



Connecticut State Department of Education

Plans for Performance Improvement

Perkins Core Indicators
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2009-2010

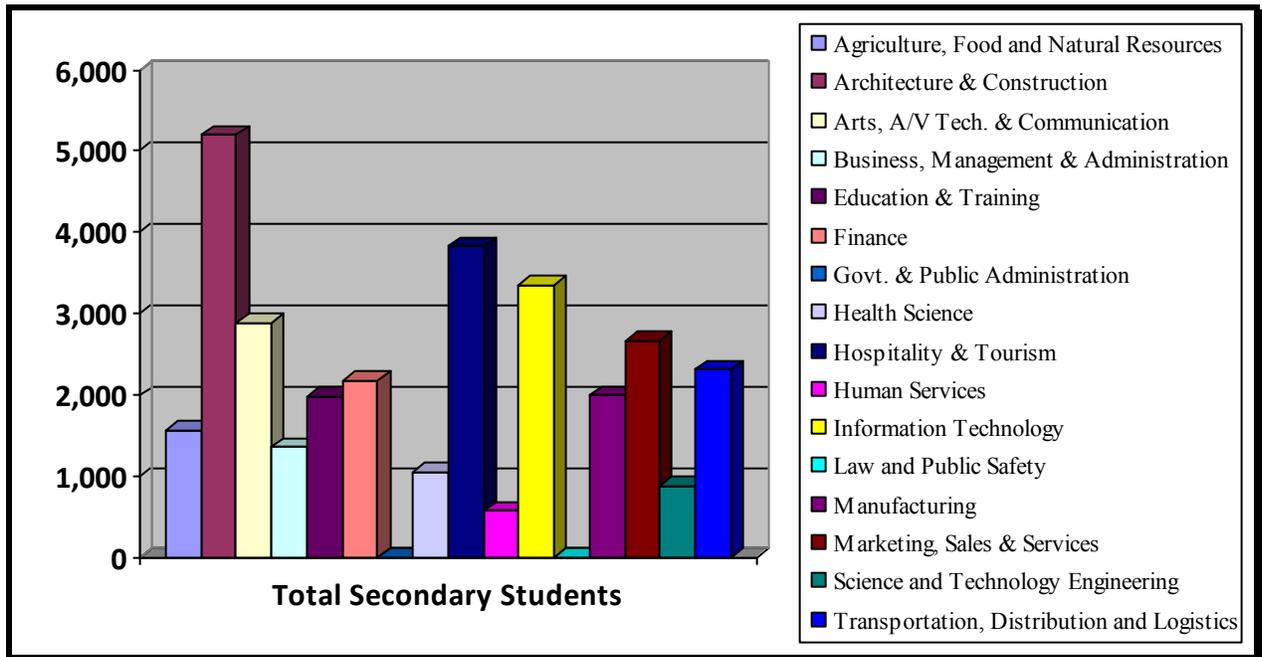
**Connecticut State Department of Education
Carl D. Perkins Annual Report Narrative
2009-10**

Connecticut Educational Structure

In Connecticut through the State Department of Education (CSDE), Carl D. Perkins funds are utilized to develop and enhance career and technical education (CTE) offerings in a multitude of educational settings. Funds are shared with schools that fulfill state and federal specified size, scope, and quality. Carl D. Perkins provides support to students who elect to take career and technical education courses in preparation for some form of postsecondary education and work. It is an expectation that all students will be college ready in a philosophy that “college is for all students”; however, that does not preclude student entry into industry certification, licensure, or on-the-job-training programs.

- 169 school districts (not all districts have high schools)
- 117 districts receive Perkins funding (comprehensive high schools)
- 17 high schools: Connecticut Technical High School System
- 19 Agriculture Science and Technology Education Centers
- 45 magnet schools with themed focus – some that are career and technical education
- Unified School Districts #1 (Department of Corrections) and #2 (Department of Children & Families)
- Community College System – 12 colleges
- University of Connecticut – multiple campuses
- State University System – four state 4-year colleges (no share of Perkins funding)

CTE Student Concentrator Enrollment, 2009-10



Student Concentrator Enrollment by Cluster 2009-10

Career Clusters	Total Secondary Students
Agriculture, Food and Natural Resources	1,570
Architecture & Construction	5,196
Arts, A/V Tech. & Communication	2,897
Business, Management & Administration	1,361
Education & Training	1,991
Finance	2,174
Govt. & Public Administration	0
Health Science	1,063
Hospitality & Tourism	3,831
Human Services	576
Information Technology	3,359
Law and Public Safety	0
Manufacturing	1,996
Marketing, Sales & Services	2,675
Science and Technology Engineering	881
Transportation, Distribution and Logistics	2,315

CTE and Secondary School Reform

The Connecticut State Department of Education (CSDE) has taken bold action to promote and establish legislation for Secondary School Reform which includes the Student Success Plan (Programs of Study). On July 1, 2010, the Connecticut Senate and House of Representatives of the General Assembly enacted Public Act No. 10-111, "An Act Concerning Education Reform in Connecticut. P.A. 10-111 legislates many of the requirements identified under the State Fiscal Stabilization Fund (SFSF) requirements enacted with the American Recovery and Reinvestment Act (ARRA) which includes:

- increased rigor and requirements for high school graduation in Connecticut;
- required expansion of the Statewide Longitudinal Data System;
- requirement that all districts have an Advanced Placement course program and a policy for earning credits through online courses;
- a teacher evaluation system linking student and teacher performance, including multiple measures of student growth; and
- required Student Success Plans (SSP) with adequate student support and remedial services.

