



Attaining Competitiveness through Career Readiness

*Career and Technical Education
Agenda for Rigor and Relevance*



**Presented in 2010 by
The Kentucky Association
for Career and Technical
Education (KACTE)
www.kacteonline.org**

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The Kentucky Association for Career and Technical Education (KACTE)
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The Kentucky Association of Career and Technical Education (KACTE) has among its primary goals the support of Career and Technical Education (CTE) in the Commonwealth. **The mission of CTE is to:**

-  Prepare students in the Commonwealth for meaningful high-skill, high-wage or high-demand careers and advanced training or education.
-  Support high school transformation and redesign efforts by:
 -  Modeling evidence-based educational methodologies to engage learners in rigorous, hands-on applied academics and to support the various learning styles.
 -  Reinforcing mathematics, science and reading content of academic courses in the CTE curriculum.
 -  Developing and teaching interdisciplinary and applied secondary mathematics and science in CTE courses that fulfill graduation requirements for mathematics and science.
 -  Developing and implementing career pathways to include a sequence of secondary and postsecondary courses for seamless transitions to postsecondary education and the opportunity for students to earn industry certification and postsecondary credentials.
-  Respond to the needs of Kentucky's business and industry sector by developing secondary and postsecondary curriculums and worker training programs.
-  Assist in the state's economic development efforts by collaborating with representatives of business and industry to determine and develop needed skill standards and implement educational programs designed to impart those skills to future workers.

'Career and Technical Education is a proven component of a comprehensive educational plan'

CTE's Record of Relevance, Success

Career and Technical Education is a proven component of a comprehensive educational plan that can be critical in helping all students achieve success in postsecondary education and their chosen career fields.

-  96.6 percent of all high school students take at least one CTE course (2004 Final Report, National Assessment of Vocational Education). More than 300,000 Kentucky students currently are enrolled in at least one CTE course.

- 🌟 CTE graduates are 10-15 percent more likely to be in the labor force and earn 8-9 percent more than graduates of academic programs (2001 Russell Sage Foundation).
- 🌟 Nearly one-third of the fastest growing occupations will require an associate's degree or a postsecondary vocational certificate (U.S. Bureau of Labor Statistics, 2006).
- 🌟 High-quality CTE will ensure America's future competitiveness through student engagement; innovative integration of math, science and literacy skills; and by meeting the needs of both employers and the economy as a whole (Association for Career and Technical Education Issue Brief, October 2006).
- 🌟 Students at schools with highly integrated rigorous academic and CTE programs have significantly higher student achievement in reading, mathematics and science than do students at schools with less integrated programs (Southern Regional Educational Board).
- 🌟 In Kentucky, during 2007-2008, CTE concentrators (students taking three or more courses in one CTE area of study) increased accountability measures by 1.3 points, compared to 0.4 points for all other students.
- 🌟 The National Dropout Prevention Network identified CTE as one of 15 strategies that have the most positive impact on lowering the dropout rate.
- 🌟 A ratio of one CTE course for every two academic courses has shown to decrease the risk of students dropping out of high school (National Research Center for Career and Technical Education 2005).
- 🌟 81 percent of students who dropped out of high school said that more real-world learning may have influenced them to stay in school (Gates Foundation).

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An Agenda for Rigor and Relevance

TRANSITIONS -- High School-College-Career

The Commonwealth's CTE institutions have taken great strides in developing a seamless system of transition for students moving from secondary to postsecondary education. This seamless transition permits students to earn college credit and to pursue career training without having to repeat equivalent courses they already have taken, saving them time and tuition.

The state's CTE institutions should be encouraged to continue this vital work and be allocated resources needed for further advancement. The continued development of articulation agreements benefits students with efficient, effective education and results in more citizens trained for high-skill, high-wage and high-demand positions. Examples of such cooperative agreements are those being implemented among the Department of Workforce Investment Office of Career and Technical Education, Department of Education Division of Career and Technical Education and the Kentucky Community and Technical College System regarding career pathways. In addition, the availability of dual-credit and related opportunities should be communicated to all students as they are guided in the development of their Individual Learning Plan.

KACTE recommends recognition of educational attainment from accredited institutions to help meet requirements for occupational licensing and regulation, such as those for becoming a licensed electrician.

PROGRAMS

KACTE stresses the importance of assuring state CTE agencies are ready to develop and implement new and innovative educational programs based on evidence-based educational methodologies in response to the emerging needs of business and industry in the state. In addition, ***the agencies must have the resources they need to develop and implement cutting-edge CTE approaches that engage and energize students by connecting coursework and real-world career outcomes.***

'students with specific and realistic career aspirations are better motivated to achieve and more engaged with their studies because they understand the connection between academics and the world of work.

