

CONNECTICUT STATE DEPARTMENT OF EDUCATION



CONNECTICUT ANNUAL PERFORMANCE REPORT For Vocational And Technical Education State-Administered Programs Under The Carl D. Perkins Vocational And Technical Education Act Of 1998 (P. L. 105-332)

Fiscal Year 2005

**Division of Teaching and Learning Programs and Services
165 Capitol Avenue
Hartford, CT 06106**

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CARL D. PERKINS VOCATIONAL AND TECHNICAL EDUCATION ACT OF 1998

CONNECTICUT ANNUAL PERFORMANCE REPORT

Executive Summary

The Connecticut State Department of Education (CSDE), Bureau of Early Childhood, Career and Adult Education, is responsible for the administration of the Carl D. Perkins Vocational and Technical Education Act of 1998. The Bureau oversees Early Childhood, Career and Adult Education programs. The Career and Technical Education (CTE) Unit has representation on the *No Child Left Behind* State Department of Education committee to collaborate on evaluation processes and overall school improvements across all academic and career and technical education areas.

The Career and Technology Education Unit is:

- Responsible for the development and administration of adjusted levels of performance and evaluation;
- Committed to incorporating academic and employability skills into all career and technical subject areas;
- Encouraging cooperation with the business community and institutions of higher education;
- Providing and encouraging curriculum and professional development activities that enable educators to use cutting edge techniques and state-of-the-art equipment;
- Increasing students' awareness of occupational choices and preparing them for high paying high skill employment and/or transition to higher education;
- Responsible for the development of the State Plan and for submission of the Annual Performance Report and all other reports to the Secretary;
- Responsible for the review and evaluation of all Perkins-funded career and technical education programs;
- The coordination and implementation of educational technology and the integration of technology both in academic and career and technical education subject areas; and
- Responsible for providing standardized guidelines, tools and technical assistance for safe, structured work-based learning opportunities available to all CTE students.

During 2004-2005, state leadership funds were allocated to support professional development and technical assistance activities for state, regional and local partners. Particular emphasis was dedicated to the high schools that were identified as needing improvement through the newly established CTE Performance Compliance Review (PCR) selection process.

Perkins Administration

- During this period of reauthorization, the Career and Technical Education state plan were revised, and core indicator performance levels were renegotiated for the fiscal FY2005 grant continuation year.
- All Requests for Proposals (RFP) were revised. The unit utilized student/school performance data to focus Perkins funds for FY05. The RFP focus areas include: academic integration, development of career and technical education advisory boards, development of career and technical education student organizations and work-based/career development opportunities for students.

- A data-driven process for selection of career and technical education schools needing improvement was implemented in FY04-05. Eighteen schools were monitored and provided intensive professional development. For 2005-2006, fifteen high schools have been identified for review and will be provided workshops similar intensity as was provided to last year's monitored group. Continuous improvement workshops are being conducted for the high schools that were under review in 2004-2005.
 - The Connecticut Women's Education and Legal Fund (CWEALF) is the non-traditional grant recipient charged with efforts in attracting students to non-traditional courses of study. The efforts in 2004-2005 included:
 1. Providing workshops for existing and student CTE teachers in attracting and retaining secondary students into nontraditional career and technical education programs and careers.
 2. Reviewed the nontraditional components of all 2004 grant applications and assisted 35% of the neediest districts in developing a formal plan for overcoming inequities.
 3. Provide best practice interdisciplinary CTE models to districts designed to recruit and retain non-traditional students.
 4. Provide hard copy approach to attract CTE non-traditional students.
- During this period of reauthorization, the state plan had to be revised, and core indicator performance levels were renegotiated for the FY05 grant continuation year.
 - On-going efforts are underway to increase the number of districts offering Project Lead the Way (PLW) programs.
 - The competitive Teacher Preparation grant, in its fourth year awarded to the University of Connecticut is utilized for responding to the shortage area of Family and Consumer Science Teachers.
 - The Bureau continues to collaborate with Jump Start a nonprofit organization whose major objective is to encourage enrichment of basic personal financial management skills.

Rural Competitive Grant

In accordance with the Carl D. Perkins Sec. 112 (c)(1) six districts were awarded a two-year grant for innovative or enhancement programs based on rural status validated by the U.S. Census Bureau locale codes 7 and 8 and high numbers of CTE students. Year II concluded in 2005 with the following results. Program development and improvement in the six districts were as follows:

- Update of technology education programs to include Project Lead the Way and Quark Desktop, Auto CAD and CISCO courses.
- A marked increase in student performance in the state academic performance standardized test as result of funding utilized for targeted instruction to increase proficiency of vocational agriculture students. District will provide professional development to other districts to replicate the success.
- The purchase and utilization of a DANA wireless lab allows Vocational Agriculture students to record, save and revise work and internship information with instructor and peers.
- Vocational Agriculture students were provided opportunities to participate in a variety of work-based experiences.
- Interdisciplinary programs were developed between art, language arts, technology and business departments to produce student digital portfolios, yearbook and newspaper projects.
- Complete conversion of a traditional foods program to a professional culinary program taught by a professional chef.

Continual technical assistance is provided to local school districts and the community college system in meeting the negotiated performance levels for CTE. Specifically, during the statewide meetings, attention will be given to partnerships with business and industry, collection of student data and improvement of

student performance. The reserve grant concept was created with the intention of balancing the needs of rural and urban populations. This funding source should assist in the advancement of goals established by the Connecticut State Board of Education and Perkins legislation in closing the achievement gap for career and technical education students in rural places.

In 2005-2006, six one-year Rural Competitive Grants were awarded to five qualifying districts for projects in pre-engineering, culinary arts, personal finance and vocational agriculture student digital portfolio development.

Core Indicator Performance 2004-2005

Secondary

All secondary core indicator negotiated performance levels have been exceeded with the exception of 1S2, Secondary Technical Attainment. Since the inception of the state CTE assessment system five years ago, the number of concentrators has increased by more than 40%. Aware of the USDE future directive to measure CTE concentrators exclusively for the core indicators performance level, Connecticut State Department stepped up its efforts in 2004-2005 to guide local districts in increasing the number of student concentrators. In 2004-2005, the number of concentrators increased by 12.2%. Technical assistance and professional development efforts focused on matching state and national standards tested in the CTE assessment system. It should be noted that in order to increase CTE academic rigor local districts were guided in establishing concentration areas combining both CTE and academic course to achieve CTE concentration areas. It was anticipated that there would be a learning curve involved in this process in identifying and preparing students for the state CTE assessment. This learning process contributed to 51.73% of the students meeting goal expectation on 1S2. With continued technical assistance and professional development, student performance in 1S2 will increase in the future on the CTE skill assessment.