The Connecticut Plan for Secondary School Reform will begin with the state mandate for Programs of Study, in Connecticut called the "Student Success Plan" for every student beginning in Grade 6. Each school district will be required to establish the SSP for all students beginning in 2012, which will support students' academic, career and social, emotional, and physical development. The major components of the SSP are located on the CCSDE Web site at <http://www.CSDE.ct.gov/CSDE/cwp/view.asp?a=2702&Q=322264>. The SSP mirrors the national model for career technical education (CTE) Programs of Study and Connecticut's Comprehensive School Counseling Program model which is described under Guidance Counseling and

Career Advisement. The above-mentioned link on the CCSDE Web site provides guidelines for districts and colleges that have or will begin to plan and implement elements of the Secondary School Reform. A series of webinars detailing the major elements of the reform are being developed to further guide districts and will be updated on the CCSDE Web site. The gradual phase-in of the Secondary School Reform Plan will be fully implemented by 2018. The flexible learner-centered SSP is focused on student engagement and relies on a critical adult(s) to help students create, monitor, and revise a plan which will guide them through their secondary and postsecondary career and to future employment. One of the major objectives through this application is to secure a statewide license for an electronic system which will allow students, parents and teachers to plan, support and evaluate student progress throughout their educational career. The **SSP** will allow students to:

- identify interests, set goals and explore possible career aspirations;
- establish a sequence of academic and career courses within a pathway which leads to postsecondary education;
- access a proactive, holistic support system that ensures academic and personal well-being;
- participate in experiential learning within an area of interest or career pathway;
- begin their postsecondary coursework in high school through high school/postsecondary education articulation agreements; and
- demonstrate learning using skills defined as 21st Learning through a culminating Capstone Experience.

The **Capstone Experience** is a culminating project that provides a way for students to demonstrate the knowledge and skills they acquired during their secondary school education. It engages students in a project that focuses on an interest, career path or academic pursuit that synthesizes classroom study and a real-world perspective. High school students are asked to demonstrate their ability to apply key knowledge and skills by planning, completing, and presenting a culminating project linked to one or more areas of personal interest and the individual's SSP.

Connecticut Academic Performance Test

Connecticut State Department of Education requires that districts administer the state Connecticut Academic Performance Test (CAPT) each year to all 10th graders which measures math and reading skill attainment. Connecticut CTE student concentrators exceeded statewide student performance for 2009-10 for math and reading.

Connecticut's Overall CAPT Performance Results 2009-10

2008-09 CAPT	CT Proficiency NCLB Target 2008-09	CTE Student Concentrator Performance (Proficiency)	State-wide Student Performance (Proficiency)
Reading	81.0%	90.3%*	83.7%**
Mathematics	80.0%	86.5%*	80.0%**

*Represents CTE student three-year CAPT assessment beginning in grade 10 and retakes thereafter through grade 12.

**Statewide student 10th grade performance levels.

a. Required Use of Funds

CTE Assessment

Pursuant to Section 113 of the Carl D. Perkins Career and Technical Education Improvement Act of 2006, states must "... establish a State performance accountability system, comprised of the activities described in this section, to assess the effectiveness of the State in achieving statewide progress in career and technical education, and to optimize the return of investment of Federal funds in career and technical education activities."

The inclusion of this language in the Carl D. Perkins legislation focused the attention of Connecticut Career and Technical administrators and teachers to construct a sustainable and ever-improving process of CTE statewide assessment. To fully understand the ever-evolving statewide assessment program we begin with a historic context.

As we trace the origins of Career and Technical Education in Connecticut, accountability in one venue or another has been an integral part of our annual cycle of operations and development. From the Connecticut high school industrial and agricultural training programs created by the Smith-Hughes Act of 1917; to the creation of high school vocational programs in home economics, office practices and distributive education, resulting from the George-Barden Act of 1946; to the sweeping development of vocational education, brought about by the passage of the Vocational Education Act of 1963 and the Vocational Education Amendments of 1968, Connecticut has strived to measure quality now known as Career and Technical Education.

For decades, Connecticut has worked to ensure the highest quality career and technical education programs and instruction, providing statewide professional development in each of the CTE program areas, annual grant, and program reviews, and direct involvement of business and industry. Connecticut CTE has more than met the challenge of every federal legislative mandate in spirit and in practice. The state has held firm in belief that one of the inevitable outcomes of education is that state citizenry will seek productive and fulfilling employment.

In April, 1983, *The Nation at Risk* document brought the national focus to the issue of accountability for everyone engaged in the process of education. Almost overnight, the national dialogue turned to the academic proficiency of America's youth. However, what many people fail to remember about *The Nation at Risk* document is the authors' stated purpose of education, contained in the opening statement of this landmark document that was to spur the development of accountability initiatives throughout the United States, "... (the promise of education) *means that all children by virtue of their own efforts, competently guided, can hope to attain the mature and informed judgment needed to secure gainful employment...*".

Our commitment to that universal life goal has prompted Connecticut CTE to seek improved methods of bringing about continued improvement throughout our schools, programs, and students. The Carl D. Perkins legislation required each state to establish performance standards for Career and Technical Education, and to design a method of assessment that would statistically demonstrate a plan for continuous improvement. The state continually evaluates the effectiveness of the overall CTE assessment system. Plans are underway to revise the existing areas of concentration in technology education to ensure that the CTE standards used for assessment are in step with agency academic rigor and are aligned to Connecticut labor needs. In addition to the improvement under technology education Personal Finance will be added to the list of assessment areas. The Connecticut State Department of

Education in partnership with NOCTI met this mandate with enthusiasm and the belief that together, administrators, teachers, business, and industry could design a statewide system of assessment. The CSDE did not choose the path of least difficulty in the development of this statewide assessment program. Rather, the state sought to live out the spirit that has been “vocational/CTE” for almost a century. As national, state and local economic need varies and forever changes, we must continue to teach the core of knowledge and skill, necessary to meet daily challenges, while fostering professional appetite. In this era of massive specialization with unlimited menus of CTE course titles we must commit to teach, learn and test those measurable competencies that already have been established by the CTE national professional organizations.

