A GUIDE TO **UNDERSTANDING**

CAREER AND TECHNICAL EDUCATION

Association for Career and Technical Education
ACTE

The Association for Career and Technical Education
1410 King Street • Alexandria, VA 22314
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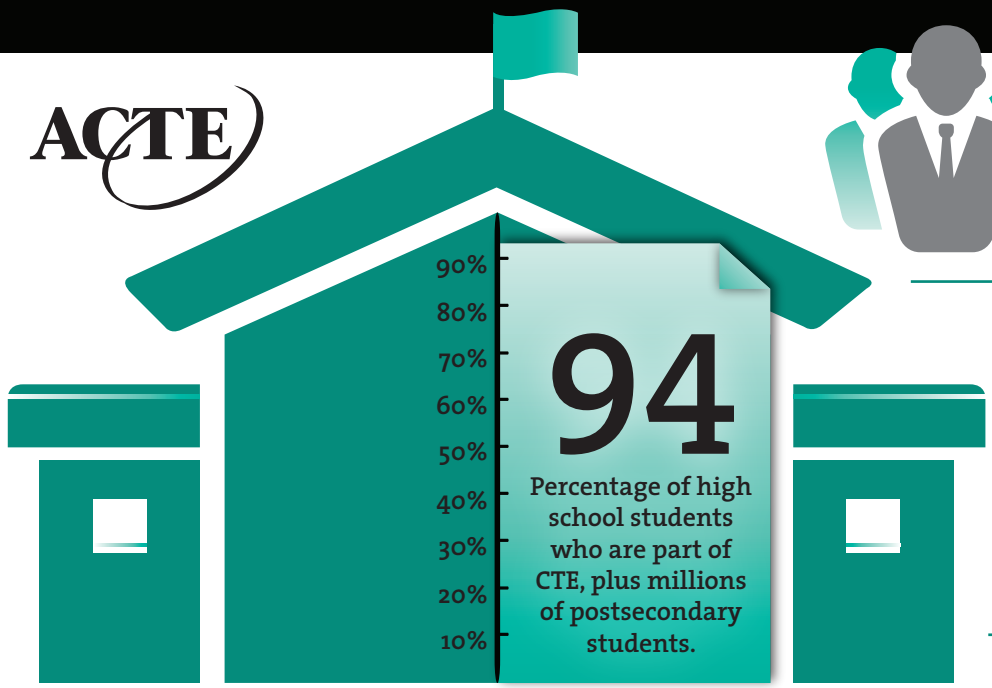
www.acteonline.org

Connecting Education and Careers

What is Career and Technical Education?

ACTE



Fulfills employer needs that are **High**: skill, wage, demand

Includes high schools, career centers, community and technical colleges, four-year universities and more.

Integrates with academics in a rigorous and relevant curriculum.

Features high school and postsecondary partnerships, enabling clear pathways to certifications and degrees.

Prepares students to be college- and career-ready by providing core academic skills, employability skills and technical, job-specific skills.

Educates students for a range of career options through 16 Career Clusters® and 79+ pathways.

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CTSO, MEA, ACTE, ABCDEFG—What Do They All Mean?

With so many organizations, entities and groups, it is a daunting task learning who is who and what is what in the world of career and technical education (CTE). While initially geared toward the business community, this reference is also useful for new CTE instructors, news media professionals, policymakers and others who are tasked with understanding the CTE world. As a living document, the intent is to continually update this reference to keep it relevant.

What Is CTE?

There are literally hundreds of definitions of CTE. The Association for Career and Technical Education (ACTE) has taken all these definitions and condensed them into quick facts that will help define CTE.

