and industry, encourage students to enroll in nontraditional occupation programs.

During the 2008 - 2009 academic year 20.21% of Participants were enrolled in programs nontraditional for their gender and 14.22% of Graduates graduated from programs nontraditional for their gender. Although we did not meet the total 18% goal for Nontraditional Graduates set for us by OVAE, our Nontraditional Graduation Rate for females was 22.66% (exceeding the 18% goal). As the occupations considered nontraditional for women tend to be high skill, high wage and high demand, Maine has focused nontraditional efforts on women. Male nontraditional programs are generally lower wage and it is difficult to encourage men to enter these professions in today's economy. Our reporting reflects the nontraditional occupational programs issued by the NAPE nontraditional crosswalk. As Maine is a State with ingrained occupational traditions and limited resources, it is difficult to break through occupational gender barriers. Some of the activities provided for nontraditional students included (activities vary by college): "Totally Trades" / "Totally Tools / Careers for the 21<sup>st</sup> Century" conferences to introduce students to nontraditional occupations and programs; a "Woman's Resource Center" in a college library with gender equity materials; campus displays on nontraditional programs; gender equity brochures and posters; Maine Tradeswomen's Conference participation; Nontraditional College Program tours for high school students; one-on-one meetings with the college Gender Equity coordinator; outreach activities in conjunction with area agencies to introduce potential students to the benefits of high-skill, high-wage occupational training and employment; professional development workshops to enhance faculty sensitivity to issues of gender bias; Women in Technology groups to provide mentors to incoming students; and a support network that enables students to persist and complete degree requirements.

***6) Supporting 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, or complete career and technical programs of study;***

#### Secondary

Each of the secondary and postsecondary CTE programs has program advisory committees (PACs) made up of parents, teachers, administrators and business and industry partners. These PACs meet at least once annually (with a suggestion to meet once a semester) to review current curriculum, suggest and approve changes to curriculum and course offerings and provide feedback on the success or failures of each program. Each CTE school is required, as a condition of Perkins funding, to make students aware of Pre-apprenticeship

opportunities and to have contact with the MDOL Pre-apprenticeship program representative each school year. Each Approved Perkins grantee was required to have one CTE Program of Study (CTE POS) in place by July 1, 2008. These agreements needed to include the academics required to participate in CTE and to graduate, ready for the CTE program requirements and the course(s) at the postsecondary level that the program aligned with. This CTE POS requirement generated greater communication between the sending academic high schools, the secondary CTE schools and the postsecondary institutions. Each agreement was signed by all three parties. Many partnerships were formed and now many schools have several CTE POS with their academic and postsecondary affiliates.

### **Status of the Programs of Study in the State of Maine**

In the State of Maine there are 26 Regions or Centers which offer Career and Technical Education programs at the secondary level. There is one additional school district that offers a small number of CTE programs in the far northeast of the State. These Programs of Study delineate a seamless link between secondary academics, CTE programs and post-secondary pathways at the community college level. The following is a breakdown of the types of CTE programs that are represented in the submitted Programs of Study: Automotive Technology, Early Childhood Education, Electrical Technology, Machine Tool Technology, Accounting Systems Technology, Building Construction Technology, Business Administration, Culinary Arts, Computer Electronics, Computer Technology, Health Occupations.

### **Postsecondary - MCCS**

The colleges of the MCCS work closely with internal and external partners to ensure students meet all requirements of CTE program completion. Some of the activities funded through Perkins to assure student success include, but are not limited to (activities vary by college): academic advising; academic assistance; advising centers; and an automated advising/registration process; and career and transfer counseling; child care and transportation assistance; collaboration with Maine Department of Labor to provide apprenticeship opportunities. (During the 2008-2009 academic year the MCCS had 594 apprentices with MDOL.); examination of admissions and prerequisite requirements to insure proper placement of students in initial classes; financial aid advising and planning; first-year experience program; mid-semester warning systems; and student progress monitoring.

As a requirement of Perkins funding each Postsecondary CTE school must have contact with the MDOL apprenticeship program representative each school year and also have one CTE POS in place.

### ***7) Serving individuals in state institutions;***

#### **Secondary**

Maine continued to utilize 1% (\$62,355) of the Perkins State Leadership funds for State Correctional institutions. The funds were used to support the development of CTE programs of study at Maine's correctional facilities for youth. The Mountain View Youth Development Center has started an Advanced Employment Preparation Program. A Juvenile Program worker was hired to work with the program manager and JMG specialist. Core workplace ethics, foundational CTE skills and hands on CTE training in Facilities Maintenance and vocational interest areas relative to Building Trades and Small Engine Repair. Certificates of Completion are awarded upon successful completion of the program.

### ***8) Providing support for programs for special populations that lead to high skill, high wage and high demand occupations;***

#### **Secondary**

Education for high skill, high wage and high demand occupations for special population students continues to be the major thrust of Maine's CTE Centers and Regions. The Maine DOE CTE Team has helped foster this development through a series of initiatives:

- Providing review, information, assistance and compliance through the State Departments' Comprehensive School Review and the Methods of Administration On-Site Review that is performed as a collaborative process with the centers and regions on a periodic basis. This effort is supplemented further by the integration of the Special Populations Section of the Perkins Application and by reviewing and consulting with the schools in goal setting, best practices and accommodations.

- The development of relationships with the Maine Transition Network that provide program assistance in the areas of career planning through the transition section of the Individual Education Plan and job skill development with community agencies and employers.
- Providing targeted work to assist technical centers and sending high schools to address the need for a more timely and comprehensive enrollment and planning process for the student with special needs.

#### Postsecondary – MCCS

Each college of the MCCS works with their Special Populations to assure all students are treated equally to successfully complete programs that lead to high skill, high wage and high demand occupations. To achieve this, members of special populations are encouraged to serve on student committees and are provided adequate support and accommodations to ensure program success at the colleges and throughout the System.

