High-quality CTE programs of study enable students to explore careers and make informed decisions to help them achieve their goals. Federal, state and local policies, as well as standards and frameworks that consider CTE quality, are increasingly recognizing the value in providing students with opportunities to learn about themselves and develop personalized pathways that lead to fulfilling, family-sustaining careers.

For this reason, ACTE has identified Student Career Development as one of the 12 elements of high-quality CTE in the ACTE Quality CTE Program of Study Framework. Criteria in the framework describe how a quality career development system helps students gain career knowledge and engage in education and career planning and decision-making through comprehensive and systemic career development services; individualized career and academic planning; up-to-date information; job search and placement services as the student nears program completion; and continued learning for career development professionals. Program of study staff and career counselors have flexibility to employ a variety of delivery methods and strategies to meet these criteria, including career counseling, career assessments and curricula that helps students learn about careers.

This publication will share the Quality CTE Program of Study Framework criteria within the Student Career Development element, recommend types of evidence that programs should consider when assessing their performance on these quality criteria, and describe CTE programs that are delivering quality career development and exploration to students. The criteria listed are from the 2018 version of the ACTE Quality CTE Program of Study Framework.

**The ACTE Quality CTE Program of Study Framework**

Student Career Development is one of 12 elements in the ACTE Quality CTE Program of Study Framework, a comprehensive, evidence-based set of quality standards for CTE programs. The framework defines 92 criteria across 12 elements of a high-quality CTE program of study:

- Standards-aligned and Integrated Curriculum
- Sequencing and Articulation
- Student Assessment
- Prepared and Effective Program Staff
- Engaging Instruction
- Access and Equity
- Facilities, Equipment, Technology and Materials
- Business and Community Partnerships
- Student Career Development
- Career and Technical Student Organizations
- Work-based Learning
- Data and Program Improvement

In addition to serving as a guide for ACTE’s professional development, recognition and dissemination activities, the framework is a voluntary tool for local self-assessment and program improvement. It is accompanied by a program self-evaluation instrument, which can be completed in print or online. If filled out online, users can receive automatically calculated scores, save and print their results, and be connected to ACTE’s High-quality CTE Tools online library for areas identified as needing improvement.

The program self-evaluation is designed for use by individual, local CTE programs of study spanning secondary and postsecondary education, although it can be adapted to other units of analysis such as schools, districts or career academies. Using the tool to its fullest necessitates a collaborative effort among local secondary and postsecondary CTE educators, staff and stakeholders, such as career development professionals and advisory group members. The program self-evaluation can also contribute to the comprehensive local needs assessment re-

Developing the ACTE Quality CTE Program of Study Framework

“High-quality CTE” is a phrase heard with increasing frequency in the national dialogue around ensuring that individuals and employers have the skills needed for success. But what is high-quality CTE, and how can it be used to evaluate programs, determine areas for targeted improvement and recognize successful elements that should be scaled?

To develop a rigorous definition of high-quality CTE, ACTE staff began by examining existing frameworks and standards developed by national education and workforce organizations and government agencies that describe quality for CTE programs and schools, career academies, career pathways and related initiatives. We analyzed standards and frameworks from the U.S. Department of Education Office of Career, Technical and Adult Education; National Career Academy Coalition; National Academy Foundation; Southern Regional Education Board; Council on Occupational Education; National Center for College and Career Transitions; and ConnectEd California, among others.

This review concluded that, while there were many commonalities among these frameworks, there was content missing with relevance to CTE, and generally, few sets of quality standards directed at individual, local programs of study (Imperatore & Hyslop, 2015).

We supplemented our initial analysis with more in-depth content coding of these national-level quality materials. In addition, we reviewed supplementary national tools, state quality documents and standards that address quality in relation to a specific topic, such as project-based learning or advisory committees. We also partnered with Regional Educational Laboratory–Central for assistance in analyzing state CTE standards and sought stakeholder feedback through focus groups, surveys and review by subject matter experts.

Through this analysis and content coding, we identified how frequently content areas were included in these materials and specific terminology used across various documents. This helped us ensure, when developing the ACTE framework, that our criteria reflected areas of consensus within the CTE community, while addressing some of the gaps noted earlier.

Pilot testing in 2018 helped us identify final revisions to the framework and provided insights on how ACTE can best use the framework and make it available to CTE educators. Data from the self-evaluation instrument was correlated with program-level Perkins performance data to determine if programs with high scores on the framework also perform well on select Perkins accountability indicators. Results show a significant positive relationship between scores on the self-evaluation rubric and performance on the Perkins accountability indicators for technical skills attainment and for completion/credential attainment. In addition, the majority of participants reported finding the evaluation instrument easy to use and gaining new knowledge about their programs.