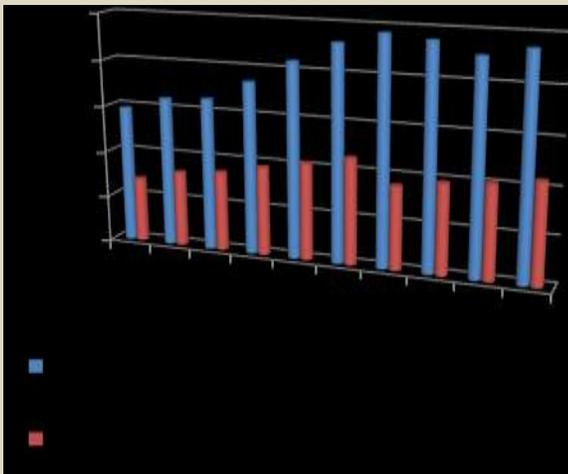
The chart below provides the areas of concentration, a longitudinal comparison of the number of concentrators assessed over the past ten years and the academic foundation competencies assessed under the Connecticut State CTE Assessment system.

**2009-10 Connecticut CTE
Areas of Concentration**

- Agriculture Mechanics
- Animal Science
- Aquaculture & Marine-Related Technologies
- Natural Resources & Environmental
- Plant Science
- Accounting
- Business Management
- Computer Information Systems
- Cooperative Work Education
- Early Childhood Education & Services
- Nutrition, Food Production & Services
- Textiles & Design
- Marketing Education
- Medical Careers
- Certified Nursing Assistant
- Automotive Technology
- Computer Aided Drafting & Design
- Pre-Engineering Technology
- Video Production Systems

Longitudinal Comparison

After two years in development, the Connecticut CTE Assessment program began testing concentrators in 2001. As the “national” standards were revised by the national CTE professional organizations, the Connecticut performance standards and competencies (PS&C) were also revised to align with the latest national PS&C. The revision of the PS&C resulted in a revision in the state CTE assessments. We believe it is critical to the validity of our assessment program to stay as current as possible while integrating our academic foundation competencies into each test. The continuous revision process requires that all members of the CTE education community strive for currency within CTE teaching and learning rather than relying on out-dated competencies and item banks.



Academic Foundation Competencies

Career and Technical Education (CTE) provides a context for the development of academic teaching and learning. The commitment of CTE to enhance academic achievement in our schools, programs and courses, has led to the identification of these Academic Foundation Standards. Consistent with Connecticut's pledge to test CTE concentrators on the national/state performance standards and competencies, we are testing the textual application of the same mathematics and reading competencies assessed in Connecticut academic assessments. Taken directly from the measurable standards of the Connecticut Academic Performance Test (CAPT), these foundation competencies are incorporated into each of the 18 areas of concentration of the Connecticut CTE statewide assessment.

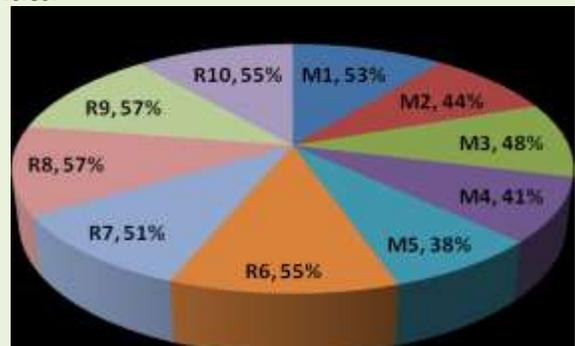
Math

- M1: Extend the understanding of number to include integers, rational numbers, & real numbers.
- M2: Interpret and represent large sets of numbers with the aid of technologies.
- M3: Develop strategies for computation and estimation using properties of number systems to solve problems.
- M4: Develop and evaluate mathematical arguments using reasoning and proof
- M5: Construct appropriate representations of data based on the size and kind of data set and the purpose for its use.

Reading

- R6: Make connections between the text and outside experiences and knowledge.
- R7: Draw conclusions about the author’s purpose in including or omitting specific details.
- R8: Use evidence from the text to draw and/or support a conclusion.
- R9: Use information from the text to make a prediction based on what is read.
- R10: Evaluate explicit and implicit information and themes within a given work.

The chart below shows the percentage of concentrators correctly answering the items linked to the academic foundation competencies.



**Connecticut Career Technical Education Assessment
2008 Summary of CTE Concentrators by Test Title and Cut Score**

Test Code	Test Title	Concentrators	Raw Number Meeting 65%	Percentage of Concentrators Mtg. 65%	Average Total Score (Mean)
7710	Agriculture Mechanics	68	42	61.76%	67.1
7711	Animal Science	212	169	79.72%	72.5
7712	Aquaculture and Marine-Related Technologies	124	70	56.45%	65.2
7713	Natural Resources & Environmental	38	30	78.95%	68.7
7714	Plant Science	92	49	53.26%	62.9
7715	Accounting	654	299	45.72%	61.4
7716	Business Management	433	164	37.88%	59.5
7717	Computer Information Systems	836	330	39.47%	60.6
7718	Cooperative Work Education	448	159	35.49%	58.8
7719	Early Childhood Education & Services	1069	721	67.45%	67.8
7720	Nutrition, Food Production & Services	1255	521	41.51%	60.8
7721	Textiles & Design	165	64	38.79%	60.2
7722	Marketing Education	859	356	41.44%	59.5
7723	Medical Careers Education	622	461	74.12%	71.3
	Certified Nurse Assisting	356	354	99.44%	84.3
7724	Automotive Technology	394	43	10.91%	46.8
7725	Computer Aided Drafting & Design	585	159	27.18%	56.6
7726	Pre-Engineering Technology	655	198	30.23%	55.9
7727	Video Production System	562	161	28.65%	56.1
	TOTALS	9427	4350	46.14	