This reporting year, the MCCS has once again supported the efforts of those students identified as at risk or having any special needs by offering: assistive technologies; career and placement services; childcare and transportation vouchers; educational and career counseling; English as a Second Language courses; faculty and staff training; instructional software; interpreters; smaller-sized, basic skills courses; TRIO programs; tutors and study labs; and Women in Technology programs.

Self-identification continues to be encouraged through distribution of informational brochures and extensive orientation activities and workshops. The colleges also coordinate through liaisons with sending agencies and schools, including Career and Technical Regions and Centers, high school guidance offices, Vocational Rehabilitation, Workforce Development, the Department of Human Services and the Veterans Administration. During the 2008 – 2009 academic year 2,399 of the 6,304 (38%) CTE Participant students and 2,312 of the 5,469 (42%) CTE concentrator students self identified as special population students, in one or more categories, based on the definitions of Perkins IV. The majority of these students were economically disadvantaged. All identified students received services. (unduplicated student counts)

#### ***9) Offering technical assistance for eligible recipients.***

##### Secondary

The Maine DOE provides technical assistance to eligible recipients in a variety of ways. Each consultant is assigned as liaison to three-four CTE schools and attends program advisory meetings as requested; attends region/center advisory meetings as requested; provides assistance as schools develop their local plan; provides guidance and assistance as schools and programs align with national standards; provides guidance and assistance as schools develop new programs; provides guidance and assistance as schools prepare for their Comprehensive School Review; and reviews local plans and assisting schools in appropriate changes/modifications

Technical assistance was also provided to the schools in the form of face-to-face guidance in the development of the local Perkins IV applications. The CTE consultants meet monthly with the directors to provide direction and guidance on the work in schools. In addition, each liaison is familiar with the school and its needs as the local online grant application is completed and reviewed at mid-year and at year end.

##### Postsecondary - MCCS

The System Office of the MCCS, in collaboration with MDOE, provides technical assistance to the MCCS colleges in all areas of the Perkins grant. The Perkins Grant and Progress Reports are entered into an online grant system. The System Office also collects student level data from the MCCS colleges and the Perkins Grant Administrator provides all required support to assure valid and reliable data collection. During the 2008 - 2009 academic year the online grant system was updated and the process to improve data quality of the MCCS CARS data continued.

#### Implementation of State Leadership Activities *Permissive Uses of Funds:*

- ***Improving career guidance and academic counseling programs;***

##### Secondary

All Maine high school students have access to a guidance counselor for career and academic counseling at their home school. The CTE directors and student services/guidance personnel have frequent contact with these people. Many sending guidance staff meet as members of the CTE center/region advisory committee.



The CTE Essential Programs and Service (EPS) funding formula due to be implemented in the future includes the allocation of funds for one guidance counselor/student services coordinator per 250 students. With eighteen of our twenty-seven schools enrolling more than 250 this means these schools will receive a State allocation for guidance/student services.

### Postsecondary – MCCS

Students receive regular and ongoing academic and career-related advising from faculty members in their programs.

- *Establishing agreements, including articulation agreements, between secondary school and postsecondary career and technical education programs to provide postsecondary education and training opportunities for students;*

### Secondary

The secondary CTE centers/regions and Community College campuses are jointly responsible for developing and executing Articulation Agreements. Secondary and postsecondary faculties are partnering to identify competencies a student will need to successfully transition into the professional/technical program(s) being articulated. Secondary and postsecondary faculties will agree upon competencies to be examined for the courses to be articulated. They will jointly develop an Articulation Agreement listing the student requirements needed to achieve the articulated credits. Maine has three types of articulation agreements, CTE Programs of Study (POS), Articulation agreements, dual and escrow and enhanced articulation agreements. The schools are required to have one POS, a percentage of their programs articulated and 3 enhanced articulations during the 5 year grant period.

% OF PROGRAMS THAT MUST BE ARTICULATED	IMPLEMENTATION DATE
10%	July 1, 2009
20%	July 1, 2010
30%	July 1, 2011
40%	July 1, 2012
50%	July 1, 2013

### **Enhanced Articulation in the State of Maine**

In the State of Maine there are 26 Regions or Centers which offer Career and Technical Education programs at the secondary level. There is one additional school district that offers a small number of CTE programs in the far northeast of the State. Of these 27 CTE centers, regions, or schools, 21 offer Culinary Arts or Food Service programs. Additionally, five of the seven institutions which comprise the Community College System offer Culinary Arts or Food Service. The Enhanced Articulation Agreement development process, which was completed and formalized in the summer of 2008, provides a clear pathway for students to complete a Culinary Arts certification at the post-secondary level. The linking instructional piece that was agreed to by the participating schools and colleges is the ServSafe certificate which deals with sanitation and the safe handling of foods, etc. Upon the completion of the post-secondary Culinary Arts program, successful candidates will receive escrow credit towards that degree or industry-based standard. As of February 21, 2009, all of the 21 centers with Culinary Arts programs have completed and submitted the Enhanced Articulation Agreement.

The State requires that a contact/position be identified by the individual postsecondary Community Colleges and the individual secondary CTE schools to be responsible for the facilitation, record keeping, and reporting on Articulation, Maine Enhanced Articulation and Program of Study Agreements.

### Postsecondary – MCCS

Articulation between secondary and postsecondary CTE programs is an important part of the Maine Perkins State Plan. To assist in this endeavor each college of the MCCS is required to have a position responsible for creating and renewing college to school articulation agreements and Perkins programs of study. In addition, the Academic Deans of the MCCS continued their work on the three required statewide Enhanced Articulation agreements of the five-year Perkins State Plan. During the 2008 – 2009 the first Enhanced agreement in Culinary Arts was signed. As the State of Maine does not require a State curriculum at either the secondary or postsecondary level, this process is proving to be much more difficult than originally thought. In addition to the three Enhanced Articulations, each college must have college to school articulation for 10% of their CTE programs each year to have 50% by the end of the five-year Perkins State Plan.

