

## Maine CONSOLIDATED ANNUAL REPORT 2010-2011

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 (this position is currently vacant) of Maine Career and Technical Education, six consultants, two vacant consultant positions, and three 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 several 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 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:

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

In order to receive Perkins IV funds, schools must participate in either a New England Association of Schools and Colleges (NEASC) or a Maine Department of Education (MDOE) comprehensive school review (CSR). Maine currently has 21 CTE schools participating in the MDOE CSR and only 6 CTE schools that are NEASC accredited. Many schools have dropped the NEASC accreditation due to the cost of membership and the cost of the on-site visits.

MDOE has developed a self-study and site review process that reviews schools on a 10-year cycle:

- Decennial site visit - a comprehensive review of CTE programs and school-wide standards by a visiting team of 9-15 members.
- Five year site visit – a review of the status of recommendations made during the decennial site visit to articulate additional recommendations as preparation for the next decennial review.
- Two year follow up visit on the decennial site visit.

Key components of the Comprehensive School Review process include:

- An orientation of the review process presented to the school by MDOE consultants;
- A school self-study the year prior to the decennial review; and
- A 4-day site visit to the school for the review itself. The visiting team, consisting of MDOE consultants and instructors/administrators from other Maine CTE schools, looks at programs, curriculum (including rigor, academic integration, and post-secondary articulation), instruction, assessment, equipment, facilities, school climate, and community involvement.
- A final written report provided to the school with commendations and recommendations for improvement.

Schools that choose to be reviewed using the MDOE review process are required to provide two teachers per year to participate as members of the visiting team in the review of other CTE schools.

Schools opting for accreditation by NEASC do so with the understanding that an MDOE CTE consultant must be included as a member of the visiting team and that a copy of the final report be submitted 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 has also developed a web-based grant reimbursement system. 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 go through an intensive application review process and approval prior to implementation. Programs must meet the elements of MDOE Regulation 232, Standard Criteria for Maine Secondary Vocational Education Programs, before they are approved. MDOE Regulation Chapter 232 is scheduled to be rewritten and approved by Maine State Legislature in early 2012.

**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 post-secondary 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); review the program using a locally developed common evaluation tool 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 – MCCS:** As required by the MCCS Board of Trustees, each MCCS program must be reviewed 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 10, 29% 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 a 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 developing an Essential Programs and Services (EPS) funding formula for CTE that is yet to be implemented; equipment costs and national program certification costs are considered in the funding formula.

### **Postsecondary – MCCS**

Each program of the MCCS 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 2010 – 2011 academic year, Perkins funds were used for technology updates in the following programs at various MCCS colleges: Culinary Arts; Graphic Communications; Building Construction; Diesel, Truck and Heavy Equipment; Nursing; Electrical and Automation; Welding Pipefitter; Automotive; Refrigeration, Air Conditioning and Heating; Electronics and Computer Technology; Respiratory Therapy; Lineworker Technology; Precision Machine Tool; Electrical Technology; Wind Power Technology; Marine Biology; Cardiovascular Technology; Computer Technology; Integrated Manufacturing; Horticulture; Plumbing and Heating; Electrical Engineering and Engine Specialist.

## ***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 program area updates (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.

Professional Development activities in Maine for Career and Technical educators during 2010 and 2011, for both instructors and administrators, were accomplished via a wide-range of meetings, trainings, institutes, conferences, courses, webinars, and workshops at the Local, State, and National levels. A partial list of these activities is as follows:

### Professional Development: July, 2010-June, 2011

- Access Database training-state and national (multiple)
- Brustein & Manasevit Perkins Federal Compliance Meeting, DOE
- Building Science: Mold
- Council of State School Office State Collaborative on Assessment and Student Standards
- CTE Comprehensive School Reviews and Orientations (5 and 10 year) Region 2, Region 9, PATHS, Mid-Maine
- CTE Data/Infinite Campus Training
- CTE New Instructor Boot Camp, UTC; State-wide Conference (MACTE)
- CTE Team Meetings (monthly) and Team Retreat, Belgrade Lakes
- CTEDDI Jump Start Training
- Data Coach Training and Data Quality Institute
- DECA Conference
- Employers Educational Foundation @ Manufacturers Association
- FFA Student and Instructor State-wide Trainings (multiple); State Convention and National Convention
- Husson University-CTE Teacher Preparation Courses: Emerging Trends in CTE; E-Portfolio for Teachers; Introduction to Effective Classroom Management; CTE Assessment I; Curriculum-based Instruction for the CTE Classroom and Shop; Introduction to CTE Classroom Teaching
- In-State Conferences: Superintendents; Totally Trades; Wind Energy; WorkReady
- In-State Trainings: Math-in-CTE; Safety Officer; SHAPE Program; Test Development
- MACTE Directors Meetings (various sites and Tandberg videoconference) and Technical Updates
- Maine Safety Conference and Safety Works OSHA inspections
- Maine State Board of Education meetings (multiple)
- MDOE Pre K-Adult Team Retreat (also semi-monthly)
- Methods of Administration Reviews; compliance with Federal Civil Rights regs. (multiple)
- National Conferences: ACTE; ASCD; CTECS; NACTEI; NASDCTEc; National Career Clusters Institute,
- OSHA Safety Certification for CTE Instructors, 10 Hour and 30 Hour (multiple)
- Project Lead the Way Summit
- Standards-Based Education trainings (multiple) and Scoring Guide Development (multi-day)
- STEM Conference (multiple)
- Teleconferences: Next Steps Workgroup (monthly)
- Webinars: NASDCTEc, NRCCTE; Perkins Consolidated Annual Report WebEx (multiple)
- Workforce Development Report-CARD Workgroup
- Workshops: CCSSO SCASS (multiple); Civil Rights Compliance (multiple)