Use of Technology

The CSDE has taken a new approach to the use of the technology for educational purposes. It was once thought that cell phones and other handheld computerized equipments were a deterrent to student learning. It is now clearly understood that if teachers are prepared to use such equipment for its effective use it can offer students a world of opportunities to meet the challenges of future postsecondary education and the global workplace. It is recognized that the digital world is one that students expect and know how to navigate. The state position will alter approval of future funds offered through the Carl D. Perkins grants.

On the district/college level, plans are reviewed to ensure that CTE offerings include the latest in technological developments. Each content specialist reviews every application to make recommendations on curriculum improvements, updates, and equipment purchases. The plans are not approved for fund distribution until it has been confirmed that they fulfill the state expectations of technological advancement for all CTE courses. Over the last decade great strides have been made particularly in technology education moving away from industrial arts to contemporary national standards-based curriculums in the comprehensive high school CTE pathways. Technology is seen as a tool to enhance academic rigor facilitating student transition to postsecondary education and the workplace. The state has taken the position where the use of smart phones and other handheld equipment should be considered a learning tool with the appropriate application and controls. State professional development workshops for all pathways are offered throughout the year to offer the latest in use of technology.

Professional Development

The following conferences and workshops were sponsored by the Connecticut State Department of Education in 2009-10:

Conferences:

Career Pathways: Connecticut Connections

The National Teacher of the Year was the keynote speaker. Workshop sessions on Connecticut best practices included STEM, CWE Programs, E-Commerce Entrepreneurship, and Careers in Green Technology. 225 attendees – December 2, 2009

Planning for Non-traditional in Career Technical Education

The Connecticut Women's Education and Legal Fund provided this conference on enrollment and retention of NTO students in CTE. 57 attendees – April 7, 2010

Skills for the 21st Century: Teaching Entrepreneurship & Personal Finance

Best practices in teaching entrepreneurship, running a student business, and presentations given by student entrepreneurs were the highlights of this conference. 80 attendees – April 30, 2010

Business and Finance Technology Education Leadership

Practical applications for the classroom, new software, and online resources were all discussed in this conference for Business Education leaders. 55 attendees - May 7, 2010

Workshops

Perkins 101 Workshop

An in-depth explanation of Perkins was provided to new administrators by the State Director. 35 attendees - October 23, 2009

Public Health – Curriculum Integration

This workshop helped educators from a variety of subject areas learn how to integrate an awareness of public health into their curriculum. 8 attendees – October 30, 2009

Developing Personal Finance courses

Districts receiving grants to develop an Investing and Personal Finance program received technical assistance and professional development facilitated by Junior Achievement. 12 attendees – 6 sessions - November - May

21st Century Public Health

Educators discussed ways to raise student awareness of personal and community health issues. They then visited public health worksites. 17 attendees – March 31, 2010

Office 2007 – Making the Switch

Business Education teachers learned how to make the best use of the updates in Microsoft Office 2007. 12 attendees - April 1, 2010

Smart Boards 101

CTE teachers learned how to use Smart Boards and how to integrate them into their practice. 12 participants - May 6, 2010

Working Papers

The updated regulations for issuing working papers were explained and presentations were given by OSHA and DOL. 150 attendees - May 5, 2010

Frameworks Review and Revision

Framework sessions were held in three areas. These sessions involved reviewing existing Connecticut and national standards and updating Connecticut standards.

Family and Consumer Sciences – 22 participants, July 1, 2009

Business and Finance Technology – 15 participants, November 2, 2009, November 16, 2009, January 25, 2010.

Technology Education – 30 participants, December 22, 2009

Non-Traditional Preparation

The Connecticut State Department of Education shares Perkins funding to the Connecticut Women's Education and Legal Fund (CWEALF) also known as VERTEC to evaluate practices and increase opportunities for non-traditional student participation and completion. During 2009-10 VERTEC reviewed district level core indicator performance levels to identify district that fell below the final

agreed upon performance level. A statewide workshop was hosted for districts and colleges that had not met performance levels utilizing best practice schools.

During 2009-10 the following trainings were offered by CWEALF/VERTEC:

GENDER EQUITY TRAINING

- August 18: South Windsor High School; to discuss strategies for improving nontraditional numbers in CTE
- October 2: LEARN; approximately 20 school counselors in the region in attendance
- October 28: New Fairfield High School, STEM Careers for Women; approximately 30 students in attendance
- February 12 and ongoing: University High School of Science and Engineering (Hartford magnet); about support activities for females.
- April 26: Central Connecticut State University; approximately 25 pre-service technology education teachers students in attendance
- May 13: Enfield Public Schools' CTE Advisory Board; approximately 25 teachers, counselors, administrators and business representatives in attendance

SEXUAL HARASSMENT TRAININGS:

- July 15: Windham Public Schools; approximately 30 maintenance staff in attendance
- August 25: Woodland Regional High School for all Region 16 new hires; 13 staff in attendance

CONFERENCE:

April 7: Career and Technical Education: Planning for Nontraditional (NTO) Success Conference held at Southbury Crowne Plaza

There were 57 conference participants in total. Attendees were from the following school districts: Bolton, Coventry, East Hartford, East Haven, Enfield, Fairfield, Farmington, Glastonbury, Griswold, Hamden, Hartford, Manchester, Milford, Naugatuck, New Britain, New Fairfield, New Haven, Plainfield, Portland, Rocky Hill, Shelton, Simsbury, Stafford, Stratford, Trumbull, Vernon, Windsor, and Wolcott. Additionally, there were attendees from the CT State Department of Education, Mercy Learning Center, and Tunxis Community College. Four other registrants listed other or unknown as to their affiliation.