- ***Supporting initiatives to facilitate the transition of sub baccalaureate career and technical education students into baccalaureate programs;***

#### Postsecondary – MCCS

The MCCS works closely with the University of Maine System and private four-year colleges in Maine to develop articulation agreements for MCCS programs. Most of these articulation agreements allow our students to enter four-year institutions with a junior (3rd year) academic standing.

- ***Supporting career and technical student organizations;***

#### Secondary

Every secondary CTE school is required to offer students the opportunity to participate in a student leadership organization. Most of our schools participate in the National Career and Technical Student Organizations, FFA, FCCLA, HOSA, DECA, SkillsUSA and FBLA. Several schools offer more than one of these leadership groups to their students. Perkins dollars are used to grant each organization \$2,000 to use for leadership activities. The CTE state consultants also serve as Liaisons to these state chapters and provide technical assistance, leadership training and judging at the state competitions.

#### Postsecondary – MCCS

Currently two of our colleges, SMCC and WCCC, have CTSO programs (Skills USA) for their students. These programs compete in Skills USA competitions for postsecondary programs. SMCC is the only college using a portion of Perkins funding for their Skills USA students.

- ***Supporting career and technical education programs that offer experience in, and understanding of, all aspects of an industry for which students are preparing to enter;***

#### Secondary

Maine secondary and postsecondary schools expose CTE students to all aspects of industry through: business internships; classroom guest speakers from business and industry; clinical or experiential opportunities as part of the CTE programs; continual enhancement of the CTE programs based on advancements in the field; co-op opportunities; engaged advisory committees; and job fairs.

#### Postsecondary – MCCS

The MCCS colleges support this effort through various means at each of the college which include, but are not limited to: clinical rotation for Health Sciences; cooperative work experiences; externships; field experience; field trips to business/industry settings; guest speakers who are active and current in their field; industry specific assignments; integration of industry based certifications and testing; learning experiences that follow and model industry standards and practices; offering of credit internships with area employers; and paid, on-the-job training.

- ***Supporting partnerships between education and business, or business intermediaries, including cooperative education and adjunct faculty arrangements at the secondary and postsecondary levels;***

#### Secondary

##### Secondary Program Advisory Committee

- AC met annually
- Minutes on file for each AC meeting
- Membership(s) includes teachers, business/industry partners, secondary/postsecondary constituents, students and other interested stakeholders
- AC reviewed current curriculum(s)
- Program(s) nationally aligned
- Conduct a comprehensive examination(s) of the standards
- Program(s) created a plan for moving towards national standards and/or a Industry Recognized Credential
- Live Work policies
- On file; Live Work Policies been reviewed/updated; Expiration Date
- Articulation agreements, Enhanced Articulation Agreements and Programs of Study on file

##### Apprenticeship

- Secondary-Expand pre-apprenticeship opportunities
- Develop an Expanded Model program to increase pre-apprenticeship activities between multiple CTE sites.
- Require that each secondary CTE school make students aware of Pre-apprenticeship opportunities
- Require that each CTE school have contact with MDOL Pre-apprenticeship program representative each school year

### Industry Collaboration

- CTE is an active member of the Youth Transition Committee, which is part of the “Jobs for Maine’s Graduates
- CTE is active member in the Youth Council for the Tri-County area of Maine
- CTE is actively engaged developing new programs of interest
- Wind Energy/Wind Turbine Repair Technology
- Labor study is being conducted with the Department of Labor for areas around CTE Centers, the 4 main regions of Maine and statewide as a whole.
- CTE is engaged in creating a tasks/duties matrix between occupations
- CTE is lead department in expanding OSHA training for CTE instructors
- CTE is engaged in providing LEAN (Green approach) to manufacturing
- CTE is actively engaged in STEM partnerships within the CTE framework
- Future occupations to be explored: Biomass, Alternative Energy, Green Technologies, and traditional careers becoming more Green
- Collaboration connection for Maine’s Alternative Energy stakeholders, manufacturing and industry members to aid in the creation of national industry recognized assessments, standards and employment opportunities.

Maine currently has 32 secondary cooperative education CTE programs and satellite programs. Cooperative Education instructors are kept up-to-date on local labor laws and submit job training plans for each of their students. Job training plan submission, reviewed by Maine Department of Labor, as well as Maine Department of Education, helps ensure compliance with labor laws and inclusion of educational progress and goals at student work assignments. Recent accomplishments have included the development of a uniform training plan format for all programs as well as progress toward a revised introduction to the current statewide standards, summarizing purpose and components of program. Efforts are underway to strengthen teacher training through collaboration with Husson College, and to provide a certificate of state recognized work skill attainment for students.

### Postsecondary

As a requirement of Perkins funding each Postsecondary CTE school must have contact with MDOL apprenticeship program representative each school year and also have one CTE POS in place. Adjunct faculty arrangements with the secondary schools are in place for most dual credit articulations.

### Postsecondary collaboration

Local grantees will develop procedures to ensure coordination and non-duplication among programs: programs of study; local workforce boards; other state and federal agencies; and required collaboration with WIA.

The individual colleges continue to work with WIA to increase the employability of Maine’s citizens through higher education. WIA offices in Maine provide support to students attending MCCS colleges and they maintain a supply of updated MCCS information to make them available to their clients. Maine’s WIA annual report for 05-06 stated, “To assure that the needs of industry are met and students properly trained, plans include having faculty from both business and the educational system collaborating to teach needed skills. This effort will involve collaboration with the University, the Community College system, the Career Centers, and secondary schools.” The colleges of the MCCS coordinate with WIA through: college administrators sit on local WIA boards; WIA member(s) sit on local college boards; local colleges work with WIA when major layoffs occur in the area to craft solutions for laid-off workers; and college administrators stay informed about emerging industries and the need to increase training capacity and seeks to respond to these issues.