The Bureau continues to require information in the annual Perkins grant application pertaining to student and school performance for the core indicators. Districts are requested to post their specific performance in the grant proposal over a three-year period to determine the need for strategic planning and implementation. During 2004-2005 high schools were identified for the PCR based on academic performance, skill attainment and number of concentrators. To more closely align to NCLB, CTE student graduation rates will become a fourth criterion in 2005-2006. This process directly relates to district core indicator performance and will be discussed under Section I (c).

The State of Connecticut has completed Year V of the standardized assessment system for the seven career and technical education program areas, reflecting eleven of the sixteen federally-identified career cluster areas. The Bureau of Early Childhood, Career and Adult Education in partnership with the state career and technical education teachers and the National Occupational Competency Testing Institute (NOCTI) developed 19 statewide assessments, covering all the career and technical education program areas, based on the Connecticut Standards and Performance Measures. Student performance over the four years will be reported in Section II. Plans are now underway to revise the 19 subject specific tests to include an academic core related to each subject area respectively. Connecticut established a 65% mastery score on any of the assessments as the competency threshold.

Anticipating increased accountability requirements in the re-authorization of the Carl D. Perkins III legislation in 2005, the Connecticut State Department of Education continues to focus on the task of determining "quality" in high school career and technical education programs. Linking the components of our state administrative package for career and technical education, including the Perkins grant application, statewide professional development, CTE student organizations, establishment of CTE

advisory boards, program compliance review and our statewide CTE assessment program, we see clear evidence that progress is being made in improving the quality of career and technical education.

Please Note Regarding Core Indicator 2S1, Secondary High School Completion:

In 2004-2005, there was a significant increase in 2S1, Secondary High School Completion, due to a change in the state denominator definition. The state negotiated this change with the Office of Vocational and Adult Education program in 2005. The indicator now presents CTE 12th grade student concentrators only rather than the previous approach which included all CTE student concentrators grades 9-12.

Postsecondary

Performance targets (2004-2005) for the Connecticut Community Colleges in goal areas 1P1 Academic Attainment, 1P2 Skill Attainment and 2P1 Completion were set at 13.42%. The three targets were not met as the achieved performance level was 12.37%. The difference of 1.05% was statistically non-significant difference.

This performance level achieved is roughly equivalent to that achieved by all Connecticut Community College students combined for the same cohort year (12%) and only slightly less than the achievement level of national peers (14%).

The measures assess the performance of 10% of the total career and technical education students enrolled in the fall of 2001, (students who were expected to complete in 150% of normal time which was 2005). In the fall of 2001, first-time, full-time degree seeking career and technical education students formed a cohort of 1,762 students; or 10% of the 17,372 career and technical education students enrolled that fall. The measure fails to assess the performance of a large enough sample of career and technical education students to allow for inferences other than results attributable to chance.

These indicators of achievement or completion should be changed so that there is a national standard for the measurement approach for consistency.

Improvement Strategies

Improvement strategies for FY 2004-2005 are encouraged through: 1) our professional development plan, 2) program compliance review process, and 3) regional and state technical assistance meetings.

The Connecticut Women's Educational and Legal Fund (CWEALF), a nonprofit community based organization dedicated to promoting gender equity, has collaborated with the Connecticut State Department of Education in implementing a number of activities. CSDE awarded a gender equity grant to CWEALF to help support continued research and activities.

State improvement strategies are described under State Leadership and in the state Professional Development Plan.

I. Program Administration

a. Report on State Administration:

The Connecticut State Department of Education, Bureau of Early Childhood, Career and Adult Education is responsible for administering the Carl D. Perkins Vocational and Technical Education Act of 1998. Under the Perkins Act, funds are made available to local education agencies, Regional Education Service Centers, the Connecticut Technical High School System, the Department of Corrections and the Community Colleges.

Allocations to the local education agencies, Regional Education Service Centers, the Connecticut Technical High School System, the Department of Corrections and the Community Colleges are determined by the formula outlined in the Connecticut State Plan. If available, final allocations are forward to the grantees, to allow them to revise their application and budget to reflect the final allocation prior to the approval letter being mailed. Individual technical assistants from the Bureau of Early Childhood, Career and Adult Education are assigned to different regions of the state and they are responsible to provide assistance for their assigned content area at both the secondary and postsecondary levels.

The Bureau is responsible for the development and administration of adjusted levels of performance including assessment and evaluation, program compliance review, tech prep, professional development, program improvement, technical assistance, career and technical student organizations, and data collection.

It is the Bureau's mission to increase students' awareness of occupational choices and prepare them for high paying high skill employment and/or transition to higher education, utilizing a K-12 developmental career awareness and exploration approach coupled with a continuum of structured work-based learning opportunities. CTE consultants who are content area experts, provide leadership and technical assistance in the following subject areas: agriculture science and technology; business and finance technology; cooperative work education; family and consumer sciences; health occupations; marketing education; and technology education.

In support of both the plan and fulfilling the mission, the Bureau is engaged in an ongoing process to examine workplace needs and the strategies necessary to address them. Career and technical education and the programs implemented under the Perkins Act are essential elements to meet the needs of Connecticut. Thus, the coordination of the implementation process is based in part on a continuous quality improvement model that responds to the needs of the individual school districts.

e. Report on State Leadership:

- The professional development plan for the eighteen identified schools focused on academic integration. National academic integration models were presented to the schools including the International Center for Educational Leadership (ICLE), Center for Occupational Research and Development (CORD), and Project Lead the Way (PLW). The models were also demonstrated at a statewide event in spring 2005.
- Career and Technical Education is represented as a contributing member to both the NCLB and High School Initiative Committees.
- Career and Technical Education is a founding member of the CT Youth Vision Team, a statewide team working with the federal Departments of Labor, Education, Juvenile Justice and Human Services to develop statewide seamless, non-duplicative systems of youth services in all 50 states.

- Career and Technical Education is now represented on the Governor's CT Employment and Training Commission (CETC), Youth Sub-committee.
- **Skill Proficiency**

The number of CTE students assessed for skill proficiency for fiscal year FY05 was 8,366. The number of concentrators meeting the assessment goal of 65% was 4,174 or 49.89%. Since implementation of the assessment system in 1999, the number of student concentrators who are assessed annually has increased by over 40%. The Bureau now has five years of comparable data on student performance for career and technical education skill proficiency. See Attachment VII Summary of Assessment Results for FY05.

