

KENTUCKY SCHOOL UPDATES

CAREER AND TECHNICAL EDUCATION: PREPARING STUDENTS FOR POSTSECONDARY EDUCATION AND THE WORKFORCE

THE BASICS OF THE LAW

- By law, Kentucky measures school success on several factors including the proportion of students who make a **successful transition** from school to work, postsecondary education, or the military.
- The **purpose** of career and technical education is to develop problem-solving skills, teach basic and advanced academic skills in a technological setting, and provide experience in all aspects of an industry students are preparing to enter.
- Students may participate in **authentic work-based learning experiences** while enrolled in high school such as internships, cooperative education, pre-apprenticeship, mentoring, shadowing, and community service.
- An **Individual Learning Plan (ILP)** is required of all students beginning in middle school indicating a career goal and a planned course of study necessary for a successful transition to postsecondary education or a career. Students may change career goals at any time. Beginning with the 2006-2007 school year, students will have a new web-enabled ILP to help them better focus on postsecondary studies and careers.
- **Career and Technical Education (CTE) Profiles** provide an annual statewide report on the academic achievement of career and technical education students. The CATS/KCCT results are sorted by career clusters and posted to the KDE website (search for “Perkins Accountability Reports”).
- The **Kentucky Department of Education Technical Assistance Management Design** is utilized to assist districts that do not meet performance goals or whose career/technical education students’ academic performance is lower than the district’s academic performance.

RESULTS

- Listed below are the statewide **transition results** comparing 2003 and 2005 CTE graduates. These figures do not take into account the number of students who drop out of school.

	<u>2003</u>	<u>2005</u>
Attended college	50.4%	58.1%
Employed	24.4%	30.4%
Entered military	2.2%	2.2%
Combined school and work	2.1%	3.5%

	<u>2003</u>	<u>2005</u>
Self-employed	1.0%	0.3%
Not employed or attending school	20%	5.5%

- Statewide Articulation Agreements in Agricultural Education, Business Education, and Family and Consumer Sciences have been developed with Kentucky universities (Eastern, Morehead, Murray, Western, Northern Kentucky, University of Kentucky, Louisville Technical Institute, and KCTCS) for any graduate meeting the specified criteria. These agreements encourage more students to enroll in postsecondary education, make an effort to pass skill standards assessments, achieve academically in career and technical education (CTE) courses, select and complete a career major, and earn college credit while in high school.
- Enrollment in Career and Technical Education (CTE) programs in grades 7-12 for 2003 was 207,721 students. Enrollment for 2004-2005 increased to 211,993 students.
- The overall statewide academic index (CATS) of CTE concentrators (students completing three or more CTE courses in a sequence of courses) increased 10.7 points over a five-year span (2001-2005) compared to an 8.5 increase for all other high school students.
- The following initiatives are being implemented across the state. They focus on keeping students in school, improving student academic and technical skill achievement, improving student preparation for the workforce, and increasing successful transition rates.
 - ✓ **Tech Prep** is a program of study that combines at least two years of high school with a minimum of two years of postsecondary education in a planned sequence of courses. It integrates academic and career/technical instruction; utilizes work-based and worksite learning related to students' career goals where appropriate and available; provides technical preparation in a career field such as engineering technology, applied science, mechanical, industrial, or practical art or trade, agriculture, health occupations, and business; builds student competence in mathematics, science, reading, writing, communications, economics, and workplace skills; leads to an associate or a baccalaureate degree or a postsecondary certificate in a specific career field; and leads to placement in appropriate employment or to further education.

- ✓ **Jobs for Kentucky Graduates Program** has been implemented in high schools to address learning goals for students, drop-out prevention, and school-to-work transition designed to meet the needs of at-risk students. Each program has enrolled 30 to 40 students—juniors and seniors at risk of dropping out or not becoming successfully employed. A teacher (specialist) concentrates on providing students with extra help in job readiness skills and academic support. Students also receive intensive case management and support services. Upon graduation from high school, these students receive job search assistance.

- ✓ **High Schools That Work** is designed to combine challenging academic courses and modern career/technical studies to raise the academic achievement of students. The focus is on school-wide revitalization that improves the academic and technical standards of the high school curriculum. Low-level academic and technical courses are eliminated; higher performance standards are set for students. Support services are included through such activities as a guidance and advisement program (a plan that assigns students to the same advisor throughout their high school years) and extra help is provided to help students achieve the higher standards. Kentucky currently has 59 *High Schools That Work* sites. The following practices are key to its success:
 - ❖ higher student expectations
 - ❖ increased access to challenging vocational/technical studies
 - ❖ rigorous and relevant academic studies
 - ❖ students completing a focused program of studies based on a career major
 - ❖ opportunities for students to participate in work-based learning
 - ❖ teachers working together to plan and deliver integrated instruction
 - ❖ students actively engaged in the learning process
 - ❖ guidance and advising systems available for all students
 - ❖ extra help for students to complete an accelerated learning program
 - ❖ use of student assessments/evaluations for continuous improvement

Meeting Basic Proficiency Performance Goals on 2004 <i>High Schools That Work (HSTW)</i> Assessment		
Subject	All <i>HSTW</i> Sites 2004	KY <i>HSTW</i> Sites 2004
Reading	54%	57%
Mathematics	59%	61%
Science	48%	52%

- ✓ **Award of Educational Achievement** is an award recognizing high school seniors for completing specified course-taking criteria and meeting or exceeding the *High Schools That Work* performance goals in reading, science, and mathematics on the *HSTW* Assessment. In 2004, there were 1,089 Kentucky students who received this award.