- ***Supporting the improvement or development of new career and technical education courses and initiatives, including career clusters, career academies, and distance education;***

### Secondary

New programs: In the spring of 2008 ten of the twenty-seven Maine CTE schools submitted a total of fourteen proposals for new programs. In the spring of 2009 proposals for an additional 7 programs were received. The proposals included several STEM related programs. In making the proposal to add a new program schools were asked to indicate what national standards they aligned the curriculum with. In addition they were asked what post secondary seamless transition would be in place in the form of articulation and/or dual enrollment agreements. Schools provided labor market statistics and were encouraged to consider new and emerging technologies.

Exploratory Programs: In the spring of 2008 two Maine secondary CTE schools submitted proposals for new exploratory CTE programs. In the spring of 2009 and two additional schools submitted proposals for exploratory programs. An exploratory CTE program is a CTE program that offers a student the opportunity to explore at least four programs at the CTE region/center. The exploratory program is a component of a sequence of courses of the related specific CTE programs that are offered for exploration. These programs are typically offered for students in grades 9 and 10 in preparation for entry into a full CTE program at grade 11.

#### Postsecondary – MCCS

The colleges of the MCCS are always looking for ways to improve and expand CTE program courses in order to reach more students. Many colleges are looking to distance education to support students in rural Maine. During the 2008 – 2009 academic year Perkins funds were used to purchase Polycom units to allow CTE program courses to be offered at off-site centers.

- ***Developing valid and reliable assessments of technical skills;***

#### Secondary

Some but not all of Maine’s secondary and postsecondary CTE programs are aligned with nationally recognized skills standards. Should the program not have a National or third party technical skill assessment the students who complete at least 80% of the standards guiding the State approved program and leave secondary education during the reporting year will be reported to the Maine Department of Education on the state’s student data base.

The data from the national or third party technical skill assessment is reported to the Maine Department of Education by each school on the state’s student data base in the summer after the students leave the program in the reporting year.

Student opportunities for the demonstration of CTE technical skill attainment will be evaluated through the CTE program approval process, Maine’s Comprehensive School Review process for career and technical programs, and the local Program Advisory Committee program review. These programs have been discussed in “Required Use of Funds”, pages 1 through 9.

#### Postsecondary – MCCS

The colleges of the MCCS continued the Skill Assessments and Standards work that began with Perkins IV. Over the course of the five-year Perkins State Plan the MCCS will work to confirm existing and/or identify and implement, where available and appropriate, third party skill assessments in its CTE programs. The work to date is detailed below under the Skill Assessment section of the CARS narrative.

- ***Developing or enhancing data systems to collect and analyze data on secondary and postsecondary academic and employment outcomes;***

#### Secondary

The Maine Department of Education has contracted with the National Student Clearinghouse to provide us information on post-secondary education for our students. This data allows us to determine how many of our students have gone on to college, how many transferred to another school, how many graduated, and what their majors were. This will give us an important piece of the information we need for the Placement Indicator.

#### Postsecondary – MCCS

The MCCS Perkins Grant Manager continues to work with the colleges to enhance our data collection capabilities. In addition the colleges are on a two-year cycle to change to a new Student Information System data structure. The MCCS does have a good working relationship with the Maine Department of Labor to allow employment outcomes to be matched.

- ***Improving 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;***

#### Secondary

The Maine Department of Education requires that all new hires for CTE submit a certification application for conditional certification and a resume of work history. They must also register for and be fingerprinted. The superintendent of schools must submit a Conditional Affidavit for conditional teacher certification which is renewed if the following requirements are met:

Year 1 – Take and pass Praxis I Test – Pre-Professional Skills Test (PPST); complete an approved course for “Teaching Exceptional Students in the Regular Classroom”

Year 2 – Take and pass Praxis II Test

Year 3 – Take and pass Principles of Learning and Teaching Test (PLT)

The applicants must also hold a valid Maine certificate or license as required by State law or rule to practice the craft or trade to be taught. Please also refer to question #3 under the “Required Use of Funds” section.

### Postsecondary – MCCS

The colleges of the MCCS actively recruit for career and technical education in a variety of ways: advertisements in newspapers, professional and academic journals, as well as through industry-related relationships and associations. Proportionally few of the instructors in the trade and technical occupations programs entered academia through academic channels. Indeed, most enter, instead, from their positions in business and/or industry. Personnel without an academic background take course in teaching and also receive assistance from their peers. These individuals require a great deal of development in making the transition to becoming educators.

### • *Supporting occupational and employment information resources.*

#### Secondary and Postsecondary

The PAC members keep the teachers and administrators apprised of industry needs. The CTE schools must address local, regional and State economic development needs in their local CTE plans and update them on an annual basis. When a secondary CTE school proposes a new program, it must perform a needs assessment and it must convene a PAC and school advisory committee or a cooperative board to assist with the program development. This is required as part of the State’s program approval process for secondary schools. The MCCS has a similar approval process for all postsecondary new programs.

A member of the Maine Department of Education CTE team is the Commissioner’s designee to the Maine Jobs Council which is Maine’s Workforce Investment Act Board.

Information about Maine’s economic development needs and new and emerging industries is available from the Governor’s Economic Development Strategy which is on the website for Maine’s Department of Economic and Community Development <http://www.econdevmaine.com>. The Maine Department of Labor posts comprehensive labor market information on its website [www.maine.gov/labor](http://www.maine.gov/labor). Both of these websites are easily accessible to the schools.