Attendees listed the following functional descriptions of their occupations:

Coordinator: 5; Counselor: 9; Curriculum director: 2; Department head: 1; Director certified: 1; Director professional development & training: 1; Grants and Budget manager: 1; Job placement counselor: 1; Program manager: 2; Supervisor of student services: 1; Teacher: 29; and Other: 4.

Participants found the following most beneficial: Cheshire/Ansonia presentations (36%); Sharing/hearing about other schools' ideas (22%); Keynote (22%); Learning/using the SCOB technique (20%); Networking opportunities (13%); Collaborating and brainstorming (6%); and, Information to bring back to district (2%).

IN PROGRESS:

Completed a 9 lesson curriculum outline on education research (re: why girls get and stay involved in STEM) created; to be implemented in 2010-2011 school year for use with University High School of Science and Engineering (UHSSE) female students.

In addition to the Equity Check, CWEALF reviewed other state data and local district Continuous Improvement Plans to determine which districts would benefit from improvement strategies. An additional charge taken on by CWEALF was to align CIP codes by nontraditional categories to all CTE programs and career pathways.

Partnerships

In 2008, a partnership team met to establish a priority list of career pathways which would best serve the State of Connecticut. This Pathways Partnership includes the Departments of Education, Labor (DOL) and Community and Economic Development, along with the Community College System, the Office of Workforce Competitiveness (OWC) and the Connecticut Business and Industry Association (CBIA). The collaboration resulted in the publication, *Connecticut Career Pathways*, which serves as a resource for districts and colleges to prepare students for their future careers. The document is located on the CCSDE Web site at http://www.CSDE.ct.gov/CSDE/lib/CSDE/pdf/Curriculum/CT_Career_Pathways.pdf. This partnership team continues to meet with an ever-increasing commitment to work together to prepare students for college and careers in a difficult economic climate.

In addition, a CCSDE/DOL partnership between the Connecticut Career Resource Network (CRNN) and the CTE Unit established in 1994 focuses on the intersection of education and employment/learning. Jointly, the partnership sponsors an annual “Connecticut Learns and Works” conference and two major publications which provide critical information on the state’s labor market aligned to the federal career clusters. These publications are disseminated statewide to schools, libraries, and one-stops. Another dimension of this long-standing CCSDE/DOL partnership oversees legal and young worker safety issues of work-based learning. For example, CCSDE works closely with the DOL Wage and Workplace Standards Division to monitor student internship programs, such as the ongoing programs at Sikorsky Aircraft and Electric Boat. This helps to ensure that all CCSDE Career Pathways experiential learning opportunities are aligned with Connecticut’s Child Labor Laws and the Federal Labor Standards Act. The DOL hosts the Connecticut Young Worker Safety Team, an interagency team, co-chaired by the CCSDE and the Department of Public Health that provides information and training on young worker/workplace safety issues not only to student learners enrolled in CCSDE Career Pathways programs, but also to youth enrolled in programs funded through the Workforce Investment Act (WIA). Lastly, high school graduates enrolled in CCSDE Career Pathways programs, who have an SSP and who have met established classroom and workplace learning eligibility requirements, may earn the Connecticut Career Certificate (CCC) signed by the Commissioners of Education and Labor.

Effective transition from high school to postsecondary education and into productive careers is recognized as a critical element of the state’s talent pipeline. The disconnect between the readiness of the state’s high school graduates and the demands of the college classroom and the workplace highlights the urgent need for effective pathways from our secondary schools into the state’s colleges and workforce. In order to address this increasing challenge heightened by the economic climate in our state and to increase the number of Connecticut high school graduates to be prepared for postsecondary education without remedial intervention, the High School, College, and Workforce Transition Committee was established. This committee between the CCSDE and the Connecticut Education and Training Commission (CETC), is co-chaired by the Commissioner of Education. Participants on the Committee consists of CCSDE staff, including the State Director of CTE, and a mix of CETC members representing private industry, stakeholders from higher education, local school districts, regional educational service centers (RESCs) and organized labor.

Connecticut has joined forces with four other New England states as a member of the **New England Secondary School Consortium (NESSC)**. This multistate initiative encompassing five states, include: Connecticut, Maine, New Hampshire, Rhode Island and Vermont. This initiative was created to support and advance innovative approaches to secondary schooling. The NESSC brings together commissioners of education, policy makers, the business leaders and state, regional and national organizations and leaders to advance the common mission—and achieve the shared educational goals—of the member states. In addition, the NESSC designs, plans and implements a variety of school improvement strategies intended to bring greater coherence, alignment and common purpose to the promotion of best practices, school innovation and forward-thinking educational policy across the New England region. The NESSC is working to adopt rigorous 21st century learning standards, establish more accurate and relevant student assessments, and create data systems that will promote comparability of student achievement and educational outcomes across state lines.

A critical partnership between the National Occupational Competency Testing Institute (NOCTI) and the CCSDE has been established as an advisor to the CTE Statewide Assessment System. The System succeeds because of the depth of the collaboration and partnership between secondary education, higher education and business and industry.