#### Postsecondary - MCCS

Assuring that the MCCS CTE faculty and staff are provided comprehensive professional development is essential for continued student success. During the 2010 – 2011 academic year MCCS college CTE faculty and/or staff attended Technical Workshops relevant to their instruction area including, but not limited to (activities vary by college): ACTE Conference; Best Practices in Teaching Workshops; eRaser and Blackboard Training; OSHA Safety; Degree Advancement Courses; Medical Assisting Certification; Wilderness First Response; NEC Code license; NATEF Certification; VTec Certification; CADD Green Design; Mentoring Programs; 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. Teachers who had been previously trained as mentors were provided the opportunity to take their own learning to a deeper level with the goal of embedding the strategies in their day-to-day teaching. 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 continued 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 and decided to proceed in 2010-2011 with the Math-in-CTE program of the National Research Council for Career and Technical Education (NRCCTE). Since 2008, Maine has sent seven math teachers, eight CTE teachers, one high school principal, and three CTE directors to introductory trainings on Math-in-CTE. These participants became the core of the 2010-2011 Maine Math-in-CTE planning committee which evolved by May 2011 to consist of four lead teachers (two co-facilitators and two teacher leaders) to see the program into a second year of implementation for 2011-2012. Maine DOE completed the first year of the program in May 2011, including CTE program areas of Carpentry and Welding/Machine Tool with twenty Maine CTE teachers from fourteen CTE schools, along with their mathematics teacher partners from seventeen Maine high schools, as well as seven Vermont teachers (four mathematics and three CTE teachers), accompanied by their representative from the Vermont Department of Education. For the second year of Math-in-CTE implementation, Maine DOE chose to rely on their four member trained teacher team and one consultant from NRCCTE, addressing CTE program areas of Culinary Arts and Automotive Technology. During this second year, teachers scheduled to participate include thirteen Maine CTE teachers from ten CTE schools, along with their mathematics teacher partners from one Maine middle school, one CTE school, and eight high schools, as well as one CTE/mathematics partner pair from Vermont.

#### Postsecondary - M CCS

The colleges of the M CCS incorporate general education courses into all CTE Associate Degrees. The general education courses taught to CTE students have the same rigorous requirements as the Associate in Arts Degree program. Based on M CCS System Policy and NEASC academic standards, all programs require a strong general education (academic) core. [Per M CCS 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 meets 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 centers 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, (2) Technical assistance through a needs assessment process administered by the State-wide Women, Work and Community organization, to include as-needed program development activities, and (3) 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.

Maine's gender equity coordinator has been funded and retained since the inception of the Perkins Act, even though this is no longer a requirement. 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 for secondary school and exploratory learning.

#### Postsecondary - M CCS

During the 2010 – 2011 academic year the M CCS met the nontraditional measures within 90% of the OVAE goals (20.52% for Participation and 19.74% for Completion). Although males are far below the nontraditional measure levels, the M CCS Nontraditional Participation rate for females was 34.67% (far exceeding the 21.78% goal) and the M CCS Nontraditional Graduation Rate for females was 30.22% (far exceeding the 20.43% 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. Outside of the Allied Health field, male nontraditional programs are generally lower wage and it is difficult to encourage men to enter these professions in today's economy.

The M CCS failed to meet our Nontraditional Completion measure during 2008-2009 and the colleges of the M CCS implemented and/or improved strategies to keep nontraditional students through to graduation. In the two reporting years since the induction of the improvement plan, the M CCS has met our nontraditional goals within 90%.

The strategies put in place for improvement included, but were not limited to, programs to: support nontraditional training and employment; heighten students' awareness of the occupational opportunities existing for both men and women in

nontraditional areas; and provide the support services necessary for students to continue their education. This group of special populations is essential to Maine's economy as encouraging students to enter 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.