Following pilot testing, ACTE released the 2018 Quality CTE Program of Study Framework and the accompanying print and online program self-evaluation instrument in fall 2018.

The History of Student Career Development

More than 100 years ago, social justice advocates recognized the need for career guidance, as the industrial economy boomed and Americans from rural areas and new immigrants flocked to cities. To help these individuals make informed decisions about jobs and improve their lives, a bureau of vocational guidance opened in 1908 in Boston (Wilson, 2013). Its director, Frank Parsons, developed a model for vocational guidance that connected individuals’ aptitudes, interests and limitations to occupational requirements and opportunities. Five years later, the National Vocational Guidance Association (now the National Career Development Association (NCDA)) was formed.

Federal policy since then has increasingly recognized the importance of career development. The Manpower Development and Training Act of 1962 (the precursor to the Workforce Innovation and Opportunity Act) emphasized counseling and placement services as part of efforts to train and retrain economically disadvantaged, unemployed and underemployed adults (Evans & Herr, 1973, as cited in Gordon, 2014). One year later, the Vocational Education Act of 1963 “reaffirmed the reciprocal needs of vocational education and vocational guidance” (Evans & Herr, 1973, as cited in Gordon, 2014). This act also redirected funding from particular fields of study toward individual students and their needs, interests and abilities (Gordon, 2014).

As interest in career development grew in the late 20th and early 21st centuries, CTE leaders around the nation began embracing the interrelated concepts of Career Clusters®, career pathways and programs of study that enable students to identify and plan for education and career goals. Specifically, the federal Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Perkins IV) introduced programs of study, which align curriculum and course sequences across secondary and postsecondary education and lead to a valuable industry-recognized credential. “School counseling and academic advisement” was defined by the U.S. Department of Education as one of the 10 elements that support implementation of programs of study.

Most recently, Perkins V expanded the definition of CTE to include career exploration in high school and the middle grades, and the law lists career development as a required use of funds for local recipients of the grant.

Career development has also increasingly been addressed in state legislation. As of 2015, 29 states and the District of Columbia had mandated that students develop individual education and career plans (also known as individualized graduation or learning plans) and use these plans to guide their education and career decision-making (National Association for College Admission Counseling & Hobsons, 2016). In addition, a number of states have expanded access to career guidance and planning into the middle grades, and others have established programs to increase career information available to students. For example, Alabama created the statewide College and Career Coaches initiative, through which college and career coaches communicate CTE opportunities and provide career counseling, financial aid guidance and other supports to students in grades 7-12.
Collaborative on Workforce and Disability for Youth, 2013). For instance, Career and Technical Student Organizations (CTSO) can help to focus on in high school. They conduct in-person and virtual interviews with students to learn about careers (Hughes & Karp, 2004; National Collaborative on Workforce and Disability for Youth, 2013). In these experiences, the student development system, so evaluating this criteria requires a team effort among CTE practitioners and counseling and advisement professionals across a district, service area or institution. This self-evaluation should examine the career development standards used in and across learner levels, consider how well services are aligned to these standards, and assess the sequencing of career exploration courses and activities.

Within your CTE program, consider the alignment between career development standards and formal and informal curriculum and lesson plans that incorporate career information and planning. Also, consider your procedures for integrating student goals and plans into decision-making about CTSO activities and work-based learning experiences. In addition, reflect on the activities you engage in to promote your program of study with students before they enroll. Do you share about your program of study at open houses or similar events, and is this promotion designed to be inclusive of all students?

### Peoria Unified School District’s Technology Life Careers Curriculum

Peoria Unified School District in Arizona is leading the way in middle grades career exploration with a required two-year curriculum for seventh- and eighth-grade students called Technology Life Careers (TLC).

After the first quarter, which provides an overview of a wide variety of careers, students spend the next quarters rotating through more focused experiences in six career areas:

- business, marketing and management
- communication and information systems
- environmental and agricultural systems
- health services
- human services and resources
- industrial, manufacturing and engineering systems

The TLC curriculum integrates classroom- and lab-based instruction, hands-on application, virtual and in-person work-based learning experiences, and student organizations such as HOSA–Future Health Professionals, Future Business Leaders of America and SkillsUSA. In addition, TLC incorporates career assessments and interest inventories and addresses employability and job search skills such as resume writing and interviewing.