GUIDANCE

Many secondary students and their parents are unaware of the multitude of varied career options available to them through CTE. To address this problem, ***KACTE recommends all area technology centers have their own guidance counselor.*** At the very least, existing high school counseling staff need to be made aware of the opportunities and career pathways available to students through CTE and guide students interested in CTE through their Individual Learning Plan. Individual academic planning based around career clusters or career interest motivates students by connecting coursework and career goals. Students with specific and realistic career aspirations are better motivated to achieve and more engaged with their studies because they understand the connection between academics and the world of work.

To help with CTE career planning, counseling personnel need access to resources—such as labor market data—to guide students through career exploration and planning. ***Each student at all educational institutions should have access to quality career guidance.*** Many secondary counselors are inundated with other administrative duties and need some relief from those duties so they can provide more guidance for students. Guidance counselors receive rigorous training in advising students and need to be able to make that a priority.

ACCOUNTABILITY/TESTING

Academic and technical assessments are essential to measuring and guiding educational progress. Assessing outcomes must account for a diverse student body composed of individuals with varied career goals and aspirations. While all students should prepare for postsecondary education should they decide to pursue it, the very diversity of career aspirations implies there can be a number of successful educational outcomes. ***Educational assessment could be better balanced by giving more emphasis to technical skill attainment, the extent of***

academic integration, provisions for a smooth transition between educational levels, and graduation rates.

INTEGRATION OF ACADEMIC CONTENT

The integration of academics and CTE coursework is a major focus of KACTE. The CTE model of career-relevant, experiential education engages students in their coursework in ways not always possible in traditional academic classroom instruction. At the same time, however, the ever-increasing requirements for high school graduation make it difficult for students to participate in CTE programs in high school. It is especially difficult for students to take enough classes to receive industry standard certification. ***KACTE recommends the development of interdisciplinary applied-academics courses*** (such as Math-in-CTE or construction geometry as examples of applying mathematics, science and technical reading) for which students will be awarded credit toward mathematics, science or English graduation requirements.

PROFESSIONAL DEVELOPMENT

Individual state CTE agencies (such as the Department for Workforce Investment's Office of Career and Technical Education, Kentucky Department of Education's Division of Career and Technical Education, and the Kentucky Community and Technical College System) must be adequately funded for professional development so career and technical educators are prepared to teach to current occupational skill standards and help students make informed career decisions. ***KACTE recommends all high school counselors receive professional development regarding the opportunities for students in CTE and in integrating CTE in students' Individual Learning Plans.***

SPECIAL POPULATIONS

A major goal of CTE is to serve all interested students. To achieve this goal, state CTE organizations must have the resources needed to eliminate barriers preventing the participation of students with special needs. For instance, ***CTE services to students with special needs would be greatly enhanced by more effective communication between CTE teachers and special needs staff by establishing a liaison-type position to act as an instructional bridge between a school/district's staff and CTE.*** KACTE recommends the Department of Education require districts involve a representative from the area technology centers or career and technical centers in each pre-placement Admissions and Release Committee (ARC) meeting. Training should be provided for CTE instructors in working with special populations.

In addition to imparting technical skills, the applied-knowledge approach of the CTE curriculum can offer a means of adding relevance to traditional academic mathematics and science instruction for students with special needs.

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CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Career and Technical Student Organizations (CTSOs) include Future Business Leaders of America (FBLA)-Phi Beta Lambda (PBL); Distributive Education Clubs of America (DECA); Family, Career and Community Leaders of America (FCCLA); FFA (for agricultural education students); Health Occupations Students of America (HOSA); Technology Student Association (TSA); and SkillsUSA (for industrial/technical education students). These organizations are co-curricular, not extracurricular, and are an integral part of CTE instruction. They provide recognition and leadership development opportunities for CTE students, especially for students elected as officers. Participation in the local chapters of these national organizations provides engagement for students and helps keep them in school.

A national concern is secondary education should lead to informed citizenship. Involvement in CTOSs serves not only to reinforce technical knowledge but also to instill an appreciation for democracy, consensus building and civic engagement. KACTE recommends CTOSs be supported in the schools.