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 successes 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. Programs of Study delineate a seamless link between rigorous secondary academics, CTE programs at the Centers and Regions, and post-secondary pathways at the seven Maine community college campuses. The following is a breakdown of the types of CTE programs that are represented in the submitted and approved Programs of Study: Accounting, Automotive Collision Repair, Automotive Technology, Computer Electronics, Computer Technology, Building Construction Technology, Culinary Arts, Business Administration, Digital Graphics, Drafting, Early Childhood Education, Electrical Technology, Emergency Services, Health Occupations, Machine Tool Technology, Medical Careers, Outdoor Resources, Welding. The complete list by Center or Region is as follows:

CTE Center or Region	Program of Study	Community College Partner
Bath RVC	Automotive Technology	CMCC
Biddeford RCT	Automotive Technology	CMCC
	Drafting	YCCC
Capital Area TC	Machine Tool Technology	KVCC
Caribou RATC	Computer Electronics	NMCC
Coastal Washington County IT	Culinary Arts	WCCC
Foster Tech Center	Automotive Technology	CMCC
	Building Construction	CMCC
Hancock County TC	Automotive Technology	CMCC
Lewiston RTC	Automotive Technology	CMCC

	Early Childhood Education	CMCC
Mid-Maine TC	Computer Technology	KVCC
	Electrical Technology	NMCC
	Emergency Services	KVCC
	Precision Machining	CMCC
MSAD 24, Van Buren	Machine Tool Technology	NMCC
	Accounting Information Systems	NMCC
Portland ATHS	Carpentry	SMCC
Presque Isle RTC	Business Technology	NMCC
Region 2, Southern Aroostook	Early Childhood Education	NMCC
Region 3, Northern Penobscot	Computer Electronics	NMCC
	Medical Office Administration	NMCC
Region 4, UTC	Building Construction Technology	EMCC
Region 7, Waldo County	Computer Technology	KVCC
Region 8, Mid-Coast	Automotive Technology	CMCC
	Culinary Arts	CMCC
	Design Technology	CMCC
	Machine Tool Technology	CMCC
	Residential Construction	CMCC
Region 9, Mexico	Automotive Technology	CMCC
	Computer Technology	CMCC
	Machine Tool Technology	CMCC
Region 10, Brunswick	Automotive Technology	SMCC
	Auto Collision	NMCC
	Building Trades	CMCC
	Commercial Art	SMCC
	Early Childhood Education	CMCC
	Food Trades	CMCC
	Health Occupations	SMCC
	Welding	SMCC
Region 11, Oxford Hills	Accounting	CMCC
	Automotive Technology	CMCC
	Building Construction	CMCC
	Computer Technology	CMCC
	Culinary Arts	CMCC
	Early Childhood Education	CMCC
	Graphic Printing and Design	CMCC
	Law Enforcement	CMCC
	Visual Arts	CMCC
Sanford RVC	Computer Technology	YCCC
Somerset RVC	Automotive Technology	CMCC
	Carpentry	CMCC
	Digital Graphic Arts	CMCC
	Electrical	KVCC
	Information Systems Technology	CMCC
	Outdoor Resources	WCCC
St Croix RTC	Automotive Technology	WCCC
	Early Childhood Education	WCCC
	Nursing Assistant	WCCC
St John Valley TC	Early Childhood Education	NMCC
Tri-County TC, Dexter	Health Occupations	CMCC
	Metals Manufacturing	CMCC
Westbrook RVC	Electrical Construction	NMCC

### 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; an automated advising/ registration process; career and transfer counseling; child care and transportation assistance; and collaboration with Maine Department of

Labor to provide apprenticeship opportunities. [During the 2010-2011 academic year the MCCS had over 150 students who were also participants in MDOL's Apprentice Program.] 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. Our data shows that 5,174 of the 6,499 (80%) 2009 CTE Concentrators either graduated or continued their education [3,544 were retained at the same postsecondary institution in 2010; 652 transferred to another postsecondary institution in 2010; and 978 graduated (students who both graduated AND retained or transferred were counted with the retained and transferred and not the graduates, as they were not leavers, to give an unduplicated count); of the 978 graduate leavers, 825 were employed based on a Maine Department of Labor data match.].

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

#### **Secondary**

Maine continued to utilize 1% 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. Teachers focus on safety training and basic vocational skills. No certificates are awarded as students do not complete an entire program in any pre-vocational areas. They do complete specific topics that would be part of a CTE course curriculum in the areas of small engines, building trades and culinary arts. Jobs for Maine's Graduates (JMG), a contracted service here at MVYDC, provides job readiness training for GED recipients and for any high school students who desire assistance upon reintegration. The Perkins funds were used to establish an articulation agreement with UTC for selected students from MVYDC to attend UTC's high school CTE programs and/or Adult Education courses such as welding.

### ***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 important to 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 strong relationships with the Maine Department of Labor-Division of Vocational Rehabilitation and the Maine Department of Special Services (Special Education) has provided 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 partner high schools in addressing the need for a more timely and comprehensive enrollment goal setting and planning for the students 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 2010 – 2011 academic year 4,642 of the 8,760 (53%) CTE Participant students and 4,237 of the 7,882 (54%) 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. (Special population count is unduplicated student count - many students have more than 1 special population status.)

### ***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 assists 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 2010 - 2011 academic year the online grant system and 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. Partner sending school guidance staff often 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: dual, escrow, and enhanced articulation. The schools are required to have a designated percentage of their programs articulated and three enhanced articulations during the 5 year grant period. The State also 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, Enhanced Articulation and Program of Study Agreements.

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

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

During 2010-2011 development work was completed on the second Enhanced Articulation agreement between the participating Centers and Regions and the Maine Community College System. This Electrical Technology Program agreement was proposed by MACTE and finalized in May. Students who complete the basic requirements outlined in the agreement are eligible to receive 3, 5, or 6 escrow credits depending on which Maine community college they attend for completion of the Electrical Technology program.