The program culminates with students choosing two of the six career areas to focus on in high school. They conduct in-person and virtual interviews with professionals and older students from their two career areas of interest and participate in a career fair. Students also start their Education and Career Action Plans (ECAPs) and register for high school courses.

TLC takes place on the middle grades’ campus and is taught by CTE-certified teachers and supported by counselors. In a few instances, high school students have served as teachers, such as when auto technology students led a lesson about four-stroke engines over Skype.
Career and Academic Planning
b. Each CTE student in the program of study has a personalized, multi-year education and career plan that reflects exploration of the student’s interests, preferences and abilities; and informs course selection, planning for further education and a career, and involvement in extended learning.

Personalized planning for education and careers is fundamental to quality career development and has been found to benefit students with increased motivation, better grades and selection of more rigorous courses (Solberg et al., n.d.; Budge, Solberg, Phelps, Haakenson & Durham, 2010, as cited in Solberg, Phelps, Haakenson, Durham & Timmons, 2012).

Individualized planning evolves with students and responds to changes in local and regional education and employment opportunities. The plan should be consulted annually, at a minimum, and at key decision points throughout the student’s academic and career pathway; should inform decisions about experiential learning and articulated credit; and should coordinate with a student’s Individualized Education Program (IEP), required under the Individuals with Disabilities Education Act, if applicable. When students are minors, state and district regulations frequently require that parents/guardians be given regular opportunities to participate in this process.

Technology facilitates this process through online exploration and planning programs that incorporate interest, skill and learning styles inventories; current information on education and careers; and electronic portfolios of relevant materials such as transcripts, results from individual and career assessments, and work-based learning reflections.

These personalized plans are increasingly required for students in K-12 education through state or local mandates, which may include preferred providers for online platforms. For instance, Wisconsin offers support to school districts on implementing Xello (formerly Career Cruising) as the online exploration and planning tool for the state’s required Academic and Career Planning program.

On the postsecondary level, this planning is best exemplified by the guided pathways model. Guided pathways incorporate a variety of supports to help students better navigate postsecondary education, notably program maps that enable students and advisors to create customized plans from program start to completion. Early research findings from colleges that have implemented guided pathways demonstrate improved retention and completion and fewer excess credits (Bailey, Jaggars & Jenkins, 2015).

To consider performance on this criterion, career development providers should assess implementation of state, local and/or institutional mandates: Are school counselors and advisers using these plans to their fullest extent? Are counselors helping students interpret the results of their personal and career assessments, and determine how their program of study participation relates to their future goals?

CTE educators have a role to play, too. Consider formal and informal ways that you help students determine their goals, interests and aptitudes through coursework as well as CTSO and work-based learning experiences. You can also examine your procedures for sharing information that can impact plan development. Do you communicate with counselors about credit transfer agreements that facilitate student transition to college within the program of study? Are there mechanisms for incorporating work-based learning evaluations and classroom-based career exploration activities into portfolios used for career planning? Do CTE educators and counselors collaborate to co-teach or co-facilitate career exploration activities?

Career and Academic Planning in Phoenix Union High School District
All high schools in Arizona’s Phoenix Union High School District use Xello to help students take ownership over their career exploration and planning.

Through self-guided investigation with Xello and activities led by CTE-certified teachers, students identify a career of interest and design the education and employment pathway that will help them achieve that goal. Xello can help students and counselors ensure the alignment of this personalized pathway to the state’s ECAP.

According to Amanda Nolasco, counselor facilitator for the district, students are excited to use Xello to support career exploration and respond well to its data visualization and ease of navigation. In addition, Nolasco uses Xello data to help CTE programs recruit students by creating reports that show the students who have matched with or chosen a particular career area as an interest. These students are then invited to an assembly to learn about the related CTE program from students who are currently participating.

Xello is a relatively new tool for Phoenix Union High School District, and Nolasco is providing monthly two-hour trainings with CTE educators and counselors to familiarize them with different aspects of the program. The district is also moving to offer more evening events related to career development so parents can be more engaged in their child’s career exploration and planning.

Information and Dissemination
d. Students in the program of study and their parents/guardians (as appropriate) are provided accurate and timely information on extended learning experiences available through the program of study, such as work-based learning, CTSO participation and articulated credit.

e. Students in the program of study and their parents/guardians (as appropriate) are provided accurate and timely information on further education and training options, including application procedures, enrollment, financing, and their projected educational, employment and earnings outcomes.

f. Students in the program of study and their parents/guardians (as appropriate) are provided accurate and timely information on regional occupational trends and outlooks, high-demand and high-wage career opportunities, and the educational pathways that lead to current and projected career opportunities.