- CTE prepares both youths and adults for a wide range of careers and further educational opportunities. These careers may require varying levels of education—including industry-recognized certifications, postsecondary certificates, and two- and four-year degrees.
- Almost 12 million students participated in secondary and postsecondary CTE programs during the 2011-12 school year, as reported by the Office of Career, Technical, and Adult Education.
- According to the National Center for Education Statistics, almost all high school students earn credit in CTE, and more than half earn 3+ credits.
- The average high school graduation rate for students concentrating in CTE programs is substantially higher than the average national freshman graduation rate.A person with a CTE-related associate degree or credential will earn on average between $4,000 and $19,000 more a year than a person with a humanities associate degree.CTE is at the forefront of preparing students to be college- and career-ready. CTE equips students with:

    - *Core academic skills* and the ability to apply those skills to concrete situations in order to function in the workplace and in routine daily activities.
    - *Employability skills* (such as critical thinking and responsibility) that are essential in any career area.
    - *Job-specific technical skills* related to a specific career pathway.

STEM Is CTE

In the past several years, students have lacked interest in science, technology, engineering and mathematics (STEM), yet the job opportunities are in high demand.

The issue brief *CTE's Role in STEM* addresses such concerns as the dearth of professionals, lack of basic science and math skills, and demographics. CTE provides students with opportunities by offering programs that strengthen the STEM understanding and introduce career pathways. Through programs of study at the secondary level, students can explore their options and then decide on a career pathway that best suits their STEM interest. CTE students can then take the knowledge and skills they have learned to postsecondary education and into a high-skill, high-paying job opportunity.

The CTE classroom is the best STEM laboratory available because it provides real-world, hands-on learning, as well as enhances student engagement and learning.

Statistics

- 50 percent of all STEM jobs are open to workers with less than a bachelor's degree.
- 30 percent of today's STEM-intensive jobs are in blue-collar fields.

CTE Is Science—61 percent of CTE students interested in a science career report that their CTE courses equip them with skills for the workforce.

CTE Is Technology—50 percent of STEM jobs are in manufacturing, health care and construction, while another 12 percent of STEM jobs are in installation, maintenance and repair.

CTE Is Engineering—18 percent job growth is projected for environmental engineering technicians by 2022. These jobs typically require an associate degree and pay more than $45,000 per year.

CTE Is Mathematics—45 percent of CTE students interested in a math career report that their CTE courses help them attain higher math and/or science skills.

CTE Structure

How CTE is delivered varies by state and even by district. Within CTE, occupations and career specialties are often grouped into Career Clusters®. There are 16 at the national level. Not all states use all the clusters and some have additional ones. The current national Career Clusters are:

- Agriculture, Food & Natural Resources
- Architecture & Construction
- Arts, Audio/Video Technology & Communications
- Business Management & Administration
- Education & Training
- Finance
- Government & Public Administration
- Health Science
- Hospitality & Tourism
- Human Services
- Information Technology
- Law, Public Safety, Corrections & Security
- Manufacturing
- Marketing
- Science, Technology, Engineering & Mathematics
- Transportation, Distribution & Logistics

Further specialization is achieved through comprehensive programs of study, which align academic and technical content in a coordinated, non-duplicative sequence of secondary and postsecondary courses, and lead to an industry-recognized credential or certificate at the post-secondary level or an associate or baccalaureate degree. At the local level, CTE is delivered at the middle school, high school, adult and postsecondary levels. It may be located in a:

- *Comprehensive high school*—school that has both academic and CTE courses; some comprehensive high schools are designed as CTE magnet schools.
- *CTE center/technical school*—a separate school or center within a district or among districts where students are bussed for their CTE courses.
- *Community/technical college*—for postsecondary instruction.
- *Four-year college/university*—for postsecondary instruction and teacher preparation.
- *Adult education/employment center*—for training for the adult population to assist in entering the workplace or upgrading skills.
- *Correctional facility*—to provide skills/knowledge to inmates.

As an additional resource on how CTE is specifically structured in each state, ACTE has created, and continues to maintain, individual state profiles. These profiles are designed to provide clarity and context to the complex and diverse CTE systems that exist today. For more information, visit **www.acteonline.org/stateprofiles**.