#### 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 MCCC 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 MCCC continued their work on the three required statewide Enhanced Articulation agreements of the five-year Perkins State Plan. During the 2010 – 2011 academic year an Enhanced Agreement in Electrical Technology was signed. As three enhanced agreements are required by the end of the Perkins IV Act, work will continue on the development of an additional enhanced agreement. The Enhanced agreement process is proving to be much more difficult than originally anticipated due to the fact that CTE curriculums, at both the secondary and postsecondary levels, vary in order to meet the needs of the local community. In addition, 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 – MCCC

The MCCC works closely with the University of Maine System and private four-year colleges in Maine to develop articulation agreements for MCCC 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 provide technical assistance, leadership training and judging at the state competitions. The State Advisors for FCCLA, HOSA, DECA, and FFA met in 2010-2011 to plan a first time joint leadership training for October 2011 (other groups were also invited but not available). Such an effort could result in additional collaboration among students and leaders of these organizations, as well as some cost savings.

#### Postsecondary – MCCC

Currently two of our colleges, SMCC and WCCC, have CTSO programs (SkillsUSA) for their students. These programs compete in SkillsUSA competitions for postsecondary programs. Neither college used 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; job fairs; and pre- apprenticeship opportunities. The MDOE-CTE field tested a mentorship program to help increase more real life opportunities.

#### Postsecondary – MCCC

The MCCC colleges support this effort through various means at each of the colleges 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

The following partnerships and activities support the ongoing collaboration between MDOE-CTE and industry.

- AC data collection process is being revised and integrated into the Perkins Application website
- AC reviewed current curriculum(s)
- Articulation agreements, Enhanced Articulation Agreements and Programs of Study on file Apprenticeship
- Collaboration between one local region and MDOL to assist the CTE Region in becoming SHAPE awarded.

- 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
- Collaboration with a regional safety provider to offer discounted registration fees for CTE individuals
- Collaboration with industry to offer GREEN construction practices and Lead Safety Training for instructors
- Collaboration with OSHA Region One OTC to secure discounted price for training courses.
- Conduct a comprehensive examination(s) of the standards
- CTE is actively engaged developing interest for new programs like Wind Energy/Wind Turbine Repair Technology
- CTE is actively engaged in STEM partnerships within the CTE framework
- CTE is an active member of the Maine Manufacturers Association Education Committee
- CTE is lead department in expanding industry related safety and OSHA training for CTE instructors
- Expand pre-apprenticeship opportunities
- Field tested a CTE Mentorship program to increase pre-apprenticeship activities between multiple CTE sites.
- Future occupations to be explored: Biomass, Alternative Energy, Green Technologies, and traditional careers becoming more Green
- Live Work policies
- Membership(s) includes teachers, business/industry partners, secondary/postsecondary constituents, students and other interested stakeholders
- Minutes on file for each AC meeting
- On file; Live Work Policies been reviewed/updated; Expiration Date
- Program(s) create a plan for moving towards national standards and/or a Industry Recognized Credential
- Program(s) nationally aligned
- Require that each CTE school have contact with MDOL Pre-apprenticeship program representative each school year Industry Collaboration and make students aware of Pre-apprenticeship opportunities
- Secondary Program Advisory Committees
- Secondary Program Advisory Committees meet annually

Maine currently has 24 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 DOL, as well as Maine DOE, helps ensure compliance with labor laws and inclusion of educational progress and goals at student work assignments. Cooperative Education teachers have continued to move forward on getting training in and program approval for the student WorkReady employability skills certification administered by the Maine Departments of Education and Labor. Next steps include revising the statewide standards for Cooperative Education to reflect both the areas required for WorkReady certification as well as any additional skills taught.

### 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 by having college administrators sit on local WIA boards and 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:** Between July 1, 2010 and June 30, 2011, six of the twenty-seven Maine CTE schools submitted eight proposals for new programs. The proposals included several STEM related careers. In developing a new program proposal, schools were asked to indicate what national standards they wish to align the curriculum with, what industry credential students have the opportunity to earn, and whether the new program is supported by the local community. In addition schools

were asked to indicate the post secondary articulation and/or dual enrollment agreements available. Schools provided labor market statistics and were encouraged to consider new and emerging technologies.

**Exploratory Programs:** Between July 1, 2010 and June 30, 2011, one Maine secondary CTE school submitted a proposal for a new exploratory CTE program. An exploratory CTE program is one 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 to 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 2010 - 2011 academic year Perkins funds were used to purchase computers for off-campus sites in rural areas to allow CTE courses to be offered in off-site locations. The Rural Initiative grant in 10-11 provided Health Information Technology courses to 50 students.

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

**Secondary**

Over the past year MDOE CTE has worked with tech group directors to organize Tech Update meetings to which industry representatives have met with instructors to present updated information regarding industry standards and to discuss assessment options that align to the competencies of the selected standards. Tech groups that have met for these updates over the past year are: Computer Repair/Install; Cooperative Education; Drafting; Graphic Arts; Health Services; Machine Tool; Multimedia; Pre-Engineering; Public Safety; and Small Engine Repair. Plans are underway to meet with the Business Studies and Composite Manufacturing groups in the upcoming months.