Academic Attainment of CTE Students

On the 2005 Connecticut Academic Achievement Test (CAPT), 28.9% of the CTE students taking all four subtests: Mathematics, Science, Reading Across the Disciplines and Writing Across the Disciplines, attained the proficient level as compared to the overall state performance level of 31.1%. CT CTE student performance of 28.9% has well exceeded the U.S. Department of Education CT agreed upon performance level for academic performance of 21.18%. Further investigation is planned in the many districts where CTE students outperform non-CTE students. It should be noted that, based on the CAPT 2005 report, the number of Connecticut students enrolled in CTE courses by the 10th grade outnumber those not enrolled in CTE in many districts.

Accomplishments by CTE Area:

Family and Consumer Sciences (FCS)

- The competitive Teacher Preparation grant in its fourth year provided to the University of Connecticut is utilized for the shortage area of Family and Consumer Science Teachers while providing high schools student's dual credit, high school and college credit.
- A new student advisor for Family, Career and Community Leaders of America has been selected for school year 2005-2006.
- A new family and consumer sciences advisory board has been established to update the FCS framework.
- Workshops were held regionally on integrating math into the FCS curriculum and developing e-portfolios.

Medical Careers

- Under medical careers, two new organizations have developed: Health Occupations Students of America (HOSA) now chartered by the national organization for students and the Connecticut Association of Health Occupations Educators (CAHOE) professional organization.
- A new student advisor for HOSA has been selected for school year 2005-2006.
- A new advisory board has been established whose charge will be to revisit the Medical Career framework.
- The Certified Nurse's Aide Assessment for 2005-2006 was updated.
- Two new Medical Careers programs are now being piloted in Wallingford and Stratford.

Business Finance and Technology Education

- The department is part of the CT Jumpstart Coalition for Personal Financial Literacy. The coalition's task is to educate students on making financial decisions concerning credit cards, loans, savings, and other money matters. The Coalition is comprised of the State Treasurer's

Office, CT State Department of Education, the Banking Commission, Junior Achievement, the Connecticut Consumer Credit Council and Bank of America. A Youth Personal Finance conference was provided by the SDE in May 2005.

Cooperative Work Education (CWE)

Number of Cooperative Work Education Programs:

Agriculture	19
Business Education	10
Cooperative Work Education/ Diversified Occupations	40*
Family & Consumer Sciences	10
Marketing Education	22
Medical Careers	18
Technology Education	<u>17</u>
Total Cooperative Work Education Programs	<u>136</u>

* includes 18 Technical High Schools

- One of the goals for the CWE programs during 2004-05 was to promote the benefits of the CWE programs. The CWE program co-sponsored a state-wide conference in the fall with the Tech Prep program. This was a natural fit. The Tech Prep program has a work-based component included in their program. In addition, members of the CWE association presented at the spring, Career & Technical Education Workshop.
- Connecticut teachers can access three on-line university programs for CWE teacher certification. University of Massachusetts was added this year to accompany the University of New Haven and the University of Nebraska.

During the 2004 – 2005 fiscal year, the Connecticut State Department of Education, Bureau of Early Childhood, Career and Adult Education provided State Leadership through the delivery of four distinct levels of professional development and technical assistance to career and technical education personnel, including:

- **Local** customized technical assistance provided to districts by SDE/CTE consultants who are subject-area specialists in Connecticut’s seven CTE areas, plus Tech Prep and School Counseling/Career Development;
- **Regional** meetings and workshops facilitated by SDE/CTE Consultants, who in addition to being subject-area specialists for the entire state, are also each assigned to one of eight regions in the state identified by alpha letters A through G as Regional Technical Assistants;
- **Statewide** conferences and seminars identified in our professional development plan contracted through the Capitol Region Education Council that coordinates and delivers the activities; and
- **State-level** collaborative conferences planned and implemented *with* other state agencies, with SDE/CTE taking a leadership role.

Local level Leadership often takes the form of in-district workshops in which the SDE/CTE subject-area specialist (or topical specialist as in tech prep or guidance) facilitates curriculum revision based upon the

integration of content standards contained in the revised CTE curriculum frameworks, or other pertinent information. In larger urban districts, several schools will often come together for these events. When feasible, local educators/leaders are trained as peer trainers using the train the trainer model. Other examples of local leadership are the coordination of community resources (both fiscal and human resources) facilitated by the SDE/CTE regional consultant working with various community and business leadership organizations to identify a common agenda for all youth. Examples of these groups are: Jr. Achievement, Connecticut Career Choices Local Pilot Sites, the Workforce Investment Boards/Youth Councils, local Chambers of Commerce and Rotary Clubs.

Regional Technical Assistance is in the form of partnership meetings that are led and facilitated by the assigned SDE/CTE Regional Consultant on a regular basis throughout the year. The size, composition and schedule of these regional partnerships vary according to the history, geographical makeup and stated objectives of the individual region and its partners. All partnerships receive current and relevant information and assistance on the annual CTE student assessment, professional development, work-based learning, career development, future funding and other pertinent information, both directly through meetings and workshops and electronically through e-mail.

Statewide Integrated Professional Development Plan for the 2004-2005 year provided statewide leadership largely on the integration of thematic activities applicable to all learners including students in, Career and Technical Education, School-to-Career (STC) and Tech Prep. However, activities specific to particular student groups were also offered when necessary and practical. While the Capitol Region Education Council delivered the state-level professional development activities, these activities were identified, designed and planned by an SDE state-level PD committee comprised of representatives from each region, business and industry, and post-secondary education. The professional development Committee meets quarterly at a Career and Technical Education statewide meeting and was co-chaired by the CREC Program Manager and the State Perkins Program Manager.

State-level collaborative leadership, continued as SDE/CTE staff worked together as partners with other state-level organizations in the planning and implementing of major events and the on-going sharing of information. Examples of this collaboration include:

- ***Youth Councils- An Exemplary Model of Program Integration at the Local Level:*** Building on the state-wide Youth Forum that was held at Gateway Community College in New Haven for all program staff in the state who work with youth in both education as well as employment and training programs, in 2004-2005 representatives from the State Departments of Education and Labor, as well as Youth Councils and the Youth Committee of the CT Employment and Training Commission (CETC), met to develop a plan that more closely aligns the work of these separate agencies and their funding streams. The Chair of the Youth Council of the New Haven Workforce Alliance, a nationally-acclaimed Youth Council who has successfully integrated its program goals with those of existing in and out-of school programs for youth in the region, is taking leadership in this endeavor and has met with representatives of the CTE Unit to begin this dialogue;
- ***Together with State college and university system***, the Bureau of Curriculum and Instruction actively pursued alternate routes to certification to address shortage areas within career and technical education in the state of Connecticut. Avenues investigated and under development identified opportunities for alternate route and on-line/distance learning certification courses;
- Through the vehicle of the CTE Career Development Committee, all three state-level professional counseling organizations (CCA - CT Counseling Association; CCCDA - CT Career Counselors Development Association; CSCA - CT School Counseling Association) now plan and deliver

professional development opportunities addressing comprehensive career development, in grades kindergarten through 16, through collaborative events, as well as through individual workshops offered in each organizations own annual conference; and

- The CT State Youth Safety Team, a collaboration of the CT State Departments of Education (CTE Unit), Labor and Public Health along with CT-OSHA and CREC, provides leadership, training and information on youth safety in the work place through train-the-trainer sessions on its youth safety curriculum, "Worksafe!".