CTE Funding

CTE programs are funded primarily by state and local resources, as is the case with most education programs. At the federal level, the Perkins Act also provides funding to states, local school districts and postsecondary institutions for program improvement and innovation.

Carl D. Perkins Career and Technical Education Act

The Perkins Act was most recently reauthorized in August 2006. The purpose of Perkins is to provide individuals with the academic and technical skills needed to succeed in a knowledge- and skills-based economy. Perkins supports CTE that prepares its students both for postsecondary education and the careers of their choice. Federal resources help ensure that CTE programs are academically rigorous and up-to-date with the needs of business and industry. The federal contribution to CTE, just over $1 billion annually, supports innovation and expands access to quality programs. Federal funds provide the principal source for innovation and program improvement, and they help to drive state support through a "maintenance-of-effort" provision in the federal law.

Perkins Basic State Grant funds are provided to states that, in turn, allocate funds by formula to secondary school districts and postsecondary institutions. States have control over the split of funds between secondary and postsecondary levels. After this decision is made, states must distribute at least 85 percent of the Basic State Grant funds to local programs using either the needs-based formula included in the law or an alternate formula that targets resources to disadvantaged schools and students.

States may reserve up to 10 percent for leadership activities and five percent (or $250,000, whichever is greater) for administrative activities.

State and Local Funding

State and local funding support the CTE infrastructure and pay teachers' salaries and other operating expenses.

Workforce Innovation and Opportunity Act (WIOA)
Congress passed the Workforce Investment Act (WIA) Workforce Innovation and Opportunity Act in 2014.It replaced the Workforce Investment Act (WIA) in an effort to better align and strengthen the country's job-training system. The enactment of WIOA, which went into effect on July 1, 2015, provides new opportunities for the workforce system and career and technical education to work together. Whether a state creates a "Combined Plan" that includes WIOA and the State Plan for Perkins, or a state writes a "Unified Plan," the state should consider how these programs can best work together to prepare individuals for careers that meet employer skill needs.

WIOA requires states and local areas to develop career pathways – a combination of education, training, career counseling, and support services that align with the skill needs of industries, through partnerships with secondary and postsecondary CTE. By working together, local boards and CTE can provide complementary services; for example, WIOA can help provide wrap-around support services for low-income postsecondary CTE students. Local workforce boards must engage employers to ensure that workforce investment activities meet the needs of businesses and to facilitate effective employer utilization of the local workforce development system. WIOA emphasizes the creation and use of industry-led sector partnerships to serve these and other purposes. CTE also engages employers in order to ensure that CTE programs prepare students with skills demanded by employers. Workforce boards and CTE leaders can work together, including through the use of sector partnerships, to prevent duplication and efficiently engage employers in a systemic fashion..

Key Terms

21st Century Skills/Employability Skills/Soft Skills—Skills, other than technical knowledge, needed to succeed in the workplace. Some examples include critical thinking, teamwork, problem solving and goal setting.

Academic Integration—The blending of academic and CTE curriculum. An example would be the Math-in-CTE program from the National Research Center for Career and Technical Education.

Apprenticeship—A system of training whereby workers learn their skilled trade on the job in a structured and supervised environment. The U.S. Department of Labor administers the Registered Apprenticeship Program, which aims to connect job seekers with employers. Regional offices support this activity.

Articulation Agreement—A formal link between at least two educational entities (i.e., high school and community college) designed to make a smooth student transition between entities.

Career Clusters®—A framework for organizing curriculum around broad career categories, or Career Clusters, and more specific career pathways. There are 16 identified national Career Clusters.

Career Academies—Small learning communities that are focused on a career theme and integrate rigorous academics.

Career Pathway—As described in a joint letter from the U.S. Departments of Education, Labor, and Health and Human Services, career pathways are "connected education and training strategies and support services that enable individuals to secure industry relevant certification and obtain employment within an occupational area and to advance to higher levels of future education and employment in that area."

Certification—Certifications indicate mastery of or competency in specific knowledge, skills or processes that can be measured against a set of accepted standards. They are not tied to a specific educational program, but are typically awarded through assessment and validation of skills in cooperation with a business, trade association or other industry group.