Appropriate technical skill assessments that align to the frameworks' competencies have been or are in process of being identified and piloted for final approval of the MACTE directors. MDOE has produced an interactive MDOE-CTE Directory of Technical Skills Standards and Assessments that is available as a resource to CTE schools and partner high schools, students, and parents.

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.

Opportunities to demonstrate CTE technical skill attainment will be evaluated through the CTE program approval process, Maine's CTE Comprehensive School Review process, and the local Program Advisory Committee program review.

**Postsecondary – MCCS**

The colleges of the MCCS have continued the Skill Assessments and Standards work that began with the implementation of Perkins IV. The State of Maine now includes in a list in the online grant system of the current third party skill assessments available to CTE students at the MCCS. 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 contracts with the National Student Clearinghouse to obtain data on post-secondary students' enrollment status and achievements at educational institutions, which allows the department to estimate the number of students entering into college from our CTE's. In addition, the department will be hiring a CTE Data and Technology Consultant, whose responsibilities will include assisting in data collection, analysis, and use as well as assisting in the development of state and local improvement plans based on state- and local-level data. Further, the department continues to develop a comprehensive statewide longitudinal data system whose future functionality is expected to include collection of PK-Adult data for CTE students as well as employment data upon graduation.

**Student Placement 5S1:** The data reported for this year include information about students who graduated from a secondary school in the state, which was gathered from the Maine Department of Labor, including the number of students who entered the workforce, the number who entered military service, and the number who became self-employed. Because of the continued controversy surrounding the collection of student Social Security numbers for reporting purposes, only a percentage (38.9%) of students—those for whom the MDOE could provide Social Security numbers—were submitted to the Maine Department of Labor for matching purposes. The data provided by the Maine Department of Labor were extrapolated to estimate the total population for the disaggregated indicators of Employment and Military.

**Graduation Rate 4S1, 3S1 not available until March 2012:** The graduation rate for CTE secondary students in the state could not be calculated in a timely manner for the new file specification, CTE Concentrators Graduation Rate, for the 2010–

2011 school year. The data will be ready for reporting in March 2012. Because this is a reporting requirement, data from a program year prior to program year 2010–2011 are not available.

**Postsecondary – MCCS**

The MCCS Perkins Grant Manager continues to work with the colleges to enhance our data collection capabilities. All of the colleges of the MCCS are working in the Jenzebar SIS platform. In addition, the System Office of the MCCS has begun the process to develop a system-wide data collection/storage space. The new IR data structure will allow for more accurate and detailed system level data. The MCCS also works with the Maine Department of Labor for employment matches and the National Student Clearinghouse for transfer matches.

- ***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, fewer of the instructors in the trade and technical occupations programs entered academia through academic channels. Most enter, instead, from their positions in business and/or industry. Personnel without an academic background take courses 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. Maine Department of Education CTE team also reviews data from the Center for Workforce Research and Information within the Maine Department of Labor <http://www.maine.gov/labor/cwri/pubs.html>. 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. 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 DOL 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

Currently twenty of the twenty-three Maine CTE secondary tech groups (87%) are aligned with nationally or state recognized skills standards. The three tech groups that are still in process of identifying an industry-related standard are: Pre-Engineering; Business Studies; and Composites Manufacturing. MDOE CTE is working with the tech groups and with directors and curriculum coordinators at the schools to identify potential frameworks and related technical competencies listed within appropriate national or state standards for these three tech groups.

In May 2011 the MDOE CTE team surveyed the directors of Maine CTE centers/regions for information pertaining to the current use of technical skills assessments. During the MACTE October 2011 Tech Update Conference tech groups provided additional information regarding industry-related standards and technical skills assessments. An August 2011 – June 2014 time frame has been set during which MDOE CTE will work with MACTE and the CTE tech groups to determine and approve appropriately aligned technical skills assessments.

It is anticipated that Maine's student data system, Infinite Campus (IC), will have the capacity to gather the data on how many students took and passed at least one third party assessment.

MACTE Tech Group	CIP Code	Industry Related Standard	Technical Skills Assessments
<b>Agriculture/Horticulture</b>			
Agricultural Mechanics and Equipment/Machine Technology	01.0205	NCAE Power, Structural and Technical Systems	NOCTI Agriculture Mechanics (2102)
Applied Horticulture	01.0601	NCAE Plant Systems	NOCTI # 3149 Horticulture and Landscaping, Performing Arts Visual
Natural Resources Management and Policy	03.0201	NCAE Natural Resource Systems	NOCTI # 3039 Forest Products and Processing
Parks Recreation and Leisure Facilities Management	31.0301	American Canoe Association, Swift-water Rescue & Whitewater Canoeing	Maine Camp Trip Leader Permit
<b>Auto Collision Repair</b>			
Automotive Body Repair	47.0603	NATEF Painting & Refinishing NATEF Non-Structural Repair	I-CAR; NATEF; NOCTI #3006; Skills NA3SA
<b>Auto Technology</b>			
Automobile/Automotive Mechanics Technology	47.0604	NATEF Four Core and GST Maine License Inspection Technician	Ford/AAA; Maine Oxy Fuel; Maine Inspection License; NA3SA; NATEF; NOCTI # 4109; Automotive Technician Care; OSHA 10 Hour; SP2 - Safety & Pollution 2; Valvoline Oil
<b>Building Trades</b>			
Construction Trades, General	46.0000	NCCER Carpentry and Core	Basic First Aid; Carpentry Level 1; Contren Carpentry Levels 1 & 2; CPR; Fork Lift Operator; NAHB; NCCER Academic; NOCTI 4015; OSHA 10 and 30 hour cards; SkillsUSA
Mason/Masonry	46.0101	NCCER Core and Masonry Level 1	
Carpentry	46.0201	NCCER Core and Carpentry NAHB Residential Carpentry	
Plumbing Technology	46.0503	NCCER Core and Plumbing; International Association of Plumbing and Mechanical Officials Uniform Code	
<b>Business Studies</b>			
Business Administration and	52.0201	The Business Studies tech group is reviewing	CISCO Discovery 1 and