In addition to the professional development activities summarized above, CTE Consultants also:

- Conducted quarterly Perkins information sessions;
- Conducted regional briefing/training sessions for high schools administrators for the statewide CTE assessment;
- Conducted eighteen Program Compliance Reviews of Perkins supported programs;
- Provided fiscal support to the following career and technical student organizations;

DECA	FBLA
FCCLA	FFA
Skills-USA	TSA
HOSA	

- Promoted guidance activities that focus on career awareness and academic and career and technical counseling that prepare students for postsecondary education and/or high skill/high wage jobs in high demand and/or emerging occupations;
- Promoted and expanded the number of higher education Tech Prep programs; and
- Promoted collaboration with business and industry in order to familiarize teachers with current occupational requirements and high technology equipment and techniques; to provide students with work experiences related to their areas of concentration, and to develop procedures that encourage area employers, parents and community groups to assist with the development and evaluation of curricula.

c. Implications For Next Fiscal Year/State Plan – FY 2006

- Modifications were made to the state plan that described state efforts to collect secondary and postsecondary disaggregated tech prep data.
- Plans include an on-line optional survey for postsecondary education students to complete when retrieving grades on-line from the community college system and demographic student data from the CTE assessment system matched with the state academic testing system.
- The state has stepped up efforts to insure that Tech Prep students are fully articulated with higher levels of math, science and language arts along with the CTE courses. This policy may initially reduce the number of Tech Prep students identified by local school districts but will provide a more accurate picture of a true Tech Prep student by state definition.
- Data driven decision-making will drive policies and initiatives to improve CTE programs throughout the state.
- Work will begin on the revision of all state CTE performance standards and competencies for use on the career and technical education assessment system.

Other Implications:

Plans within the Bureau of Early Childhood, Career and Adult Education for the current year, 2005-2006 include:

- State Department of Education High School Reform committee includes team members from career and technical education whose mission is to insure that Connecticut students are well prepared academically with the skills to enter postsecondary education and the global workplace.
- The Bureau workshops and conference strands focused on data-driven decision-making, career development, standards-based instruction, advisory boards, work-based learning, and career and technical student organizations.
- Through the grant application process districts are required to set aside a minimum of 5% of their grant funding for state approved professional development. See the professional development plan below.
- The eligible districts will continue to focus on the core indicators and to ensure progress and improvement in all areas. Plans are to focus grant proposal monies allotted to LEAs in order to achieve the objectives outlined in the bureau professional development plan.

**The Connecticut State Department of Education
Division of Teaching and Learning, Programs and Services
Career Education Unit**

State Approved Professional Development for Career and Technical Education
2005-2006

Event	Date	Location	Contact for further details
Technology Training for Business Education and Technology Education Teachers - MOS	November 17, 2005	Rensselaer 275 Windsor Street Hartford, CT	Betsy Sampson (860) 509-3649 bsampson@crec.org
Technology Training for Business Education and Technology Education Teachers – Advanced Excel	December 8, 2005	Rensselaer 275 Windsor Street Hartford, CT	Betsy Sampson (860) 509-3649 bsampson@crec.org
Connecticut Marketing Educators Association	December 8, 2005	Hartford Club	Stephen Hoag, SDE (860) 713-6764 stephen.hoag@po.state.ct.us
Automotive NATEF & AYES Follow up Next Steps to Certification	December 13, 2005 9:00 am. – 2:00 pm.	Gateway Community College, North Haven	Greg Kane, SDE (860) 713-6756 Gregory.kane@po.state.ct.us
Increasing Student Achievement in Career and Technical Education – Making Standards Work	December 15, 2005 January 9 th , 2006 & January 19, 2006 8:30 am. – 3:30 pm.	Rensselaer CREC Rensselaer	Maggy Wisniewski, CREC (860) 524-4009 mwisniewski@crec.org

Project Lead the Way Counselor's Conference	January 5 & 6, 2006	Nashua, New Hampshire	Greg Kane, SDE (860) 713-6765 Gregory.kane@po.state.ct.us
Increasing Student Achievement in Career and Technical Education – Data-Driven Decision Making	February 2 nd and February 9 th , 2006 8:30 am. – 3:30 pm	CREC Hartford	Maggy Wisniewski, CREC (860) 524-4009 mwisniewski@crec.org
Technology Training for Business Education and Technology Education Teachers – Multi Media	March 23, 2006 9:30 am. – 2:00 pm.	Rensselaer 275 Windsor Street Hartford, CT	Betsy Sampson (860) 509-3649 bsampson@crec.org
Personal Finance Conference	April 5, 2006 7:45 – 3:00	To be determined	Maggy Wisniewski, CREC (860) 524-4009 Mwisniewski@crec.org
Technology Training for Business Education and Technology Education Teachers – Web Page Design	April 6, 2006	Rensselaer 275 Windsor Street Hartford, CT	Betsy Sampson (860) 509-3649 bsampson@crec.org
Perkins Core Indicators & ED440 Reporting Overview	April 26, 2006 1:30-3:30pm April 28, 2006 9-11:00am April 28, 2006 1-3:00pm	Three Rivers CC Mohegan Campus, Norwich CREC, Hartford ACES, Hamden	June Sanford, SDE (860) 713-6765 June.sanford@po.state.ct.us
CTE Annual Conference	May 2, 2006 7:45 am. – 3:00 pm.	Hartford Convention Center	Maggy Wisniewski, CREC (860) 524-4009 Mwisniewski@crec.org
Connecticut Learns & Works Conference	May 12, 2006 7:30 am. – 3:00 pm.	Waters Edge	http://www.ctdol.state.ct.us/ctlw/index.htm
Family and Consumer Science Curriculum Sessions	November 16, 2006 January 11, 2006 February 9, 2006 March 2, 2006 April 3, 2006 3:30 – 5:30	CREC, Hartford ACES, Hamden LEARN, Old Lyme EASTCONN, Hampton CES, Trumbull	Maggy Wisniewski, CREC (860) 524-4009 Mwisniewski@crec.org
Youth Safety	February 9, 2006 9:00 – 11:30 April 6, 2006 1:00 – 3:30 April 12, 2006 9:00 – 11:30	New Haven area Hartford area Waterbury area	Anne Raymond, CREC (860) 524-4018 araymond@crec.org