On an annual basis the Maine Jobs Council, as the State Workforce Investment Board, will review data from the Center for Workforce Research & Information (CWRI)- formerly Labor Market Information (LMI) and generate a targeted list of occupations, thus allowing Competitive Skills Scholarship Program (CSSP) funds to be spent on related training. The Bureau of Employment Services through the CWRI will provide information on High Skill, High Wage jobs in Maine. Maine Department of Labor will make this information available on their website.

Representatives from the Maine Department of Education CTE Team, CTE directors, and postsecondary staff attend and participate in State and national conventions to attain information on current or emerging occupational opportunities.

### Progress in Developing and Implementing Technical Skill Assessments

#### Secondary

Over the past year, MDOE-CTE along with a representative team of the secondary Maine Career and Technical Education Directors have met to determine which national standard each program offered in Maine will align to. The group researched and evaluated the listing of possible standards compiled for last year’s CAR report and based the selection process from that list. Each program throughout the state (per CIP code) will offer the national or state certified standard. In some cases we are allowing programs a choice of 2 standards to better serve the labor differences in the diverse regions of the state. Once completed, the standards were approved in August 2009 by the representative team and continued on to the whole director’s assemblage for the ratification procedure. The table below exhibits the efforts of the technical update workgroups.

<b>Program Title</b>	<b>CIP</b>	<b>National Standard(s)</b>
Agriculture, General	1.0000	Plant Systems & Natural Resource Systems
Agriculture Mechanics	1.0205	Power, Structural, & Technical Systems
Aquaculture	1.0303	Animal Systems
Crop Production	1.0304	Plant Systems
Applied Horticulture	1.0601	Plant Systems
Natural Resources Mgt & Policy	3.0201	Natural Resource Systems
Forest Technology	3.0511	Certified Logging Professional Training Standards
Graphic Communications	10.0301	PrintEd Introduction to Graphic Communications + One Other PrintEd Standard & Adobe Certified Associate Standards
Prepress/DT Publishing	10.0303	PrintEd Introduction to Graphic Communications + One Other PrintEd Standard & Adobe Certified Associate Standards
Graphic, Gen Production	10.0305	PrintEd Introduction to Graphic Communications + One Other PrintEd Standard & Adobe Certified Associate Standards
Info Technology	11.0103	<b>Option 1</b> CompTIA A+ Essentials with required endorsements. <b>Option 2</b> Cisco Certified Entry Networking Technician Standards
Culinary Arts	12.0503	<b>Option 1</b> ACF Secondary & ServSafe <b>Option 2</b> Pro-Start 1, 2 & ServSafe
Food Prep	12.0505	<b>Option 1</b> ACF Secondary & ServSafe <b>Option 2</b> Pro-Start 1, 2 & ServSafe
Composites Manufacturing	14.1801	ACMA Standards
Child Care Provider/Assistant	19.0709	Maine Certified Early Childhood Assistant Standards
Parks, Recreation & Leisure Facilities	31.0301	Whitewater Canoeing Credential & Swiftwater Rescue Credential
Biology Technician	41.0101	<b>Option 1</b> BioLink Standards <b>Option 2</b> Project Lead the Way & Biomedical Sciences Program
Security and Protective Services (EMT/Fire Science Cluster)	43.0000	<b>Option 1</b> Firefighter 1 & 2 <b>Option 2</b> Emergency Medical Technician
Criminal Justice/Police Science	43.0107	MCJA Basic Law & MCJA Law Enforcement Pre-Service
Construction, Gen	46.0000	<b>Option 1</b> NCCER Core, Carpentry I, II <b>Option 2</b> NAHB Residential Construction Academy Skill Standards
Mason/Masonry	46.0101	NCCER Masonry Level 1
Carpentry	46.0201	<b>Option 1</b> NCCER Core, Carpentry I, II <b>Option 2</b> NAHB Residential Construction Academy Skill Standards
Electrician	46.0302	<b>Option 1</b> NCCER Core, Electrical I, II & National Electrical Code (most current version) <b>Option 2</b> NAHB Residential Electrician Skill Standards & National Electrical Code (most current version)
Plumbing Technology/Plumber	46.0503	NCCER Plumbing Level 1 & IAPM Uniform Plumbing Code