Management, General		several industry-related standards options. MACTE has not yet received the tech group's standards recommendations for approval.	2; CISCO IT Essentials; NOCTI; NOCTI Basic Accounting 3000; NOCTI Financial and Invest. Planning 1094; MOS Certifications
Accounting Technology/ Technician and Bookkeeping , 52.0302			
Administrative Assistant and Secretarial Science, General, 52.0401			
Business/Office Automation. 52.0407			
General Office Occupations and Clerical Services, 52.0408			
<b>Composites Manufacturing</b>			
Materials Engineering	14.1801	Composites Manufacturing is a new tech group with programs being taught at 2 CTE centers. The tech group is reviewing industry-related standards options for MACTE approval.	To Be Determined
<b>Computer Repair/Install</b>			
Computer Installation and Repair	47.0104	CompTIA Cisco Certified Entry Networking Technician Standards	A+ 220-701 and 702; certification and Exam; A+ IT Essentials and Tech Designation; A+, Network +; Apple Certified Mac Tech; CISCO; CompTIA A+; NOCTI # 3414
<b>Cooperative Education</b>			
Cooperative Education	99.1000	WorkReady™	CASAS ECS Level 3; NOCTI; OSHA 10; SkillsUSA
<b>CTE Special Needs Employability Skills</b>			
CTE Special Needs	99.7000	ACT Work Keys	OSHA 10 hour/30 hour card; Work Keys
<b>Culinary Arts</b>			
Culinary Arts/Chef Training	12.0503	ACF Culinary NRA (National Restaurant Association) NRAEF ProStart NRAEF ServSafe	(ACF) Secondary; NOCTI 4036 and 4136CA; NRAEF ProStart and ServSafe; OSHA 10; SkillsUSA
Food Preparation/Professional Cooking/Kitchen Assistant, 12.0505			
Hospitality and Recreation Marketing Operations, 52.1910			
<b>Drafting</b>			
Drafting and Design Technology	15.1301	Maine Statewide Drafting Standards	AutoCad; Autodesk Software Cert; NOCTI; Drafting & Design (3038); SkillsUSA; Autodesk Certified User
CAD/CADD Drafting and/or Design Technology/Technician, 15.1302			
Architectural Drafting and Architectural CAD/CADD, 15.1303			
<b>Early Childhood Occupations</b>			
Child Care Provider/Assistant	19.0709	American Red Cross CPR and First Aid; Maine Roads to Quality; National Association for Education of Young Children (NAEYC)	NOCTI 3016; Red Cross CPR and First Aid
<b>Electrical</b>			
Electrician	46.0302	NAHB Residential Electrician National Fire Protection Agency (NFPA) Electrical Code NCCER Core NCCER Core Electrical 1 & 2	45 Hour Code; Contren Electrical Level 1 & 2; Maine Helper's License; Maine Journeyman 576 hour; NCCER Construction Core and