State Institutions

In 2009-10, the CSDE provided \$75,000 to State Department of Corrections and \$10,000 to the Department of Families and Students in providing skill development to the incarcerated. A staff member of career and technical helps both departments develop a plan conducive to a more confined setting in ensuring CTE skill attainment. Plans are specifically drawn to prepare students for entry into the workplace to meet state economic trends and workforce demands or to transition to postsecondary education. Students learn by involvement with community non-profit organizations and in-house projects in gaining experiential learning concepts. Overall programming also includes acquisition of workplace skills including: problem-solving, decision-making, teamwork, self-management, and technological literacy.

Special Populations

The CSDE provides opportunity to all students including those who require support services. During school site visits, the CSDE staff meets with the Special Education Director to discuss accessibility and accommodations for students with special needs who elect to take career and technical education courses. The state also asks for verification that CTE teaching staff is provided special services support for paraprofessionals and other accommodations to ensure student success. Under administration of the CTE skill assessment system, students with disabilities are held to the same high expectations as are all students who take CTE courses. However, policies have been established for students with disabilities/504 under administration of the grant to accommodate test setting, arrangements for readers, alternative test completion, time extensions, large print editions, and sign language interpreters.

Technical Assistance

The State Department of Education historically has had a regional approach for technical assistance to guarantee service to all districts and colleges. Each staff member has a designated geographical area to provide general information and grant administration. Each content specialist has state-wide responsibility for their respective pathways. In addition, leadership funds are designated to a regional educational resource center (RESC) which in turn works with all state RESCs to disseminate information and to provide technical assistance through workshops and conferences. Certain staff within the RESCs

take a leadership role in coordinating some of the state Perkins consortiums. Within the consortiums meetings are scheduled for consortium partners to gain technical assistance and to share best practice. Information regarding updates on the CTE assessment system is communicated through the state regional informational meetings.

b. Permissible Activities

Below are some of the major focus areas under Permissible Activities for Perkins 2009-10 in Connecticut:

School Guidance Programs

The SDE has dramatically strengthened its relationships with school counselors over the past several years. In part, it is due to the growing awareness of career development and understanding its overall importance to a students' academic success. Under the P.A. 10-111 legislated on July 1, 2010, as mentioned above, the Student Success Plan and Capstone Project will be required for all students over the next few years. *The Connecticut Plan for Secondary School Reform* cannot be fully realized unless state and local education agencies collaborate in their efforts for Connecticut students.

The CTE unit has developed strong ties with the school counseling consultant as a single voice in development of student success plans under the comprehensive school comprehensive plan. As a result, joint conferences and workshops were and will continue to be provided to a wider audience both CTE teachers, administrators and schools counselors.

Secondary/Postsecondary Articulation Agreements

The CSDE works closely with the Community College System to provide a full range of dual/concurrent enrollment for CTE students. A policy that sets Connecticut apart from other states throughout the nation is one that supports student academic attainment. The CSDE requires that every student who enrolls for College Career Pathway credit (formerly Tech Prep) must also enroll in a specific level math, language arts (Communication) and science college-level course (not remedial) in addition to a CTE college course. This policy was adopted to reduce the number of students who enter the Community College System unprepared for academic success. It has taken many years of collaborating with each community college and their faculty to achieve this goal.

Connecticut Concurrent Enrollment Programs

The summary below is representative of all the state's Community Colleges' College Career Pathways (CCP) Programs; the community college academic deans; the University of Connecticut's (UConn) Early College Experience (ECE) Program; the State University System Office; and two state universities, Eastern Connecticut State University (ECSU) and Central Connecticut State University (CCSU).

The UConn ECE Program (www.ece.uconn.edu) has 139 high schools offering UConn courses for credit. The impact of this one program alone is impressive:

- 7,500 high school students enrolled in 2009-2010.
- 33,000 credits awarded annually.
- 300 certified UConn ECE Instructors offering 50 courses from 25 different academic departments.

The ECE program is a member of the National Alliance of Concurrent Enrollment Programs (NACEP) and uses their standards to certify high school teachers as UConn ECE Instructors:

NACEP Standards are measurable criteria that address quality in concurrent enrollment programs. The standards promote the implementation of policies and practices to ensure that concurrent enrollment courses offered in the high school are the same as the courses offered on-campus at the sponsoring college or university; students enrolled in concurrent enrollment courses are held to the same standards of achievement as students in on-campus courses; and instructors teaching college or university courses through the concurrent enrollment program meet the academic requirements for faculty and instructors teaching in the sponsoring postsecondary institution.

Additionally, the standards encourage greater accountability for concurrent enrollment programs through required impact studies, student surveys, and course and program evaluations (<http://nacep.org/standards>).

ECSU and Gateway Community College have partnership programs with local school districts. ECSU offers courses both on its campus and at Norwich Free Academy (NFA) for NFA students. For the 2009 fall semester, 198 NFA students were enrolled in ECSU courses where students may earn ECSU credits. Gateway Community College has both middle college programs, where New Haven high school students can take a community college course combined with their high school course at the Cooperative High School of Arts and Humanities and the New Haven Academy both interdistrict magnet schools. Gateway also offers special programs for high school students from Hillhouse, Wilbur Cross, and Hill Regional Cooperative High Schools to strengthen reading and math skills and summer programs that offer college credit and opportunities for high school students to fully participate in college life. These programs provide transportation and meals for high school students.