High-quality career development is information-intensive. In addition to the self-knowledge they cultivate throughout this process, students need access to information about opportunities within the program of study, such as work-based learning, CTSOs, dual enrollment and credit transfer agreements, as well as information about local and regional education and job opportunities.
As noted earlier, online systems can support these information needs by merging data from a variety of sources. Many community colleges also provide occupation-specific employment and earnings information on their websites. Counselors and advisers should be familiar with the most relevant labor market data sources, such as current and projected employment data available through a state labor market information system and occupational profiles from the U.S. Bureau of Labor Statistics. Real-time jobs postings are another useful information source, but can be difficult to interpret.

While technology is beneficial for accessing and communicating career information, face-to-face interactions and more traditional forms of dissemination remain important. Students need counselors and advisers to interpret labor market data with them, and they need CTE educators and business partners to add real-world context. Communications sent home (translated into other languages, if needed); activities in the classroom; and assemblies and career fairs can all be opportunities to share this information.

One way for CTE educators to share career information and program opportunities with students is through projects that ask students to investigate careers or to develop a product or process used in a career that interests them. Guest speakers can also add important context about the joys and challenges of particular career fields. In addition, CTE teachers and administrators are important representatives for their programs at events like career fairs and open houses, where they can engage with students and parents about career and program of study opportunities.

As with prior criteria, evaluating performance in this area requires looking beyond your program of study to the broader career development system in your district, institution or service area. Career development professionals can evaluate information sources to ensure that data is valid, reliable and current. Counselors and advisors can also consult calendars that show when career and education planning information is shared and how it is shared through print, electronic and in-person communications. This may include examining email open rates and social media views, as well as evaluating messaging. For instance, do communications give as much weight to CTE opportunities and career planning as to academic opportunities?

Within the program of study, CTE educators and administrators should evaluate classroom and experiential learning activities that incorporate career information. Are activities and guest speakers exposing students to the breadth of careers available? Are you enabling students to go deeper to learn about particular careers of interest, and the education pathways that lead to those careers? Is this information communicated in a way that is inclusive across gender, race and ethnicity, and for special populations?

**Workforce Transition**

Students in the program of study have access to job search information and placement services as they near completion of the program of study.

High-quality career development systems offer resources and supports to help students find work in a relevant career field, such as free access to online job search websites, help with writing and revising resumes, and opportunities for mock interviews. This criterion will most often apply to the postsecondary partner in a program of study. Campus career services are one source for these supports, offering individual advising and, at many colleges, opportunities such as career fairs and career planning workshops. To encourage students to access the career center early and often, CTE faculty can bring career services representatives into the classroom so students can hear from them about the services offered. The case study of Howard Community College’s career services in this paper describes an example of excellence in this area.

However, campus centers are not the only venue for these services. Many career service centers were designed for the needs of young, full-time students who are looking to start their careers at the entry level, and may not offer the supports needed by working students, first-generation students and low-skilled adults. To bridge the disconnect between career services and these populations, some community colleges have hired career coaches to offer more specific, intensive advising on career opportunities from program intake through completion.

Industry advisory boards are another important, program-specific source for internship and job placement assistance. By engaging partners in curriculum design and validation and in providing work-based learning experiences, CTE instructors and administrators can ensure that students develop the skills needed by the local workforce and can directly connect students to employment opportunities.

Assessing opportunities for your students on this criterion will require the input of campus career advisers about career services offered and their accessibility. For instance, can adults who work during the day access career services in the evenings or on the weekends, or virtually through video meetings or webinars? Are there breadth of careers represented in campus career fairs? Could your campus benefit from additional staff members like career coaches?

CTE educators can evaluate partner opportunities and student placement data. How many of your industry partners offer jobs, or internships or apprenticeships that can lead to jobs? Do your students have access to mentors who can help them prepare for interviews and jobs? What percentage of students have gotten jobs with your partners? Are there new partners you could engage who have more employment opportunities? In addition, look at any curriculum and lesson plans that address employability skills like job searching, resume writing and interviewing. If you are already teaching these skills, are your students getting positive feedback from job interviews? If you aren’t addressing these skills, could you make time in the curriculum to do so?

**Howard Community College’s Counseling and Career Services**

At Howard Community College (HCC) in Columbia, Maryland, the Counseling and Career Services department blends personal and career counseling to support students and the community.