CTE Concentrator—As defined by OCTAE, a secondary CTE concentrator is a secondary student who has earned three or more credits in a single CTE program area, or two credits in a single CTE program area for those program areas where two credit sequences at the secondary level are recognized by the state and/or its local eligible recipients.

A postsecondary CTE concentrator is a postsecondary/adult student who completes at least 12 credits within a single program area sequence, or fewer than 12 credits for those programs that terminate in an industry-recognized credential, a certificate or a degree in less than 12 credits.

Dual Credit—A program or class where participants earn credit in more than one area. For example, a culinary class that counts as a math class or a high school class that is eligible for college credit.

Externship—A program where teachers/instructors spend time in the business environment. This helps teachers/instructors understand the workforce needs of the business community and what changes need to occur in the classroom to reflect these needs.

Industry Advisory Council (IAC)—It is required by the Perkins Act that CTE programs have IACs that meet at least once a year. Ideally, IACs help ensure that the CTE curriculum is up-to-date and that what is being taught in the classroom adequately prepares students for the workplace.

Industry-recognized Credentials—An industry-recognized credential is sought or accepted by employers within the industry or sector involved as a recognized, preferred or required credential for recruitment, screening, hiring, retention or advancement purposes. Where appropriate, the credential is endorsed by a nationally recognized trade association or organization representing a significant part of the industry or sector.

Internship—An opportunity that allows students to receive hands-on knowledge and training while working for a business.

Programs of Study (POS)—Federally defined in the Perkins Act of 2006 as programs that:

- Incorporate secondary education and postsecondary education elements.
- Include coherent and rigorous content aligned with challenging academic standards and relevant career and technical content in a coordinated, non-duplicative progression of courses that align secondary education with postsecondary education to adequately prepare students to succeed in postsecondary education.
- May include the opportunity for secondary education students to participate in dual or concurrent enrollment programs or other ways to acquire postsecondary education credits.
- Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree.

State Director—The person(s) at the state level who is responsible for secondary, postsecondary and adult CTE.

Work-based Learning—Programs and opportunities that allow students to see and understand how classroom instruction connects to the world of work.

Workforce Investment Board (WIB)—WIBs are regional entities that were created to implement WIA. The WIB's main role is to direct federal, state and local funding to workforce development programs. WIBs oversee the One-Stop career centers, where job seekers can get employment information; find out about career development training opportunities; and connect to various programs in their area. Services vary by state and WIB.

Affiliated Organizations

Throughout this document, you will learn about many associations dedicated to the students and educators involved in CTE. There are, however, a number of other organizations, companies and entities that are within the CTE community but don't fall into those categories.

Government Agencies

Bureau of Labor Statistics[1]**—**The government entity under the U.S. Department of Labor that is responsible for measuring labor market activity.

Employment and Training Administration (ETA)[2]**—**The agency within the U.S. Department of Labor that administers federal government job training and worker dislocation programs, federal grants to states for public employment service programs and unemployment insurance benefits. These services are primarily provided through state and local workforce development systems.

Office of Career, Technical, and Adult Education (OCTAE)[3]**—**OCTAE administers and coordinates programs that are related to adult education and literacy, CTE and community colleges. OCTAE's CTE initiatives are designed to administer state formula and discretionary grant programs under the Perkins Act; provide assistance to states to improve program quality, implementation and accountability; and establish national initiatives that help states implement rigorous CTE programs.

National Center for Innovation in Career and Technical Education (NCICTE)[4]**—**NCICTE performs scientifically based research and evaluation to expand the understanding, increase the effectiveness and improve the delivery of CTE. It is funded by OCTAE.

Industry Groups

National Automotive Technicians Education Foundation (NATEF)[5]**—**NATEF was founded to evaluate technician

training programs against standards developed by the automotive industry, as well as recommend qualifying programs for NATEF accreditation.