			Electrician; NOCTI # 2031 Electrical Occupations; OSHA 10/30 hour card
Electrical/Electronics Equipment Installation and Repair, 47.0101			
<b>Graphic Arts</b>			
Graphic Communications, General	10.0301	Print Ed; Adobe Certified; Associate/Visual Design + Visual com Photoshop	Adobe Photoshop CS5 and Visual Communications; OSHA 10; PrintEd; Skills USA
Prepress Desktop Publishing and Digital Imaging Design, 10.0303			
Graphic and Printing Operator, 10.0305			
Web Page, Digital/Multimedia and Information Resources Design, 11.0801			
Visual and Performing Arts, General, 50.0101			
Commercial & Advertising Art, 50.0402			
Graphic Design, 50.0409			
<b>Health Services</b>			
Health Services/ Allied Health	51.0000	AMT Medical Assisting Maine CNA Maine CRMA Maine PSS	Adult and Infant CPR; AED certification; CMAS; CRMA MAS; First Aid; NOCTI # 4058; Maine CNA
Nurse/Nursing Assistant/Aide and Patient Care Assistant, 51.1614			
<b>Machine Tool</b>			
Machine Tool Technology	48.0501	NIMS Machining Level 1	NIMS; NOCTI Precision Machining
<b>Marketing/Sales</b>			
Entrepreneurship	52.0701	MarkEd Marketing National Retail Federation	National Retail Federation Customer Service exam
Banking and Financial Support Services, 52.0803			
Marketing/Marketing Management, 52.1401			
Sales, Distribution, and Marketing Operations, General, 52.1801			
Retailing and Retail Operations, 52.1803			
<b>Multimedia</b>			
Radio & Television Broadcasting Technology/ Technician	10.0202	Maine Statewide Standards (with provisional industry-related approval of Maine Association of Broadcasters)	Adobe Certified Associate; Apple Mac Service Exam; Photo Shop
Cinematography and Film/Video Production, 50.0602			
<b>Pre-Engineering</b>			
Engineering Technology, General	15.0000	The tech group is reviewing industry-related standards options for MACTE approval.	TBD
Manufacturing Engineering Technology/Technician, 15.0613			
Electrical/ Electronics Equipment Installation & Repair, 47.0101			
<b>Public Safety</b>			
Security and Protective Services	43.0000	EMT National Highway Traffic Safety Administration ME Fire Training, Fire Fighter 1 and 2 Maine Criminal Justice Academy	ASHI; AVOC; EMT BASIC; Firefighter I and II; Maine Hunter Safety; NIMS 100, 700; NOCTI # 3081; NREMT; ROBOARD FF 1&2; SkillsUSA
Criminal Justice/Police Science, 43.0107			
<b>Small Engine Repair</b>			
Small Engine Mechanic/Repairer	47.0606	ABYC (American Boat and Yacht Council) EETC (Equipment and Engine Training Council)	ABYC; EETC; NOCTI # 3068; Valvoline Oil
<b>Welding</b>			
Welding Technology/Welder	48.0508	AWS	AWS, QC3-89, structural

		NCCER Core NCCER Core, Welding 1 & 2	certification exam, and Unlimited Structural; D1-SM-F4-P-A-L; Forklift Operator; NCCER Core, Welding 1 & 2; NOCTI; OSHA 10 hour
<b>Wood Harvesting, Heavy Equipment, Commercial Driving</b>			
Forestry Technology/Technician	03.0511	Certified Logging Professional Training NATEF Medium/Heavy Truck Program NCCER Core NCCER Heavy Equipment State of Maine PTDA curriculum	AED; ASE; Basic First Aid; BMV; CLP; Commercial Drivers License; CPR; First Aid; Fork Lift Operator; Maine CDL A License; NOCTI # 3027; OSHA 10 Hour
Heavy Equipment Maintenance Technology/Technician, 47.0302			
Construction/Heavy Equipment/Earthmoving Equipment Operation, 49.0202			
Truck and Bus Driver/Commercial Vehicle Operator and Instructor, 49.0205			

### Postsecondary – MCCS

During the 2010-2011 academic year the MCCS continued its efforts 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 2010, 978 CTE concentrators graduated and left postsecondary education.

- 572 (58.5%) 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.
- All seven of the colleges were able to report student level data in the program areas listed above.
- Data was collected on skill assessments for 480 graduates (64%) and of those 465 (96.88%) passed.
- Of the assessments that we were able to collect student level data, 400 took End of Program Assessments, 80 took End of Course Assessments and 46 took both an End of Program and an End of Course Assessments (these students were counted with the End of Program students to assure an unduplicated student count).

The MCCS exceeded the CARS measure comparing students who took assessments to students who passed assessments. Our rate was 96.88%, 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 more than the 90% threshold. The adjusted level of performance was set at 33%; the actual level of performance was 28.4%.

The State of Maine Career and Technical Education met core indicator 1S2: Attainment of Academic Skills-Mathematics at the 90% threshold. The adjusted level of performance was set at 25%; the actual level of performance was 27.8%.

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

READING	CTE students tested in Spring	Students who met or exceeded	Percentages
Total	3665	1042	29.3%
Female	1159	393	33.9%

Male	1916	507	26.5%
American Indian/Alaska Native	22	3	13.6%
Asian/Pacific Islander	25	8	32.0%
Black	70	20	28.6%
White	2932	862	29.4%
Displaced Homemaker	3	0	0.0%
Economically Disadvantaged	1173	276	23.5%
Limited English Proficient	51	7	13.7%
Migrant	0	0	0.0%
Single Parent	34	7	20.6%
Special Education	697	80	11.5%
<i>Note: For ESEA, the MDOE reports only Reading scores, not Reading and Writing.</i>			

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

<b>MATH</b>	<b>CTE students tested in Spring</b>	<b>Students who met or exceeded</b>	<b>Percentages</b>
Total	3119	761	24.4%
Female	1169	289	24.7%
Male	1950	472	24.2%
American Indian/Alaska Native	23	4	17.4%
Asian/Pacific Islander	25	10	40.0%
Black	71	9	12.7%
White	2972	735	24.7%
Displaced Homemaker	3	0	0.0%
Economically Disadvantaged	1202	231	19.2%
Limited English Proficient	56	6	10.7%
Migrant	0	0	0.0%
Single Parent	34	2	5.9%
Special Education	713	62	8.7%

### **1S1 Academic Attainment Improvement Plan**

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 2009. 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 2011-2012 and plans for 2012-2013**

The Maine Administrators of Career and Technical Education (MACTE) hold a state professional development conference each summer. This summer’s agenda was a demonstration of best practices by each school. Many of the practices included literacy training for staff and teaching opportunities for students. We will share these best practices with all CTE centers across the state. We will also survey the directors to find out what resources we need to make available and what teacher training MDOE can provide to help them raise the scores of the CTE students. In FY 10 we pushed literacy as our top professional development agenda item.. Activities from FY10 included:.