School to Career Information Sessions	To be announced	Regional Education Service Centers	Judith Andrews (860) 713-6766 judith.andrews@po.state.ct.us
<i>Outside State Approved Professional Development Designed for Career and Technical Education</i>			
Understanding by Design for Career & Technical Education	Three day series: February 2&3 March 10th	CREC Institute of Teaching & Learning	Shelia Lamenzo (860) 509-3687 http://www.crec.org/tls/index.html
Career & Technical Education Round- tables on: CTSOs, post secondary connections, advisory groups, observing & teacher evaluation		LEARN	Lynn Marie Thompson 860-434-4890 x345 lthompso@learn.k12.ct.us
Helping Students Make Career Choices	November 17 9:00 – 3:00 Snow date: 11/22	EASTCONN Teaching & Learning	(860) 455-0029

Outside State Approved Professional Development

In addition to the professional development opportunities listed above, designed specifically for Career and Technical Education, there are many other professional development and training opportunities available through Connecticut's regional educational service centers and SERC that are relevant to CTE educators engaged in program improvement. This professional development is offered through conferences, workshops and can often be customized to meet your needs. We recommend activities that address the following topics:

- Assessment
- CAPT
- Classroom Instruction That Works
- Classroom Observation
- Curriculum
- Data driven decision making
- Differentiated Instruction
- Educating Students with Disabilities
- Grant Writing
- IDEA
- Inclusion
- Learning Strategies
- Literacy
- Reading
- Technology
- Using Standards
- Writing

Please contact the agencies listed below directly or visit their websites to determine which topics their training covers and how your administrators, teachers and counselors can best access it.

Regional Educational Service Centers

Area Cooperative Educational Services (ACES), Hamden <http://www.aces.k12.ct.us>

Cooperative Educational Services (CES), Trumbull <http://www.ces.k12.ct.us>

Capitol Region Education Council (CREC), Hartford <http://www.crec.org>

EASTCONN, Windham <http://www.eastconn.org>

Education Connection, Litchfield <http://www.educationconnection.k12.ct.us>

LEARN, Old Lyme www.learn.k12.ct.us

SERC, Middletown <http://www.ctserc.org/>

Career and Technical Education Quality Indicators

- **CTE Concentration/Enrollment Ratio:** The percentage of concentrators (students who take at least two credits of a career and technical education sequence in a given instructional program) over the total number of students enrolled in all career and technical education classes.
- **Skill Proficiency:** The percentage of concentrators who score at or above the threshold score of 65% on all of the Connecticut CTE assessments.
- **Academic Attainment:** The percentage of CTE students (taking at least one CTE course) who pass all four sections of the CAPT.

Eighteen schools many of which are urban schools had been identified were provided technical assistance and workshops concentrating on the three major goals found in the professional development plan above.

The Bureau has awarded year two of the Rural Competitive Grant in 2004-2005. The reserve grant concept was created with the intention of balancing the needs of rural and urban populations as well as providing support to districts negatively impacted by changes to the in-state secondary distribution formula. This funding source should assist in the advancement of goals established by the Connecticut State Board of Education and Perkins legislation in closing the achievement gap for career and technical education students in rural places.

When applying for Perkins funds, eligible recipients are required to state how they plan to address deficiencies identified during the assessment. Strategies may include curriculum revision with emphasis on alignment with the adjusted levels of performance, regional employment relevance, hands-on and employability skills, professional development activities that aim to keep instructors, counselors and administrators current with instructional methodology and industry technology and practices and improved business and community involvement. The continued focus will align to the requirements of *No Child Left Behind*, increasing academic rigor throughout CTE programs, and strengthening connections between state high schools and the college system.

II. PROGRAM PERFORMANCE

a. State Performance Summary

All performance data for FY2005 were collected at the end of the 2004-2005 reporting period.

Tech Prep students are included in the state's negotiated performance levels. While in high school, Tech Prep students are tracked using the secondary core indicators and negotiated levels of performance. After matriculating to one of the community colleges, Tech Prep students are then tracked using the postsecondary core indicators and negotiated levels of performance.

Final Agreed-Upon Performance Levels and Actual Performance

In the chart below are the final performance levels agreed upon by the State and the U.S. Department of Education for the year beginning July 1, 2004. These adjusted performance levels are incorporated into the State plan as a condition of approval pursuant to section 113(b)(3)(A)(iii) of the Carl D. Perkins Vocational and Technical Education Act of 1998, 20 U.S.C. 2301 et seq., as amended by Public Law 105-332.

Core Indicator	Measurement Approach	Final Agreed-Upon Performance Levels for 2004-2005	Actual Performance for 2004-2005	Agreed Upon Level 2005-2006
1S1	State Standards and Assessment Systems	19.74%	28.93%	21.18%
1S2	Program Completion	51.74 %	49.90%	51.43%
2S1	State/Local Administrative Data	50.13 %	86.55%	46.01%
3S1	State Developed and Locally Administered Surveys/ Placement Records	93.36 %	94.43%	95.00%
4S1	State/Local Administrative Data	33.48%	37.43%	39.96%
4S2	State/Local Administrative Data	33.48%	34.61%	36.55%
1P1	Academic Attainment	13.42%	12.37%	15.02%
1P2	Skill Proficiency	13.42%	12.37%	15.02%
2P1	State/Local Administrative Data	13.42%	12.37%	15.02%
3P1	State Developed and Locally Administered Surveys/ Placement Forms	92.25 %	94.03%	95.27%
3P2	Administrative Record Exchanges/Matching of Administrative Records	85.61%	92.31%	79.25%
4P1	State/Local Administrative Data	17.94 %	34.16%	29.47%
4P2	State/Local Administrative Data	17.50%	33.49%	32.36%

b. Definition of Connecticut's Concentrator

A concentrator is a student who has completed at least two credits of a career and technical education sequence in a given career and technical education instructional program. The CTE sequence may include academic courses that include CTE competencies in one or more of the 18 areas of concentration, each measured in the statewide CTE assessment program. This sequence should provide students with entry-level, job-related skills and/or the ability to continue in higher education.

Definition of Connecticut's Tech Prep Secondary Student

Has indicated an intent to pursue, and is enrolled in a sequential program of study that includes mathematics, science, communication and a career course within a recognized tech prep education plan that consists, at a minimum of two years of secondary and two years of post secondary study; is carried out under a written articulation agreement; may allow the student to earn post secondary credit while in high school; and leads to a specific two-year certificate, associate degree or a bachelor's degree in a career and technical education field.