All 12 of the Connecticut Community Colleges and UConn offer CCP Programs funded by the CSDE through the federal Carl D. Perkins Post Secondary Grant. In these programs, high school students take four courses for 12 community college credits based on articulation agreements between the high school and the community college faculty. Under the CCP Program, students in their junior and senior years are required to take a rigorous college courses in math, science and communications, along with one or more CTE education courses. This policy was established by the CSDE to help alleviate the need for remediation upon entry to postsecondary education. No college level remedial courses are allowed. In some cases, two high school courses are required to earn one college course credit. Students in CCP are enrolled in the community college and receive college ID cards in their junior year, giving free access to courses, libraries and other college facilities. Their college courses are available on a college transcript for application to four-year institutions. Quinebaug Valley Community College also has programs called "Running Start" and "Partnerships," which allow high school students to take college courses for credit at Quinebaug Valley Community College. Most of the other community colleges have similar opportunities that go beyond the universally available CCP Programs. Three Rivers allows high school students to take its early childhood education programs. They are currently undergoing an accreditation review by the National Association for the Education of Young Children, which mean that credits earned at Three Rivers will be transferable to university early childhood teacher preparation programs. In addition, in alignment with CTE family consumer sciences programs, an articulation exists with UConn whereby high school students can earn college credit for Human Development Family Studies (HDFS). Many high school administrators take advantage of this opportunity for their students due to the rigorous course content articulated with the increasingly competitive status of UConn. High School teachers undergo specialized training to become qualified to teach the HDFS dual/concurrent course.

Students enrolled in the HDF5 course receive high school, community college, and UConn credit simultaneously. Another opportunity for dual/concurrent credit is offered through Asnuntuck Community College, also in alignment with CTE. High school students enrolled in business and other CTE programs can also earn high school/college credit simultaneously with Asnuntuck Community College and UConn. Programs of this nature accelerate a student's career pathway to either a two- or four-year college.

Manchester Community College offers a highly successful Middle College Magnet High School, Great Path Academy, which is built on their campus and linked to the main college building. Great Path Academy is a recipient of Perkins funds to support CTE programs. Students at the magnet school have full access to college courses for which they qualify, and many graduate from high school with more than 30 college credits, allowing accelerated college completion. The college is able to use the high school, including its classrooms, gymnasium, and auditorium, in the afternoons and evenings after the high school day ends.

Manchester and Quinebaug Valley Community College host two of Connecticut's five magnet high schools located on college campuses and provide opportunities for concurrent enrollment. The other campuses are Capital Community College, the University of Hartford, and the University of New Haven. Goodwin College has opened a magnet high school with a focus on Environmental Sciences on its campus.

Taken as a whole, these concurrent enrollment programs in Connecticut provide highly successful models for high-quality early college and career preparation for thousands of students across the state each year.

Innovation Grants

The CSDE awarded Innovation Grants in 2009-2010 under the Reserve Section for the following purposes:

- Developing Public Health Concepts and Career Opportunities (Medical Careers)
- E-Commerce/Entrepreneurship in the Comprehensive High School
- Cooperative Work Education in the 21st Century
- Personal Finance Literacy in the Comprehensive High School
- Implementation of the Electronic Student Success Plan
- Continued Implementation of the Electronic Student Success Plan Aligned with the Capstone Project*
- Developing Public Health Concepts and Career Opportunities (Family Consumer Sciences)

See work with **Partnerships** above.

See improvements to the **CTE Assessment** system b below.

Progress in Developing and Implementing Technical Skill Assessments

Future plans are to integrate virtual performance-based components to the skills assessment system. Presently, Connecticut has ten years of longitudinal data. The following improvements are underway for the current and upcoming year:

1) Connecticut CTE Performance Standards and Competencies – 2011 Revision

With the recent (2007-09) revision of national standards for CTE conducted by the national professional teacher organizations, Connecticut conducted a comprehensive revision of its entire package of Performance Standards and Competencies during the 2009-10 school year incorporating the new national CTE standards.

2) Connecticut Statewide Assessment Program – Version VI

Connecticut is in the final stages of approving Version VI of the statewide CTE assessment that includes an increase to 20 areas of concentration. Areas of Concentration are those CTE instructional categories with the highest statewide enrollment rates, requiring alignment with national/state performance standards and competencies. This is the third version of the state CTE testing program to contextually apply the Academic Foundation Competencies, the same reading and mathematics competencies utilized in the Connecticut academic testing program. Each academic competency is contextually applied to all of the 20 areas of concentrations.

3) On-Testing Assessment

Version VI of the Statewide CTE assessment program will be fully implemented as an on-line testing program. All secondary schools have been registered and logged into the statewide CTE testing network. All students identified as “concentrators” must be tested during the four week testing window. Each school receives three categories of score reports within ten days of the completion of testing including the Academic Foundation Competency Report, (individual) Concentrator Competency (by competency) Report, and the Summary Area of Concentrator Report. The score report package is designed to improve teaching and learning, guide curricular revision and provide numerical scores as final examination scores, the waiver of final examination, and/or a proportional value of the end of the year grade.

Implementation of State Program Improvement Plans

The Connecticut CSDE has exceeded all performance levels negotiated and approved on the FAUPL in 2009-10 for secondary education. The CSDE will continue monitor district performance and provide technical assistance to increase performance levels.

Implementation of Local Program Improvement Plans

The CSDE has a continuous improvement district review system in place which is not located on the state website at: <http://www.CSDE.ct.gov/CSDE/cwp/view.asp?a=2678&q=320802&CSDEPNavCtr=|#45488> At this site, there is a power point with instructions, forms for completion, district yearly performance levels, and other supportive resources. Districts/community colleges are measured by using the federally agreed upon local performance targets. Following the federal model, districts are required to develop improvement strategies for targets not meet. The districts/community colleges are also required to submit any changes to the Perkins five-year plan.

Tech Prep Award Information

The Connecticut CSDE has consolidated Perkins basic and Tech Prep funds. Comparable to the tech prep approach are articulations with the community college system and the University of Connecticut which are offered to students enrolled in career and technical education programs. The consolidation of Title I and Title II funds has allowed a shared vision and mission working toward common goals in the community college system. The programs has been renamed College Career Pathways. These linkages are critical to the design of the state Student Success Plan that offers a roadmap to postsecondary education and dual concurrent credit.