Program Title	CIP	National Standard(s)
Electrical Equip Install	47.0101	<b>Option 1</b> NCCER Core, Carpentry I, II <b>Option 2</b> NAHB Residential Construction Academy Skill Standards
Comp Install	47.0104	<b>Option 1</b> CompTIA A+ Essentials with required endorsements. <b>Option 2</b> Cisco Certified Entry Networking Technician Standards
Heavy Equipment Maintenance Technology/Technician	47.0302	NATEF Medium/Heavy Truck Program & Licensed Inspection Technician
Autobody/Collision and Repair Technology/Technician	47.0603	NATEF Painting & Refinishing
Automobile/Automotive Mechanics Technology	47.0604	<b>Option 1</b> NATEF Four Core (Electrical, Engine Performance, Brakes, Suspension & Steering) & Licensed Inspection Technician <b>Option 2</b> NATEF General Service Technician & Licensed Inspection Technician
Marine Maintenance	47.0616	One (1) ABYC Certification Standard
Machine Tool Technology/Machinist	48.0501	NIMS Machining Level 1, Measurement, Materials, & Safety, Planning, Benchwork, & Layout, Manual Milling, Manual Turning with Chucking
Welding Technology/Welder	48.0508	<b>Option 1</b> AWS Limited Base Metal Thickness Plate Test <b>Option 2</b> NCCER Welding, Level 1 & 2
Construction/Heavy Equipment/Earthmoving Equipment	49.0202	NCCER Core, Heavy Equipment Operations Level I
Truck & Bus Driver/Commercial Vehicle Operation	49.0205	PTDI Entry-Level Tractor-Trailer Driver & Maine Commercial Truck License Manual
Visual & Performing Arts	50.0101	National Standards for Arts Education
Commercial & Advertising Art	50.0402	PrintEd Introduction to Graphic Communications + One Other PrintEd Standard & Adobe Certified Associate Standards
Graphic Design	50.0409	PrintEd Introduction to Graphic Communications + One Other PrintEd Standard & Adobe Certified Associate Standards
Health Services, General	51.0000	Maine CNA Standards & Certified Residential Medication Aide & Personal Support Services ( <b>ACCEPTED, additional work required with identifying and adopting a national standard</b> )
Medical Office Assistant/Specialist	51.071	AMT Registered Medical Assistant
Home Health Aide	51.2602	Maine CNA Standards & Certified Residential Medication Aide & Personal Support Services ( <b>ACCEPTED, additional work required with identifying and adopting a national standard</b> )
Sales, Distribution	52.1801	MarkED 2008 Marketing Standards (NRF Customer Service Standards acceptable as a lower-level alternative)
Retailing & Retail Ops	52.1803	MarkED 2008 Marketing Standards (NRF Customer Service Standards acceptable as a lower-level alternative)
Health Unit Coordinator	51.0703	Maine CNA Standards & Certified Residential Medication Aide & Personal Support Services ( <b>ACCEPTED, additional work required with identifying and adopting a national standard</b> )
Nursing Assistant	51.1614	Maine CNA Standards & Certified Residential Medication Aide & Personal Support Services ( <b>ACCEPTED, additional work required with identifying and adopting a national standard</b> )

The remaining 21 programs have narrowed their standards selection process down to one or two options and need further efforts to complete the ratification standards process. This list can be found on our web page at [www.schoolswork.org](http://www.schoolswork.org).

Along with this, MDOE-CTE is reviewing incoming Annual Program Evaluation Tools (APET) for statements of alignment, implementation and/or selection. MDOE-CTE encourages centers/regions to have their tool assist in a supporting effort in creating work plans to ensure each CIP is fully aligned and has an assessment tool selected, per the state Perkins plan. Such tools can also serve to measure and gauge the alignment efforts, per program. MDOE-CTE plans to continue the ratification standards process for the 21 remaining programs.

The ratified Maine Standards List will be presented to the Maine Commissioner of Education for seal of approval. This will complete the standards work besides constant monitoring of programs being fully aligned and the addition of new programs. New programs will identify their standard(s) and assessment tool(s) as part of the updated New Program Submission process.

Over the next year, MDOE-CTE along with a new representative team of the secondary Maine Career and Technical Education Directors and technical update groups will meet to determine which national or state assessment tool each program offered in Maine will align with. Such efforts are currently underway as a result of the October MACTE State meeting. The results for the October discovery analysis were not available by this report's deadline. Once the results are available, a similar ratification process will be employed to compile the assessment tools for Maine.

Maine's new student data system, Infinite Campus (IC), does have the capacity to gather the data on how many students took and passed at least one 3rd party assessment. Unfortunately this system is new and the data is not as accurate as it will be in the future. The data currently shows that of the 3,330 concentrators, 569 took 3rd party assessments (17.1%) and 459 of them passed (81 %.) Problems with IC and who's entering what means that the figures are probably much lower than actual.

Our concentration has been on selecting a national standard per program for all programs state wide. Of the 64 programs we currently offer in Maine 48 of them have selected a national standard. This calculates out to 67% which is a significant increase over the 45% we reported last year.

#### Postsecondary – MCCS

During the 2008-2009 academic year the Academic Deans worked with their faculty and data collection people to collect student level data on more skill assessments. Data was collected in Welding, Respiratory Therapy, Electrical, Refrigeration, Air Conditioning and Heating, Precision Metals Manufacturing, Plumbing, Physical Therapy, Occupational Therapy, Nursing, Radiology, Medical Office Technology, Medical Assisting, Information Technology, Heavy Equipment Operations and Maintenance, Graphic Arts, Paramedicine and Diesel Hydraulic Technology.

In 2008, 1,592 CTE concentrators graduated.

- 769 (48%) were in programs that are known to either offer skill assessments or prepare students for assessments, such as State licensure exams or National Assessments. Many of the End of Program assessments are taken post graduation and we are not able to collect data at the student level in a reliable manner due to privacy laws.
- Six of the seven colleges (representing 1,134 of the graduates or 71%) were able to report student level data in the program areas listed above.
- Of those 1,134, data was collected on skill assessments for 367 graduates (32%) and of those 342 (93%) passed.
- Of the assessments that we collected student level data, 313 took End of Program Assessments and 54 took End of Course Assessments. Only one student took both an End of Program and an End of Course Assessment and that student was counted with the End of Program students to assure an unduplicated student count.
- Note - The largest of the MCCS colleges is going through a data transition to a new student information system platform and was unable to provide student level skill assessment data on 458 of the 1,592 graduates (29%). Of these, 62, 2008 graduates at this college were in programs that reported aggregate level data (Nursing, Paramedicine and Respiratory Therapy) and of those 60 (97%) passed. [Note - These students were not included in our accountability form as we have no way of knowing if the students taking these assessments were part of the 1592 graduate cohort used for the CARS report.]

The MCCS exceeded the CARS measure comparing students who took assessments to students who passed assessments. Our rate was 93.19%, although as more students are assessed and more assessment data becomes available we expect this percentage may decrease.

The MCCS System Office Perkins staff continues to meet with the colleges' Academic Deans to discuss their current timeframes for Skill Attainment/Assessment. Currently we know we are facing a difficulty in collecting post-graduate data (which most end of program assessments consist of) and accessing student level data. As programs are reviewed by their Program Advisory committees they discuss new Skill Assessments that may be appropriate. The MCCS has also been in discussion, in some program areas, with our secondary CTE partners to work toward consistency in Skill Assessment standards.