- ✓ **Career and Technical Student Organizations** provide opportunities for students to develop leadership skills, teamwork, communications, and community service. The

following organizations are available to high school students enrolled in career and technical education: FFA (agriculture), FBLA (business), FCCLA (family and consumer sciences), DECA (marketing), TSA (technology), SkillsUSA (industrial education), and HOSA (health science).

- ✓ **Unite to Read** is a statewide project designed by Kentucky’s Career and Technical Student Organizations (CTSO) in partnership with Kentucky Educational Television and PBS KIDS, Student Technology Leadership Program (STLP), and Future Educators Association (FEA). The overall goal is to have all of these groups within a school or district working together in promoting literacy and lifelong reading.
- ✓ **Secondary Career and Technical Education Programs** are available in 171 school districts offering services in grades 7 through 12. Programs and curricula have been restructured based on new and emerging occupations to prepare students for all aspects of an industry. Career/technical areas are providing instructional programs designed around fourteen career clusters:
 - ➔ Agriculture
 - ➔ Arts & Humanities
 - ➔ Business & Marketing
 - ➔ Communications
 - ➔ Construction
 - ➔ Education
 - ➔ Health Science
 - ➔ Human Services
 - ➔ Information Technology
 - ➔ Manufacturing
 - ➔ Public Services
 - ➔ Science & Mathematics (Pre-Engineering)
 - ➔ Social Sciences
 - ➔ Transportation

Students can find more information about each career cluster on the Department of Education Web site. (www.education.ky.gov , search for “Career and Technical Education”)

- ✓ **Interdisciplinary Courses** combine curriculum content from specific career technical areas with specific core academic areas that have the same academic rigor as traditional core content courses, but the content is delivered through a contextual, hands-on approach. The following interdisciplinary courses have been collaboratively developed by staff in the Divisions of Career and Technical Education and Curriculum utilizing teachers from both disciplines:
 - ❖ Agribiology for Life Science component within the science requirement
 - ❖ Agriscience for Life Science component within the science requirement
 - ❖ Business Economics for Economics within the social studies requirement
 - ❖ Computer-Aided Drafting for geometry requirement
 - ❖ Construction Technology/Geometry for geometry requirement
 - ❖ Consumer Economics for Economics within the social studies requirement
 - ❖ Health and Wellness for the ½ credit requirement in health
 - ❖ Math for Business and Industry for the math elective requirement
 - ❖ Medical Science for Life Science component within the science requirement
 - ❖ Medical Math for math elective

- ❖ Life Skills Health for ½ credit requirement in health
- ❖ Nutritional and Food Science for Life Science component within the science requirement

The curriculum outlines are available to all school districts and are posted on the KDE website. (www.education.ky.gov, search for “Interdisciplinary Courses”)

- **The Kentucky Occupational Skill Standards and Assessment System (KOSSA)** was developed by the Division of Career and Technical Education with the help of business and industry. In 2006, nearly 13,000 career and technical education students participated in eighteen assessment areas (horticulture, administrative support services, retail services, hospitality services, child development, family services, consumer services, manufacturing, production livestock, production crop, financial services, marketing, allied health, technology education/pre-engineering, communications, construction, and transportation). The assessments measure academic, employability, and occupational skills of students, which have been endorsed by business and industry. Participating students take at least three courses in an area related to the assessments. In 2006, forty-five percent of the students tested reached the cut-off score established by industry and education representatives and received Kentucky Occupational Skill Standards Certificates. For more information, contact the Division of Career and Technical Education at (502) 564-3472.

KOSSA State Growth and Results

Year	2000	2001	2002	2003	2004	2005	2006
Assessment Areas	7	10	18	19	19	19	18
Students Assessed	5,645	6,865	12,365	12,463	13,056	12,639	12,912
Percent Passing	14	16	23	34	40	44	45

WHAT YOU CAN DO TO HELP

- ★ **Get involved** with your child’s Individual Learning Plan to help them think about and plan for their future career. Attend career days/fairs with them or be a guest speaker. **Serve** as a judge for student organizations’ career and technical competitive events.
- ★ **Obtain and review** the Second Edition of *Ready for Work: Essential Skills for Kentucky Jobs*, a toolkit designed to help communities and schools address student performance and job preparation. Researched and produced by the Partnership for Successful Schools, this four-volume report looks at preparation of Kentucky students for life after high school from the perspective of employers, parents, educators, and students. See below for contact information.

- ★ **Request** information about Kentucky Scholars, a program of the Partnership for Successful Schools that is a model for improving high school academic achievement. See below for contact information.
- ★ **Encourage** school-based decision making councils to support career and technical programs in high schools with funds necessary for hands-on activities.
- ★ **Ask** teachers, students, and business leaders how these programs are working.
- ★ **Write** to your elected state and local officials with specific examples of successes and problems you have noted.
- ★ **Ask** local school board members in what ways do they support career and technical education.
- ★ **Recognize** student achievement in career and technical education programs and the contributions of teachers and administrators.

FOR MORE INFORMATION, CONTACT

- **Kentucky Department of Education, Division of Career and Technical Education** at (502) 564-3472 or visit the Web site at <http://www.education.ky.gov/KDE/Default.htm> (search for Career & Technical Education for excellent information for students; interdisciplinary courses; skill standards and assessments; individual learning plans).
- **Kentucky Scholars Program**, (859) 278-6512, pmarquette@kentuckyscholars.org or visit the Web site at <http://www.kyscholars.com>.
- **Prichard Committee for Academic Excellence**, P.O. Box 1658, Lexington, KY 40588-1658; (859) 233-9849 or (800) 928-2111; e-mail: admin@prichardcommittee.org or visit the Web site at <http://www.prichardcommittee.org/>.

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