Core Indicator Performance Strategies

Although, the Connecticut has met or exceeded all of the core indicators performance levels, work to increase performance for all targets continues.

Connecticut Community Colleges Plan for Performance Improvement 2010-2011 Perkins Performance Benchmarks

The Connecticut Community College System by individual college has reported the improvement strategies below:

Asnuntuck:

- Additional professional development activities for faculty and staff.
- The College Careers Pathways Program works with the Manufacturing area in particular to provide CTE students access, information and encouragement, which in turn leads to retention and education on transfer opportunities.
- Scholarship opportunities, in addition to exploration activities at the college, will encourage students to investigate degrees and careers outside of their traditional boundaries.
- The Academic Skills Center offers "non-traditional" students additional support in terms of their academic pursuits.

Capital:

- Fund Academic Advisors to advise students in CTE programs
- Support faculty and staff professional development
- Increase partnerships with 4-year institutions and develop new articulation agreements
- Improve and support the college's marketing efforts to attract students to the college and promote CTE programs
- Bring high school students to the college for "Capital Days" to learn about the various degree programs offered and the college

Gateway:

- Develop certificate programs that could be completed in a short period of time and feed into A.S. and B/S. programs
- Implementation of the dual admissions agreement between Southern Connecticut State University and the College
- Enhance support for career services [5P1 and 5P2] Increase recruitment activities for female students in male dominant occupations and increase recruitment activities for male students in female dominant occupations

Housatonic:

- Design and fund Academic Associate position to provide technical and career support for the CCP Health Careers pathway. Continue to fund Personal Finance Investment Club Developer position to run student clubs at three high schools. Sponsor and host a STEM Girls and Technology Expo for 7th and 8th grade girls.

- Continue to fund the position of Perkins Transition Retention Specialist to assist CTE students in selecting CTE majors and in graduating from CTE fields. Design and present career workshops with CCP faculty in the Business, Manufacturing and Early Childhood Education pathways.
- Provide the Bridges career assessments to CCP students to explore careers in the Health and Medical fields; and the Business majors. Invite and advise CCP and CTE students in participating in college-wide job fairs.

Manchester:

- The process of integrating academic study with technical skill development is dependent on providing students with opportunities for classroom use of technology and the opportunity to apply classroom skills in work environments.
- Improve student retention in Accounting, Computer Applications, and Paralegal courses and to improve student grade point averages and graduation rates for Accounting, Computer Applications, and Paralegal students by providing additional tutoring hours that would not be otherwise available.
- Increase cooperative education, internship and career employment opportunities for students in engineering, computer science and technology programs including those related to graphic design and multimedia by increasing the capability of the office to recruit employers and students, and to develop related opportunities for students.

Middlesex:

- An Advising Coordinator oversees the academic advising process and two advising workshops are offered each year to all faculty and staff.
- Five-year program reviews for all occupational programs help to assure that curriculums meet the needs of Connecticut's business and industry.

Naugatuck Valley:

- Student worker funded to oversee work in gardens and Greenhouse.
- Job training through equipment purchased for NVCC Greenhouse and gardens planted and maintained throughout the campus.

Northwestern:

- Collaboration with Warner Theatre to offer introductory course in technical stagecraft.
- Place Banner hold on students with 45 or more credits to ensure students receive appropriate advising as they near graduation.
- Career exposure for students at Community Day where local employers and community service organizations are invited to campus.

Norwalk:

- Tutoring of students in Allied Health courses.
- Strengthen teaching skills and credentials of supervisors of student internships in PTA and increase HS student awareness of PTA careers.
- Provide work-based service learning.
- Provide stipends for speakers on non-traditional careers for women.

Quinebaug Valley:

- Purchase software for Fine Arts Photography and Digital Arts program.
- Provide "First Year Experience" class for Middle College students preparing to take college level classes.

- Support Military Career Days.
- Promote Pathways to Teaching Program for college graduates and new students.
- Conduct Plastics Expo to expose high school students to careers in plastics technology and other aspects of business. Students interact with previous students in the programs and with business owners and technology experts.

Three Rivers:

- Program Coordinators will review degree programs looking for the possibility of adding career appropriate certificates.
- The College continues to work with public and private 4-year postsecondary institutions in the state to develop articulation agreements to increase transfer opportunities for students wishing to continue their education beyond the community college.
- Three Rivers looks to maintain a strong connection with employers through the use of advisory boards for many of its career programs such as the Engineering Technologies, Nursing, and Business.
- This is an ongoing concern that has become a special emphasis area for the College's recruiting committee.

Tunxis:

- Expanding the use of ePortfolio for academic advising and outcomes assessment of career education students will improve their successful retention and completion of career and technical education courses.
- Increased tutoring to help students complete math and science courses in both high school and at the community college. Completion rates in mathematics remain one of the largest obstacles to gaining a credential in career and technical education.
- Our focus on developing the use of student ePortfolios will enable instructors to train students on developing a successful long term academic plan. This could include a plan-of-study for transfer to the baccalaureate level or preparing a portfolio to demonstrate their skills to a potential employer.

Conclusion

The Connecticut economy has taken its toll on state resources. However, career technical education is moving forward with initiatives to benefit, NCLB, longitudinal data systems, improving teacher quality, and assessment. A great deal of effort is provided by few CSDE staff to accommodate a small state with a very dense population and approximately 169 school districts. CSDE staff will persevere to strive for the same positive results in 2010-11. We are looking forward to a productive year.