National Center for Construction Education and Research (NCCER)[6]**—**NCCER was "created to develop industry-driven standardized craft-training programs with portable credentials and help address the critical workforce shortage facing the construction industry."

National Council for Agricultural Education[7]**—**The council provides leadership and coordination to shape the future of school-based agricultural education. Its board of directors is made up of representatives from organizations and associations focused on agriculture education and CTE.

Curriculum/Testing Providers

ACT[8]**—**ACT is an independent, not-for-profit organization that provides a broad array of assessment, research, information and program management solutions in the areas of education and workforce development.

MBA Research & Curriculum Center (MBA*Research*)[9]**—**MBA*Research* is organized as a consortium of 37 state education departments and other organizations to support educators in the preparation of students for careers in business and marketing. It develops programs, strategies and curricula.

NOCTI[10]**—**NOCTI is a provider of occupational competency assessment products and services to secondary and postsecondary educational institutions in the United States and around the world. A non-profit corporation, NOCTI is governed by a consortium of states consisting of representatives from each state and U.S. territory.

Project Lead The Way (PLTW)[11]**—**PLTW provides rigorous and innovative STEM education curricular programs used in middle and high schools. More specifically, PLTW has programs and curriculum in engineering and biomedical sciences.

Southern Regional Education Board (SREB)[12]**—**SREB is a non-profit, non-partisan organization that works with 16 member states to improve public preK–12 and higher education. Founded by the region's governors and legislators in 1948, SREB was America's first interstate compact for education.

In 1987, SREB established High Schools That Work (HSTW). HSTW uses research-proven strategies to help states transform their public high schools into places where all students learn at high levels. Member schools implement 10 key practices for changing what is expected of students, what they are taught and how they are taught.

Other

National Technical Honor Society (NTHS)[13]**—**NTHS is a chapter-based organization focused on honoring student achievement and leadership, promoting educational excellence, awarding scholarships and enhancing career opportunities for its membership.

Career and Technical Student Organizations (CTSO)

More than 2 million students belong to and participate in CTSOs, according to a 2015 Achieve-NASDCTEc publication, which are designed to provide leadership development, motivation and recognition for students. The U.S. Department of Education recognizes the following CTSOs and similar organizations:

Business Professionals of America (BPA)[14]**—**BPA has a history as a student organization that contributes to the preparation of a world-class workforce through the advancement of leadership and citizenship, as well as academic and technological skills for students at the secondary and postsecondary levels. Through co-curricular programs and services, members of BPA compete in demonstrations of their business technology skills, develop their professional and leadership skills, network with one another and professionals across the nation, and get involved in the betterment of their community through good-works projects.

DECA[15]**—**DECA, a national association of marketing, finance, hospitality and management education students, provides teachers and members with educational and leadership development activities to merge with the education classroom instructional program.

Family, Career and Community Leaders of America (FCCLA)[16]**—**FCCLA makes a difference in families, careers and communities by addressing important personal, work and societal issues through family and consumer sciences education. Involvement in FCCLA offers members the opportunity to expand their leadership potential and

develop skills for life—planning, goal setting, problem solving, decision making and interpersonal communication—that are necessary in the home and workplace.

Future Business Leaders of America—Phi Beta Lambda (FBLA-BPL)[17]**—**FBLA-PBL is a dynamic organization of young people preparing for success as leaders in the country's businesses, government and communities.

Future Educators Association (FEA)/Educators Rising[18]**—** FEA is an organization that provides students interested in education-related careers with activities and materials that help them explore the teaching profession. FEA helps students develop the skills and strong leadership traits that are found in high-quality educators, it and significantly contributes to the development of the next generation of great educators.

HOSA-Future Health Professionals[19]**—**HOSA's two-fold mission is to promote career opportunities in the health-care industry and to enhance the delivery of quality health care to all people.

National FFA Organization[20]**—**FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.

National Postsecondary Agricultural Student Organization (PAS)[21]**—**PAS is an organization associated with agriculture/agribusiness and natural resources in approved postsecondary institutions offering baccalaureate degrees, associate degrees, diplomas and/or certificates.