### Implementation of State Program Improvement Plans

The State of Maine Career and Technical Education failed to meet core indicator 1S1: Attainment of Academic Skills-Reading/Language Arts at the 90% threshold. The adjusted level of performance was set at 30%; the actual level of performance was 25.67%.

The State of Maine Career and Technical Education failed to meet core indicator 1S2: Attainment of Academic Skills-Mathematics at the 90% threshold. The adjusted level of performance was set at 30%; the actual level of performance was 22.05%.

The disaggregated categories of students for which there were quantifiable disparities or gaps in performance in English Language Arts were:

<b>READING</b>	<b>All CTE students who took SAT in Spring 2008</b>	<b>All students who met or exceeded</b>	<b>Percentages</b>
Total	3134	862	27.5%
Female	1249	368	29.5%
Male	1885	494	26.2%
American Indian/Alaskan Native	26	4	15.4%
Asian/Pacific Islander	30	4	13.3%
Black	52	8	15.4%
Hispanic	16	4	25.0%
White	3010	842	28.0%
Special Education	229	37	16.2%
Limited English Proficient	52	1	1.9%
Economically Disadvantaged	1142	256	22.4%
Single Parent	12	4	33.3%

Note: For ESEA, we report only Reading scores, not Reading and Writing.

The disaggregated categories of students for which there were quantifiable disparities or gaps in performance in Math were:

<b>MATH</b>	<b>All CTE students who took SAT in Spring 2008</b>	<b>All students who met or exceeded</b>	<b>Percentages</b>
Total	3182	779	24.5%
Female	1267	284	22.4%
Male	1915	495	25.8%
American Indian/Alaskan Native	26	2	7.7%
Asian/Pacific Islander	32	9	28.1%
Black	59	4	6.8%
Hispanic	16	2	12.5%
White	3049	762	25.0%
Special Ed	238	26	10.9%
Limited English Proficient	58	2	3.4%
Economically Disadvantaged	1170	221	18.9%
Single Parent	13	1	7.7%

All Maine grade 11 students are administered the SAT for ELA and Math (with an augmentation) developed by the College Board. The SAT is described as a “reasoning” test, as distinguished from an “achievement” test. Similarly, the reading section is not so much a test of reading comprehension, as it is a test of students’ critical reading skills. Most of the questions require that students go beyond a simple understanding of the text and make some inferences based on what they have read. They need to recognize that there is an author “behind” the reading passage and be able to assess the author’s point of view.

The students we are reporting on were administered the SAT in their junior year in late spring 2007. This means that our CTE students are tested on Reading/Language Arts and Mathematics before they have

completed even one year of instruction in CTE; students who attend CTE only in their senior year are tested before they ever enter the CTE program. This makes it difficult for the CTE schools to have an impact on the students' reading and math skills.

In Maine individual school systems are responsible for their own improvement plans. As 90% plus of Maine CTE students enter a career and technical education program at the beginning of grade 11 this gives our CTE directors and instructors little time to make an impact on reading/language arts scores.

### **ELA 1S1 Improvement Plan School Year 2008-2009 and plans for 2009-2010**

In summer 2008 Lora Downing worked with Julie Meltzer and Susan Ziemba (consultants from PCG: CRM of Portsmouth, NH). A contract for literacy work in Maine's CTE schools was developed for the 2008-2009 school year.

We will continue our work in literacy with the CTE teachers and directors in 2009 -2010.

- 50 teachers from 19 schools enrolled in the 2008-2009 school year in a four-day series of literacy workshops. The series was designed to deepen understanding of literacy practices in the classroom by aligning them to the 21<sup>st</sup> century learning skills that students need for workplace success.
- The four day series was designed for instructors who had previous Maine Department of Education CTE literacy training will covered the following topics:
  - Learning and Innovation Skills
  - Information, Media, and Technology Skills
  - Life and Career Skills
  - Core Subjects and 21<sup>st</sup> Century Themes
- In addition to the work above CTE and high school teachers in some CTE and partner high schools collaborated on literacy strategies across the curriculum. This was a local effort supported by Maine Department of Education CTE.
- Maine Department of Education CTE and the Maine Administrators of CTE (MACTE) have designed continuing literacy work with PCG: CRM for the 2009-2010 school year. The offerings for the 09-10 year are offered on two levels via video conference. Teachers will receive MDOE contact hours which may be used for certification for their work in literacy strategies.
  - Teachers who have had training will be offered the opportunity to take their learning and application deeper in 7 two hour sessions with Roz Weizer.
  - Teachers new to literacy strategies will work in four sessions with Susan Ziemba.
- The above work will be directed by Lora Downing.

### **Math 1S2 Improvement Plan**

Maine began limited pilot work in 2008-2009 with the National Research Center for Career and Technical Education (NRCCTE) on the Math-In-CTE project. Only 1 CTE school and 1 high school participated. The teachers in two programs in the CTE school and the two high school teachers continued to work over the past school year and two of the teachers (1 CTE and 1 math) attended neighboring New Hampshire's summer training. The teachers have presented at the Maine School Superintendents' Conference, the MACTE conference and in individual schools.

The Maine Department of Education and Maine Administrators of Career and Technical Education (MACTE) agreed in late summer 2009 to become more deeply involved in the NRCCTE work around math. In November 2009 Maine sent 5 CTE teachers from two different schools, 4 math teachers from 3 different high schools, 1 high school principal, 2 CTE directors, the Math-In-CTE lead from MDOE, and the MDOE math consultant to training in Nashville.

The teachers and administrators and MDOE are working with NRCCTE and have planned to work with New Hampshire to offer Math-In-CTE training for 3 program areas in mid July 2010. The State of Vermont has also contacted MDOE expressing interest in this work.