Definition of Connecticut's Tech Prep Postsecondary Student

Has participated in the secondary portion of a recognized tech prep education plan that consists, at a minimum, of two years of secondary and post secondary study, is carried out under a written articulation agreement; and leads to a post secondary two-year certificate degree, associate degree or a bachelor's degree in a career and technical education field; and has enrolled in the post secondary portion of that education plan. The student may have earned college credit in the high school in the areas of mathematics, science, communications and a career pathway course.

The definition of a concentrator and a Tech Prep secondary and postsecondary student remains the same as in the previous year.

Definition of Connecticut's Tech Prep Program

Consists of at least two years of secondary and two years of post secondary education and leads to an associate degree or a bachelor's degree in a specific career field; established upon the signing of an articulation agreement between a specific high school and/or Connecticut Technical High School and specific college and/or university. The course pathway toward the degree or certificate, beginning in high school, is a coherent sequence and does not require repetition of the same learning outcomes. A complete Tech Prep curriculum is comprised of courses in high school of math, communications, science, and a career pathway course in a program of study. Where learning outcomes can be established as being identical, college credit may be awarded for the course(s).

Connecticut's Tech Prep Program Profile

In Connecticut, there are 11 statewide Tech Prep consortia consisting of the University of Connecticut and 10 community colleges which in turn provide funding to high schools and the correctional institutions. In 2004-2005, 8,317 students enrolled in Connecticut Community Colleges, representing 122 high schools and CT Technical High Schools. In addition, there were 185 students enrolled at the University of Connecticut.

c. Measurement Approaches and Data Quality Improvement

The Connecticut State Department of Education has established an electronic submission process utilized by LEAs in providing information for core indicator performance directly to the state. The electronic reporting format has been aligned to mirror the federal submission format. Technical assistance was provided to LEAs on this new reporting system. This system was developed in an effort to streamline and improve the quality of data submission.

1S1 – Attainment of Academic Skills Secondary

The State of Connecticut utilizes the Connecticut Academic Performance Test (CAPT) beginning in grade 10 for all students in subject areas including Mathematics, Science, Reading Across the Disciplines and Writing Across the Disciplines. Students not meeting goal in the any of the four areas can repeat tests through the 12th grade. All students including special populations must take the CAPT test. In 2004-2005, the baseline for vocational and technical education students tested was 19.74%. The actual level of performance resulted in 28.93% of the students meeting this goal. This figure was derived from a total number of career and technical education students tested, 22,662 of which 6,557 met the required level of performance in all four areas. Overall, Connecticut students have performed well in comparison with other states in reading, writing and mathematics. Nonetheless, the state endeavors to accelerate the

growth in achievement for all students including those enrolled in career and technical education by promoting practices that directly improve student achievement.

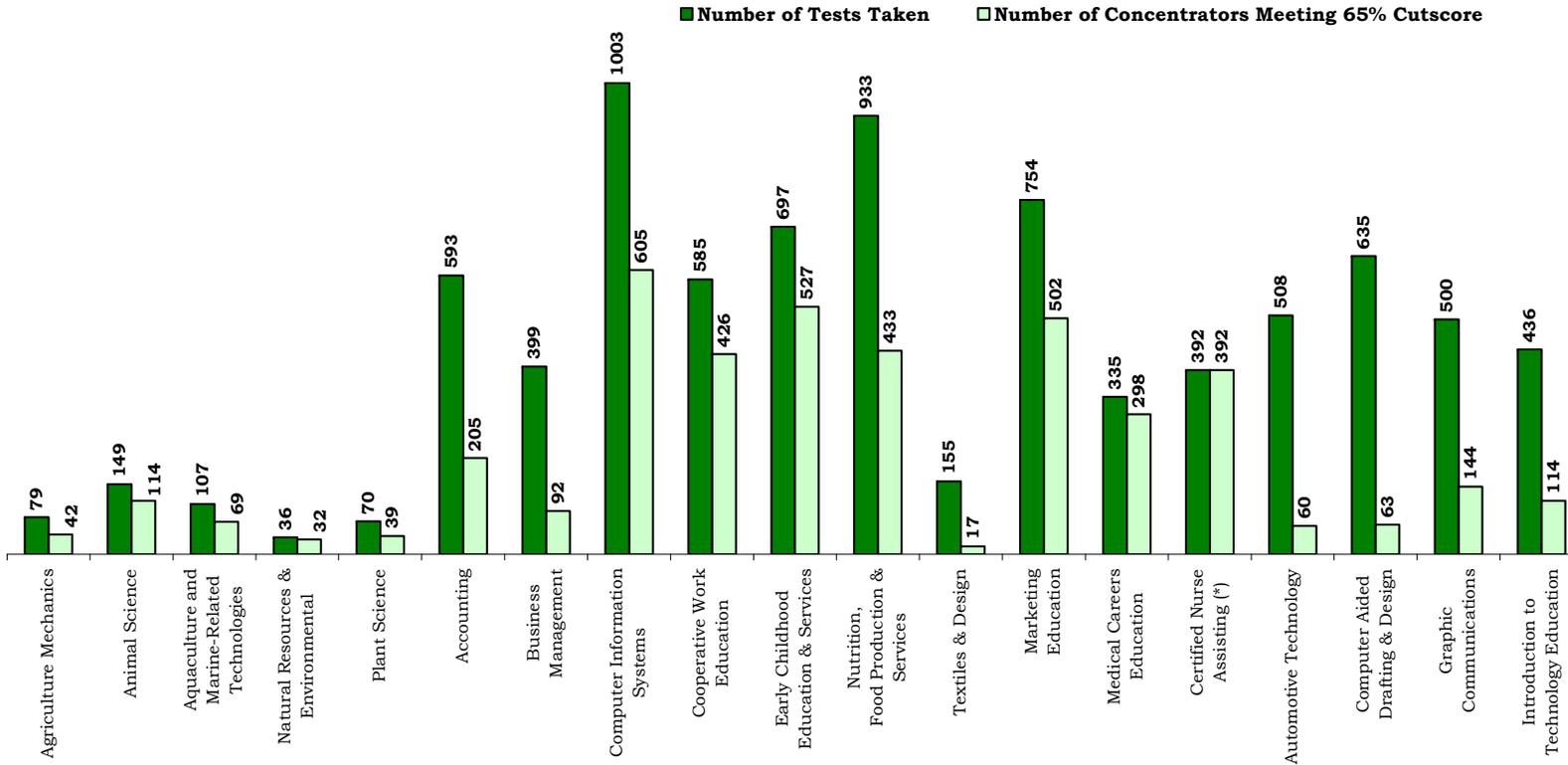
1S2 – State CTE Assessment Program measures Performance Standards and Competencies

The State of Connecticut has established statewide standardized assessments in the seven career and technical education program areas, reflecting eleven of the sixteen career cluster areas. The Bureau of Early Childhood, Career and Adult Education in partnership with the National Occupational Competency Testing Institute (NOCTI) has developed 18 statewide assessments that specifically measure skill proficiency in the 18 areas of concentration in Connecticut's CTE performance standards and competencies. All performance standards, competencies and assessments have undergone a national validation review and revision process.