National Young Farmer Educational Association (NYFEA)[22]**—**NYFEA is the official adult student organization for agricultural education with the goal of being America's association for educating agricultural leaders. The association features leadership training, agricultural career education and community service opportunities.

SkillsUSA[23]**—**SkillsUSA is a national organization serving high school and college students and professional members who are enrolled in technical, skilled and service occupations, including health occupations.

Technology Student Association (TSA)[24]**—**TSA is the only student organization devoted exclusively to the needs of students interested in STEM who are presently enrolled in, or have completed, technology education courses.

National Coordinating Council for Career and Technical Student Organizations (NCC-CTSO)[25]**—**NCC-CTSO is a council comprised of representatives from each CTSO, ACTE, the U.S. Department of Education and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc).

Professional Associations for CTE Instructors

There are numerous opportunities for career and technical educators to participate in a professional association. In addition to union organizations like the National Education Association and the American Federation of Teachers, there are additional professional associations for every trade or area taught within CTE. Here is a list, although not comprehensive, of many of those associations.

American Association for Agricultural Education (AAAE)[26]**—**AAAE is dedicated to studying, applying and promoting the teaching and learning processes in agriculture. It is an individual membership organization.

American Association of Family and Consumer Sciences (AAFCS)[27]**—**AAFCS is a professional individual membership association for individuals with a baccalaureate degree or higher, professional-level certification or professional-level licensure in family and consumer sciences.

Association for Career and Technical Education (ACTE)[28]**—**ACTE is an individual membership organization dedicated to the advancement of education that prepares youth and adults for successful careers. ACTE is committed to enhancing the job performance and satisfaction of its members; to increasing public awareness and appreciation for CTE programs; and to ensuring growth in local, state and federal funding for these programs by communicating and working with legislators and government leaders. ACTE is supported by a network of state-affiliated associations.

Association for Career and Technical Education Research (ACTER)[29]**—**ACTER is the premier professional organization for researchers, faculty, graduate students, administrators, policymakers and all others with global interests in workforce education research, education, issues and policy. It is an individual membership organization.

Association for Skilled and Technical Sciences (ASTS)[30]**—** ASTS is an individual membership organization for all instructors, administrators, teacher educators, industry representatives and others interested in the skilled trades. It was created when the National Association for Trade and Industry Educators (NATIE) and the National Association of State Supervisors for Trade and Industrial Education (NASSTIE) merged in 2006.

Career and Technical Education Equity Council (CTEEC)[31]**—** The purposes of CTEEC are to promote and support CTE, to support equitable and full participation of all students and employees in technical education, to encourage professional growth and development of its members, and to support the goals/objectives of the Administration Division of ACTE. It is an individual membership organization that requires ACTE membership.

Epsilon Pi Tau[32]**—**As an academic and professional honors group for technology programs in higher education, workforce development programs and professionals in practice, Epsilon Pi Tau provides honor and distinction to members, institutions, programs and individuals throughout the world.

International Vocational Education and Training Association (IVETA)[33]**—**IVETA is an organization and network of vocational educators, vocational skills training organizations, business and industrial firms, and other individuals and groups interested or involved in vocational education and training worldwide. IVETA is dedicated to the advancement and improvement of high-quality vocational education and training wherever it exists and is needed. It is an individual membership organization.

Marketing Education Association (MEA)[34]**—**MEA exists to foster the growth and development of marketing education, encourage and support the professional development of marketing educators, encourage understanding of and support for marketing education, and maintain an efficient and effective association. It is an individual membership association.

National Association of Agricultural Educators (NAAE)[35]**—** NAAE is a federation of state agricultural educators associations. Currently, NAAE is focusing on three areas: advocacy for agricultural education, professional development for agricultural educators, and recruitment and retention of current agriculture educators.

National Association of Secondary School Principals (NASSP)[36]**—**NASSP is an individual membership organization of principals and aspiring school leaders at the middle and secondary school levels.