- 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.

Maine is also in the process of implementing a new set of academic standards which will in turn change the assessment system currently in place. The Common Core State Standards will be the official standards in English/Language Arts and mathematics beginning with the school year of 2012-2013. At that time the current standards in these two areas in Chapters 131 and 132 will no longer be in effect. While this document refers to the Common Core Standards the practices and strategies can be used with any content area, including standards set for Career and Technical Education programs. The Common Core state standards present a common platform across many states and efforts nationally to support a stronger implementation of standards than has been present in the past. This will result in higher quality resources and professional development for our teachers in Maine. For each of the following strategies and deliverables a member of the Implementing the Common Core Standards Team (ICCS) has been identified for the key responsibility. The team will be led by Dan Hupp and will meet with the national consortium three times a year through CCSSO and will meet regularly on an agreed upon schedule between meetings to monitor progress.

#### Postsecondary – MCCS

During the 2009-2010 academic year (reported in December 2011), the MCCS did not meet the 2P1 accountability measure for Credential, Certificate or Degree. As you can see in the table below, the Asian, Hispanic/Latino and LEP students had the lowest percentages, but these categories encompass a minute portion of the reporting cohort. In today's economy it is difficult for students who are struggling financially to remain in school, but the colleges of the MCCS will continue to support students and increase retention rates through: specialized course tutoring workshops for high risk courses; high risk student identification and support; individual strategic enrollment plans; individualized counseling, advising and financial aid support; assigned advisors for at-risk students; mid-term course warnings sent to students and advisors; and scholarships.

<b>GENDER</b>	# who LEFT and Graduated	# who LEFT	
Male	466	1157	40.28%
Female	512	1146	44.68%
<b>RACE/ETHNICITY* (1997 Revised Standards)</b>			
American Indian or Alaska Native	14	44	31.82%
Asian	4	23	17.39%
Black or African American	10	25	40.00%
Hispanic/Latino	3	33	9.09%
Native Hawaii or Other Pacific Islander			0.00%
White	864	1988	43.46%
Two or More Races			0.00%
Unknown	83	190	43.68%
<b>SPECIAL POPULATIONS AND OTHER STUDENT CATEGORIES</b>			
Individuals With Disabilities (ADA)	50	114	43.86%
Economically Disadvantaged	427	1014	42.11%

Single Parents	77	187	41.18%
Displaced Homemakers	14	38	36.84%
Limited English Proficient	4	32	12.50%
Nontraditional Enrollees	222	572	38.81%
Tech Prep	N/P	N/P	XXX%

### 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.

		FY11 TOTAL	CARRY	TOTAL FUNDS
		CENSUS DATA	OVER	CENSUS DATA
<b>SECONDARY FUNDS</b>				<b>FY2011</b>
Augusta		\$129,730.00	5167	\$134,897.00
Bath		\$70,348.00	2802	\$73,150.00
Biddeford		\$100,978.00	4022	\$105,000.00
Bridgton		\$59,481.00	2369	\$61,850.00
Calais		\$34,049.00	1356	\$35,405.00
Caribou		\$32,133.00	1280	\$33,413.00
Van Buren (Caribou Fiscal)		\$8,229.00	328	\$8,557.00
Dexter		\$108,078.00	4305	\$112,383.00
Ellsworth		\$90,054.00	3587	\$93,641.00
Farmington		\$77,076.00	3070	\$80,146.00
Lewiston		\$213,439.00	8502	\$221,941.00
Machias		\$48,388.00	1928	\$50,316.00
Portland		\$229,461.00	9140	\$238,601.00
Presque Isle		\$37,893.00	1509	\$39,402.00
Sanford		\$171,748.00	6841	\$178,589.00
Skowhegan		\$93,854.00	3738	\$97,592.00
St. John Valley		\$24,675.00	983	\$25,658.00
Waterville		\$107,650.00	4288	\$111,938.00
Westbrook		\$140,683.00	5604	\$146,287.00
Region 2		\$44,565.00	1775	\$46,340.00
Region 3		\$55,921.00	2227	\$58,148.00
Region 4		\$183,231.00	7298	\$190,529.00
Region 7		\$59,200.00	2358	\$61,558.00
Region 8		\$86,023.00	3426	\$89,449.00
Region 9		\$52,532.00	2093	\$54,625.00
Region 10		\$76,299.00	3039	\$79,338.00
Region 11		\$49,343.00	1965	\$51,308.00
<b>TOTAL SECONDARY</b>		<b>\$2,385,061.00</b>	<b>\$95,000.00</b>	<b>\$2,480,061.00</b>
<b>POST SECONDARY FUNDS</b>				
Maine CC System	\$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>