All Connecticut high schools receiving Perkins funds are required to participate in the career and technical education statewide assessment. In 2005, 136 (87%) of all Connecticut high schools participated in the state assessment in addition to the state correctional institutions and magnet schools. Participation in the third year included the identification of 9,541 concentrators (those students targeted for assessment) of which 8,366 were tested. Connecticut established a 65% score on any of the assessments as the threshold of competency. The 2005 assessments yielded 4,174 students reaching the 65% minimum score that translates to 49.90% reaching the required score for competency.

1S2 Skill Assessment Results
2004-2005

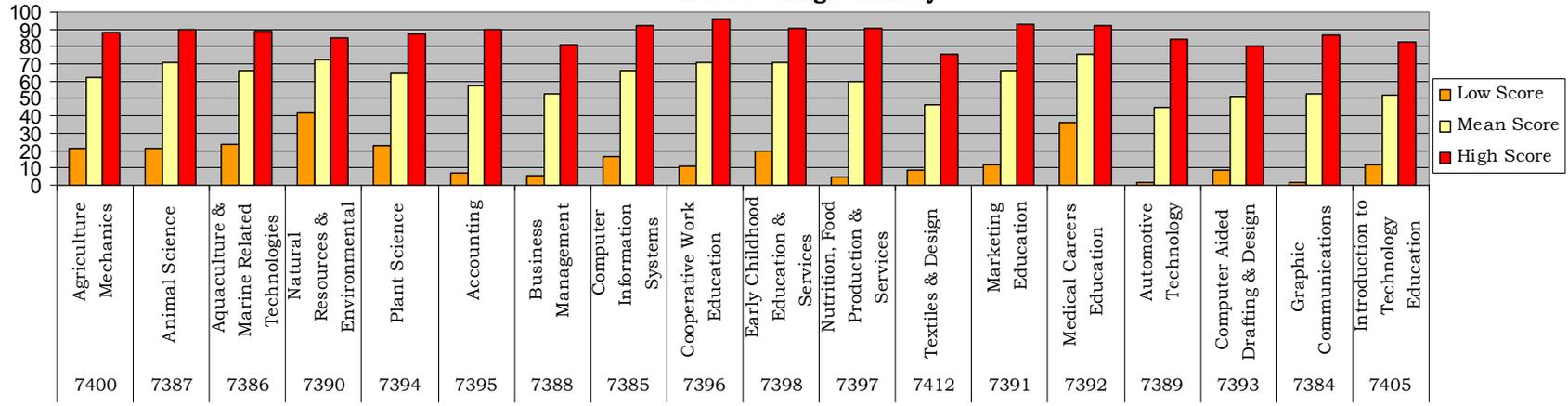
**Connecticut Career and Technical Education
2005 Statewide CTE Assessment
Summary of Concentrators by Test Title and Cutscore**



*Certified Nurse Assisting is a state certification assessment.

**There were 19 test titles administered to 8366 concentrators.
4174 concentrators scored a 65% or higher on the tests.
49.89% met the 65% threshold.**

**Connecticut Career & Technical Education
2005 Statewide CTE Assessment
General Scoring Summary**



Test Code	Test Title	Low Score	Mean Score	High Score
7400	Agriculture Mechanics	21.4	62.0	87.9
7387	Animal Science	21.4	70.8	90
7386	Aquaculture & Marine Related Technologies	23.6	66.0	89.3
7390	Natural Resources & Environmental	41.4	72.5	85
7394	Plant Science	22.9	64.5	87.1
7395	Accounting	6.8	57.3	89.4
7388	Business Management	5.8	52.6	81.2
7385	Computer Information Systems	16.2	65.8	91.9
7396	Cooperative Work Education	10.9	70.6	96.4
7398	Early Childhood Education & Services	20	70.6	90.7
7397	Nutrition, Food Production & Services	5	59.6	90.7
7412	Textiles & Design	8.6	46.3	75.7
7391	Marketing Education	12.1	66.3	92.9
7392	Medical Careers Education	36.3	75.8	91.9
7389	Automotive Technology	1.5	45.0	84
7393	Computer Aided Drafting & Design	8.5	51.0	80.5
7384	Graphic Communications	1.5	52.9	86.6
7405	Introduction to Technology Education	12.2	52.1	82.4

Areas of CTE Skill Assessment by program area:

AGRICULTURE AND NATURAL RESOURCES CAREER AREA

- Agriculture Mechanics Technology
- Animal Science Technology
- Aquaculture & Marine Related Technology
- National Resources & Environmental Technology
- Plant Science Technology

INFORMATION TECHNOLOGY SERVICES CAREER AREA

- Computer-Assisted Design and Drafting
- Graphics Communications

WHOLESALE/RETAIL SALES AND SERVICES CAREER AREA

- Marketing Education

FINANCIAL SERVICES CAREER AREA

- Business Management

CONSTRUCTION, MANUFACTURING, TRANSPORTATION AREAS

- Introduction to Technology Education

HOSPITALITY AND TOURISM CAREER AREA

- Nutrition, Food Production & Services

BUSINESS AND SERVICES CAREER AREA

- Accounting
- Computer Information Systems

HEALTH SERVICES CAREER AREA

- Medical Careers Education

ARTS AND COMMUNICATION SERVICES AREA

- Textiles and Design

TRANSPORTATION SERVICES AREA

- Automotive Technology

EDUCATION & TRAINING SERVICES CAREER AREA

- Cooperative Work Education
- Early Childhood Education & Services

2S1 – State/Local Administrative Data

The total number of 12th grade completers was 10,203 and the total number of all CTE concentrators grade 12 was 11,789 which resulted in a performance level of 86.55%.

3S1 – State Developed and Locally Administered Survey

The total number of concentrators who responded to state administered follow-up surveys pertaining to post graduate status was 8,418 out of a possible 8,915. Of those respondents, 5,833 reported enrollment in some form of postsecondary education or advanced training, which is 65.43% of those responding to the survey. Another 2,585 or 29.00% indicated placement in employment, military service or other.