National Association of State Administrators of Family and Consumer Sciences (NASAFACS)[37]**—**The vision of NASAFACS is to empower individuals and families to manage the challenges of living and working in a diverse global society. Its unique focus is on family, work and their interrelationship. It is an individual membership organization that is an affiliate of ACTE.

National Association of State Directors of Career Technical Education Consortium (NASDCTEc)[38]**—** NASDCTEc represents the state and territory heads of secondary, postsecondary and adult CTE across the nation. NASDCTEc, through leadership, advocacy and partnerships, aims to support an innovative CTE system that prepares individuals to succeed in education and their careers, and poises the United States to flourish in a global, dynamic economy. In cooperation with the National Career Technical Foundation (NCTEF), NASDCTEc provides leadership and support for the National Career Clusters® Framework.

National Association of Supervisors of Agricultural Education (NASAE)[39]**—**NASAE is a professional organization established to provide members with information essential for planning and conducting quality agricultural education programs. It is an individual membership organization.

National Association of Supervisors of Business Education (NASBE)[40]**—**NASBE is an organization of business education supervisors who are direct employees of a state, region or local education agency, and has as its purpose furthering the cause of business education and the welfare of the field and professional members. It is an individual membership organization.

National Association of Teachers Educators for Family and Consumer Sciences (NATEFACS)[41]**—**NATEFACS is a national organization of teacher educators whose purpose is to improve and strengthen teacher education in family and consumer sciences. It is an individual membership organization.

National Association Teachers of Family and Consumer Sciences (NATFACS)[42]**—**NATFACS is an individual membership organization that provides for group expression and group action dealing with problems of national importance to family and consumer sciences.

National Business Education Association (NBEA)[43]**—** NBEA is devoted exclusively to serving individuals and groups engaged in instruction, administration, research and dissemination of information for and about business.

NBEA is devoted to the recognition that business education competencies are essential for all individuals in today's fast-changing society. It is an individual membership organization.

National Career Academy Coalition (NCAC)[44]**—**NCAC provides technical assistance, training and support to career academies. NCAC also evaluates career academies based on the National Standards of Practice.

National Career Pathways Network (NCPN)[45]**—**NCPN is an individual membership organization for educators and employers involved in the advancement of career pathways and related education reform initiatives.

National Consortium for Health Science Education (NCHSE)[46]**—**NCHSE is a membership organization comprised of those who support the mission, purpose and goals of the consortium. Representation on the current board of directors is a contingency of local education agencies, state education agencies, postsecondary education representatives, professional associations, health-care partners, publishing companies and others who create health science education curriculum and products.

National Council of Local Administrators (NCLA)[47]**—**The purpose of NCLA is to provide leadership and advocacy in the promotion and development of CTE in the secondary and postsecondary school systems of the United States and its territories. NCLA is an individual membership organization that requires ACTE membership.

Additional CTE Facts/Talking Points

CTE Increases Student Achievement:

- A ratio of one CTE class for every two academic classes minimizes the risk of students dropping out of high school. (Plank et al. (2005). *Dropping Out of High School and the Place of Career and Technical Education*)
- The more students participate in CTSO activities, the higher their academic motivation, academic engagement, grades, career self-efficacy and college aspirations. (Alfeld et al. (2007). *Looking Inside the Black Box: The Value Added by Career and Technical Student Organizations to Students' High School Experience*)
- CTE students are significantly more likely than their non-CTE counterparts to report that they developed problem-solving, project-completion, research, math, college application, work-related, communication, time-management and critical-thinking skills during high school. (Lekes et al. (2007). *Career and Technical Education Pathway Programs, Academic Performance, and the Transition to College and Career*)
- Postsecondary CTE concentrators achieve significantly higher earnings than those who majored in academic fields, particularly those employed in an industry related to their program of study. (Jacobson and Mokher, *Florida Study of Career and Technical Education,* 2014*,* as cited in the 2014 National Assessment of CTE Final Report)