'the career preparation model of education engages students through active learning and by demonstrating the connection between learning and career goals'

OPPORTUNITIES

CTE is an important component of the school curriculum for secondary and postsecondary students in preparing them for their chosen career pathway. Through the years, CTE has kept pace with the development of business and industry by upgrading existing curricula, establishing new programs and integrating technology into its teaching methodology. CTE is in prime position to assist the Commonwealth with economic and industrial development efforts. **KACTE recommends exploring opportunities to develop a required middle school or secondary CTE course designed to help students explore career pathways.**

Transforming Education

CTE can assist in high school transformation efforts. The career preparation model of education engages the student through active learning and by demonstrating the connection between learning and career goals. Reform methods such as Small Learning Communities or Schools of Study lend themselves to a career pathway focus. An applied-knowledge model could increase the achievement of all students, including those with learning styles not suited to more abstract academics.

Transforming high school education to integrate rigorous academic instruction with experiential learning models in pursuit of a chosen career pathway creates the obvious answer to the frustrated student's questions:



"Why do I need to learn this?"



"When will I ever use this?"

Coursework and programs designed primarily to impart specific real world career knowledge can be used to reinforce mathematics, science, and reading content of academic classes.

KACTE urges the General Assembly to support:

- ☑ New career and technical centers and area technology centers where deemed needed and necessary to serve emerging populations and employment opportunities with equitable access for all students.
- ☑ New CTE programs to address the needs of business and industry where deemed needed and necessary to serve emerging populations and employment opportunities.
- ☑ Adoption of recommendations in LRC Report #315, *A Study of Secondary Career and Technical Education*, to provide adequate funding for CTE programs to enhance delivery of evidence-based, rigorous instructional opportunity for all students.
- ☑ Equipment replacement, upgrade, and maintenance for secondary and postsecondary facilities.
- ☑ Access for all students with emphasis for ways/funds to provide appropriate materials and equipment for individuals with physical limitations (e.g., wheelchair bound).
- ☑ Integration of academics into career and technical education and the development and utilization of interdisciplinary applied academic courses.
- ☑ Increased opportunities during summer months for the professional development of CTE teachers.

'all working partners . . . are striving to improve CTE at all levels: middle school, high school, area technology center, community and technical college, and university'

Leadership, Achievement

Kentucky's Career and Technical Education (CTE) system is led by the;

- 🌐 *Department for Workforce Investment, Office of Career and Technical Education,*
- 🌐 *Department of Education, Division of Career and Technical Education, and*
- 🌐 *The Kentucky Community and Technical College System (KCTCS).*

All working partners — local school districts to state agencies, education associations to business and industry — are striving to improve CTE at all levels (middle school, high school, area technology center, community and technical college, and university). Some highlights of recent achievement:

- ☑ Kentucky pioneered occupational skill standard certificate programs, which were created in partnership with business and industry to meet current workplace needs. The percent of **students earning skill standard certificates has nearly tripled** over the last eight years.
- ☑ Kentucky TECH, the state's system of secondary Area Technology Centers, became the **first such system in the nation to receive district accreditation** by AdvanceEd/ Southern Association of Colleges and Schools (SACS).

- ✓ KCTCS demonstrates its role as the state's **top provider of postsecondary education and workplace training with 100,348 enrollees** (Fall 2009). KCTCS comprises approximately 50 percent of the public undergraduate enrollment in Kentucky and is the primary provider of education and training for jobs that require postsecondary education beyond high school but less than a baccalaureate degree.

CTE strives to fulfill the challenge of **“Every Scholar Needs a Skill.”**

The Kentucky Association for Career and Technical Education (KACTE) is a non-profit educational association representing professionals at all levels and in all disciplines of Kentucky's Career and Technical Education (CTE) programs. KACTE's mission is to provide educational leadership in developing a competitive workforce. Its purposes are:

1. Leadership and Program Improvement. To foster excellence in Career and Technical Education in Kentucky.
2. Policy Development. To advocate Kentucky and national policy to benefit Career and Technical Education.
3. Knowledge Connectivity. To act as a clearinghouse for education and information relating to all aspects of Career and Technical Education, while providing an access for professional development.
4. Awareness. Promote public awareness of the value of Career and Technical Education as an integral part of the total program of education and solicit public support for these programs.



KACTE's on-going programs include:

- Facilitating the annual Career and Technical Education Summer Program, held each summer in Louisville, with attendance of more than 1,500 CTE professionals at approximately 200 separate educational sessions for teachers of agriculture, business, communications, construction, engineering and technology, family and consumer sciences, health occupations, information technology, marketing, manufacturing, pathways to careers, and transportation;
- Supporting Kentucky's Career and Technical Education Student Organizations (CTSOs), particularly facilitating the annual CTE Student Leadership Day in Frankfort, which offers a citizenship program to approximately 1,000 students;
- Advocating for legislative and programatic improvements for CTE with the goal of providing students a high-quality, chosen pathway to college and a career; and
- Maintaining communication among the KACTE membership through the website, www.kacteonline.org.