4S1 – Gender Enrollment in Nontraditional Occupational Programs

Based on state enrollment of males and females in all nontraditional programs (programs in which one gender constitutes less than 25% of those employed) the baseline level for 2004-2005 is 33.48%. The actual level of performance resulted in 37.43%. Continuous efforts are employed throughout the state in attracting students to nontraditional career and technology education programs. The Vocational Equity Research, Training and Evaluation Center (VERTEC) assisted the Department of Education in assessing three priority school districts. VERTEC researchers began their work in the schools, conducted classroom observations, collected enrollment data, surveyed students, and interviewed teachers, guidance counselors and administrators to determine the current status of each school's vocational education program. Strategic planning committees were established in the schools.

4S2 – Gender Completers in Nontraditional Occupational Programs

The total population (all males and females) completing in the 12th grade all programs that were determined to be non-traditional occupational programs of which there were 10,979% students. The number of completers was 3,800 with a performance level of 33.48%. The negotiated level of performance was 34.61%.

d. Effectiveness of Improvement Strategies in Previous Program Year

In the previous year, the planned improvement strategies for each sub-indicator are as follows:

Academic Attainment

Professional Development opportunities and technical assistance was focused on academic integration for targeted high schools needing improvement as well as for all other high schools statewide. National models and best practice models offered at workshops including the Center for Occupational Research and Development (CORD), the International Center for Educational Leadership (ICLE), and Project Lead the Way (PLTW).

In an effort to raise the bar for academic performance of our CTE students, the Bureau of Curriculum and Instruction has been working with all of our academic counterparts in linking our frameworks with the academic frameworks. In some cases, we have been able to enhance the academic subject area frameworks by including elements of our CTE framework. Our CTE frameworks have also been revised to include more rigorous academic skill development.

Vocational and Technical Education Skill Proficiencies

In 2003-2004 Version II of the State CTE Assessment program was introduced that includes a revised package of 18 of written assessments for the seven career and technical education program areas. Each assessment in Version II was validated by individual national business, industry and education committees whose task it was to ensure that each assessment was aligned with the Connecticut performance standards and competencies and all existing national standards. In the spring 2006 work will begin on Version III that will infuse core academic standards assessed throughout all 18 assessment areas with a new area of assessment to be added.

The state data collection system now provides demographic information for tested concentrators that include data/information on the impact of individual tech prep programs, work-based learning activities and career and technical education student organizations on the statewide CTE skill proficiency assessment program.

Completion

Clarification of the state definition of completer versus concentrator was identified. As a result, the state annual reporting process was realigned to federal reporting requirements. Technical assistance to local school districts was provided. The data collection instrument was revised to reflect the definition of completer and concentrator. Our expectations and implication was that planning that the validity of the data would be more reliable.

Placement

Technical assistance has been provided in supporting local school districts in continuing locally established follow-up graduate surveys to capture data for federal reporting. With follow up graduate surveys, the expected impact would be program improvement, identification of trends, and improved student services. Technical assistance will be provided as needed.

Non-Traditional Participation

The Connecticut Women's Education and Legal Fund (CWEALF) a nonprofit community based organization dedicated to promoting gender equity has collaborated with the Connecticut State Department of Education in implementation of the following activities in FY 2005:

- Provided statewide in-service activities to existing career and technical education teachers, alternate route to certification candidates and traditional route students enrolled in career and technical education teacher programs.
- Reviewed the nontraditional components of all 2004-2005 Perkins grant applications and assisted 35% of the neediest districts in developing a formal plan for overcoming inequities during the reviews.
- Disseminated to all districts models of interdisciplinary career and technical education programs designed to recruit and retain nontraditional students in career and technical education programs.
- Disseminated to all districts hard copy designed to attract nontraditional students to career and technical education areas.

e. Improvement Strategies for Next Program Year

The Bureau will continue to promote linkage activities and strategies that connect grant applications, usage of funds, academic achievement, statewide professional development, program compliance, CTE student organizations (activities and competitive events), work-based learning and tech prep.

Professional development opportunities geared specifically for the CTE programs identified annually as needing improvement, those districts in the continuous improvement mode and districts state-wide have been designed to improve state performance on the core indicators. See the State Approved Professional Development Plan above. Also, note that as an eligibility requirement for Perkins funding all districts committed to a set-a-side of 5% for state approved professional development.

Academic Attainment

Academic models including The International Center for Educational Leadership, The Center for Occupational Research and Development, Project Lead the Way and models designed by Doug Reeves represent some of the workshops that will be offered by the State Department of Education to increase CTE student performance on the Connecticut Academic Performance Test (CAPT). CAPT is the independent variable utilized for 1S1.

Vocational and Technical Education Skill Proficiency

The Bureau of Curriculum and Instruction continually offers technical assistance in all program areas for alignment of curricula to state and national standards. Workshops are also offered on teaching strategies. Results of the skill assessment administered to all CTE concentrators each spring are provided to each school district for their use in improvement skill development and proficiency. All Requests for Proposals submitted by local districts and colleges are reviewed by each program specialist to insure program quality and the most effective use of funding for student skill attainment.

Completion

The definition for "completer" remains unchanged. A "completer" is a 12th grade student concentrator who has left secondary education in the reporting year. Technical assistance will be provided to local schools districts in establishing follow-up graduate surveys. Professional development will also be provided as needed.

Non-Traditional Participation

In 2004-2005 CWEALF will continue our research and training. Plans are to reach out to parents and other community members, create and disseminate best practice models, and provide pre-service training to teachers on gender equity in the classroom and nontraditional occupations. CWEALF will collate, analyze and report on areas of inequity within Career and Technical education programs across the state in order to establish a baseline level from which to track improvement. CWEALF members plan to participate in the Program Compliance Review process again this year to identify areas of improvement for non-traditional opportunities.

The support of the *World of Technology* project will continue, by establishing formal links to professional organizations that provide nontraditional role models for students. Staff will work to create stronger alliances with community agencies that serve girls and women to extend CWEALF's outreach efforts to new, under-served populations and to ensure that all women have opportunities to achieve self-sufficiency.

III. Conclusion

The Connecticut State Department of Education continually endeavors to improve the quality of Career and Technical Education. The CTE staff is comprised of seven state education consultants responsible for the enormous task of providing service to 169 school districts and 12 community colleges. The staff has achieved many accomplishments with commitment and conviction for the improvement of career and technical education for Connecticut students.

Data has and will continue to drive policies and procedures within the Bureau to improve student performance in CTE programs. Data are utilized for the CTE core indicators and for selection of CT CTE programs in need of improvement. The state professional development plan has been developed to assist districts in increasing student performance academically within CTE programs. The Bureau is positioned to take a stand for career and technical education as contributing members to the High School Reform effort whose mission and beliefs are closely tied to CTE philosophies that transition students to postsecondary education and the workplace.