CTE Meets Individual and Community Economic Needs:

More than 75 percent of manufacturers report a moderate to severe skills shortage, resulting in an increase in overtime costs and an annual loss of 11 percent of earnings. CTE plays a vital role in helping American businesses close this gap by building a competitive workforce for the 21st century. (Accenture and The Manufacturing Institute, *Out of Inventory: Skills Shortage Threatens Growth for U.S. Manufacturing*, 2014)

Middle-skill jobs, jobs that require education and training beyond high school but less than a bachelor's degree, are a significant part of the economy. Of the 55 million job openings created by 2020, 30 percent will require some college or a two-year associate degree. (Carnevale et al., *Recovery: Job Growth and Education Requirements Through 2020*, Georgetown University Center on Education and the Workforce, 2013)

Communities across the nation benefit from CTE. In Washington, for every dollar spent on secondary CTE students, taxpayers will receive $9 in revenues and benefits. In Connecticut, every public dollar invested in community colleges returns $16.40 over the course of students' careers. Los Angeles County's economy receives roughly $9.1 billion annually from the Los Angeles Community College District. (Washington State Workforce Training and Education Coordinating Board, *2014 Workforce Training Results*; Robison and Christophersen, *The Economic Contribution of Connecticut's Community Colleges* and *Economic Contribution of the Los Angeles Community College District,* 2008)

CTE Resources to Share

- **Sector Sheets** describe CTE's role in growing the qualified workforce for vital industry sectors. Share these advocacy tools with industry, education leaders, policymakers and the public to demonstrate how CTE supports specific industries and prepares students for career success.
- **Microdocs—**through these compelling and inspirational stories, students will encounter peers who once shared their fears about finding the right educational pathway but found the opportunity to thrive through their CTE programs. Microdocumentaries will help students understand that CTE has expanded to include rigorous programs of study in traditional fields, as well as new and emerging career paths. These microdocumentaries will also describe how CTE prepares young people for high-tech STEM careers.
- ***Your First Year in CTE: 10 Things to Know***—Many CTE teachers enter education through an alternate path, usually without a traditional education degree, making a career change to enter the classroom. Not only do CTE teachers need to maintain currency within their technical field, but they must also become quickly familiar with teaching pedagogy while simultaneously working in a new environment. A strong support system is essential, and knowing where to turn for resources is equally as important. ACTE and NOCTI have released *Your First Year in CTE: 10 Things to Know*. Providing many hands-on examples and resources for use in teaching within the CTE classroom, this book is an excellent resource for both new and veteran CTE teachers to "survive" and "thrive" in the CTE classroom!

Resources:

1. www.bls.gov
2. www.doleta.gov
3. www2.ed.gov/about/offices/list/ovae/index.html
4. ctecenter.ed.gov
5. www.natef.org
6. www.nccer.org
7. www.ffa.org/thecouncil/
8. www.act.org
9. www.mbaresearch.org/
10. www.nocti.org
11. www.pltw.org/index.html
12. www.sreb.org
13. www.nths.org
14. www.ctsos.org/ctsos/business-professionals-of-america
15. www.deca.org
16. www.fcclainc.org
17. www.fbla-pbl.org
18. www.educatorsrising.org
19. www.hosa.org
20. www.ffa.org
21. www.nationalpas.org
22. www.nyfea.org
23. www.skillsusa.org
24. www.tsaweb.org
25. www.ctsos.org
26. www.aaaeonline.org
27. www.aafcs.org
28. www.acteonline.org
29. www.public.iastate.edu/~laanan/actermain/home.shtml
30. www.astsonline.org
31. www.cteec.org
32. www.epsilonpitau.org
33. www.iveta.org
34. www.nationalmea.com
35. www.naae.org
36. www.nassp.org
37. www.nasafacs.org
38. www.careertech.org
39. www.ffa.org/ffa2015/Pages/NASAE-home.aspx
40. www.nasbe.us
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