The change in CTE student achievement in both ELA and math will be slow as this takes time to spread and grow. There are no quick fixes to student underachievement in these areas.

### **Postsecondary – MCCS**

The MCCS failed to meet core indicator 5P2: Nontraditional Completion. The goal set was 18% and we reached 14.22%. Maine did, however, reach 22.66% for women in Nontraditional Completion and 33.02% for women in Nontraditional Participation. Both of these exceed the goals set by OVAE and should

be considered a success as programs categorized as nontraditional for females tend to be higher wage than those considered nontraditional for men.

The disaggregated categories of students for which there were quantifiable disparities or gaps in performance were:

<b>Disaggregate</b>	<b>Actual Level of performance</b>	<b>Number of all students in disaggregate</b>
Men	6.55%	611
Asian or Pacific Islander	12.50%	25
White	13.77%	1046
Economically Disadvantaged	13.39%	448

The MCCS will continue to work with ALL nontraditional students, both men and women, to help them succeed through to graduation through:

- Articulation agreements with 4-year institutions that require graduation before transferring to the Baccalaureate institution.
- Developing internships for nontraditional students during their final semester to encourage them to complete their degree before transferring to a 4-year college.
- More flexible lab/class schedules and/or part-time educational options to accommodate students with external obligations.
- More scholarship opportunities.
- More exposure to the programs prior to enrollment to allow students to determine if the nontraditional profession they choose is right for them.
- More mentoring and coaching to help students succeed.
- An improved early warning system to identify students in need of assistance.
- More connections between nontraditional students through both face-to-face meetings and electronic media.
- More exposure of Gender Equity opportunities available on each campus.
- Develop marketing materials that are designed to draw women into trades programs (for example, highlighting a current female student in one of the programs).
- Expand recruitment efforts for nontraditional programs and use nontraditional alumni as speakers.
- Increase the use of student mentors and faculty advising.

The Gender Equity positions at each college will continue to work with students to help them succeed. Nontraditional support is an ongoing effort at all of the colleges so the actions are not new processes, but improved processes that will begin immediately and continue throughout Perkins IV. As noted above women in Maine are entering nontraditional programs and we see that as a success. We cannot direct men towards lower paying careers in this economy when both the students and the colleges are focused on high wage, high skill, high demand occupations.

### **Perkins Grant distribution to Locals**

The State of Maine is using the federally defined formula for secondary Carl D. Perkins distribution and any changes to school district boundaries will be reflected in the required data used-As in each previous program-year, the MCCS used the Perkins IV transition year plan, federally approved funding formula for disbursement of Perkins funds at the postsecondary level. Maine has developed a web-based application and reporting system for the local educational agencies for the submission of local plans and the website is structured so that progress reports are linked to the local plan's proposed expenditure of funds. The online grant system has been changed to reflect the changes in the Perkins legislation. As a final step in the grant administration process for the year, year-end Perkins Project Reports and budget reports were compiled, reviewed for accuracy and approved before new funds were approved.

	FY09 TOTAL CENSUS DATA	CARRY OVER	TOTAL FUNDS CENSUS DATA FY2009
<b><u>SECONDARY FUNDS</u></b>			
<i>Augusta</i>	\$142,972.00	5695	\$148,667.00
<i>Bath</i>	\$69,901.00	2784	\$72,685.00
<i>Biddeford</i>	\$98,345.00	3917	\$102,262.00
<i>Bridgton</i>	\$58,938.00	2348	\$61,286.00
<i>Calais</i>	\$35,806.00	1426	\$37,232.00
<i>Caribou</i>	\$35,006.00	1395	\$36,401.00
<i>VanBuran (Caribou fiscal)</i>	\$9,069.00	361	\$9,430.00
<i>Dexter</i>	\$103,994.00	4142	\$108,136.00
<i>Ellsworth</i>	\$89,862.00	3580	\$93,442.00
<i>Farmington</i>	\$76,731.00	3056	\$79,787.00
<i>Lewiston</i>	\$211,700.00	8431	\$220,131.00
<i>Machias</i>	\$51,190.00	2039	\$53,229.00
<i>Portland</i>	\$225,700.00	8989	\$234,689.00
<i>Presque Isle</i>	\$41,041.00	1635	\$42,676.00
<i>Sanford</i>	\$171,854.00	6845	\$178,699.00
<i>Skowhegan</i>	\$94,727.00	3773	\$98,500.00
<i>St. John Valley</i>	\$26,726.00	1065	\$27,791.00
<i>Waterville</i>	\$122,102.00	4863	\$126,965.00
<i>Westbrook</i>	\$136,373.00	5432	\$141,805.00
<i>Region 2</i>	\$47,864.00	1907	\$49,771.00
<i>Region 3</i>	\$50,624.00	2016	\$52,640.00
<i>Region 4</i>	\$164,690.00	6560	\$171,250.00
<i>Region 7</i>	\$63,782.00	2541	\$66,323.00
<i>Region 8</i>	\$81,885.00	3262	\$85,147.00
<i>Region 9</i>	\$53,355.00	2125	\$55,480.00
<i>Region 10</i>	\$70,745.00	2818	\$73,563.00
<i>Region 11</i>	\$50,079.00	1995	\$52,074.00
<b>TOTAL SECONDARY</b>	<b>\$2,385,061.00</b>	<b>\$95,000.00</b>	<b>\$2,480,061.00</b>
<b><u>POST SECONDARY FUNDS</u></b>			
<i>Maine TC System</i>	\$2,385,061.00	\$95,000.00	\$2,480,061.00
<b>TOTAL TITLE I ©</b>	<b>\$4,770,122.00</b>	<b>\$190,000.00</b>	<b>\$4,960,122.00</b>