Career services offered range from career assessments to help finding internships and cooperative education experiences to resume review, mock interviewing and job search assistance. The department also hosts on-campus recruiting for employers singly and through job fairs—the last one attracted about 125 employers and 600 attendees—and operates HCC
Job Connection, a job and internship posting site. In addition to students, community members receive free assistance with job search and application.

Collaboration with program faculty is key to HCC’s career services. The department hosts career development workshops, as part of the college’s First Year Experience course; brings in guest speakers from industry; and is frequently invited into the classroom. For instance, counselors might attend a class period to share resume and cover letter writing tips. The instructor then assigns students to draft their own cover letters and resumes, and make appointments to review them with Counseling and Career Services staff.

Psychologists and counselors provide single-focus and blended counseling that can help students with both personal and career planning issues, such as coping with social anxiety while interviewing for jobs. According to Dr. David Tirpak, associate director for career and employment counseling, pairing personal counseling with career services helps bring in people who need support but are reluctant to ask for help because there is less of a stigma associated with career counseling. Counseling is available in the evenings with staff members who can provide both personal and career development services.

In addition, the Counseling and Career Services Department provides a completion support program for single parents and displaced homemakers as well as a program that matches students with disabilities with internship opportunities in the federal government.

**Professional Development**

Career development professionals have access to professional development and up-to-date information on extended learning experiences, education and training options, and regional occupational trends to aid students in education and career planning and decision-making.

To be effective in meeting these criteria, counselors, advisers and educators who participate in student career development need opportunities to build their knowledge and skills in career development theory; using personal and career assessments effectively; accessing and interpreting data; and providing unbiased, equitable career guidance to students from a variety of different backgrounds.

All the staff members within a program, district or institution who wear the “career development” hat need access to this professional learning at varying levels of intensity, including career development coordinators and facilitators, school counselors, college advisers, and CTE administrators and educators. In particular, school counselors with multiple responsibilities and high counselor-to-student ratios may need help integrating career development and planning with the other services they provide to students (Advance CTE & ASCA, 2018). CTE educators who teach career exploration courses or who are responsible for helping students develop individualized education and career plans also need intensive, targeted training.

As with all quality professional development, these experiences should be intensive and sustained and can be provided locally, by the state or with a relevant third-party organization like NCDA or ASCA. In addition to professional learning, career development professionals need consistent access to current data and information. While program of study staff can be effective information sources for school counselors and advisers, CTE teachers and administrators cannot be the only sources. Information about local and regional career opportunities and the education needed to achieve career goals must be made available in a systematic way.

To evaluate performance on this criterion, consider the professional development offered to CTE educators, counselors and advisers that includes career development content. Are these opportunities substantive and part of ongoing professional learning? Are they aligned to relevant career development standards and to labor market trends? Are these experiences rated highly by participating staff? Does this professional learning address navigating information sources and translating data so it can meaningfully inform career exploration and planning?

**Randolph County Schools’ Career Development Coordinators**

In North Carolina, career development coordinators (CDCs) around the state support CTE and coordinate career development services in alignment with the North Carolina Standard Course of Study and national career development and counseling guidelines.

Randolph County Schools has a full-time CDC at each high school who also serves that high school’s feeder middle schools. CDCs function as the point person for career development across institutions and in cooperation with school counselors, teachers, dropout prevention specialists and career coaches provided by the local community college. They play a role in delivering or facilitating such services as:

- middle school CTE courses
- a ninth-grade career exploration and management course
- work-based learning experiences
- career and academic planning
- career exploration events

CDCs support individualized career and academic planning beginning in sixth grade through Career Development Notebooks, which students use to track their interests and goals, and through Career Development Plans that help students chart their course through high school and on to the next stage of life, whether that be enrolling in a certificate, associate or bachelor’s degree program; starting an apprenticeship; or getting a job. The Career Development Plan template is formatted to help students clearly articulate goals and identify activities that can achieve those goals, including industry-recognized credentials, work-based learning experiences and CTE courses.

In addition, CDCs secure work-based learning opportunities, starting in elementary school with field trips, intensifying in grades 6-8 with guest speakers and industry tours, and culminating in high school with internships and apprenticeships. They also organize events like a recent Career Truck Fair that featured specialized vehicles, including a medical transport helicopter, as well as Manufacturing, Agriculture and Health Science Days that incorporate industry and community college partners.

**Additional Criteria Relevant to Student Career Development**

These eight criteria within the Student Career Development element speak directly to career development and exploration services offered to students. However, other elements in the framework contain criteria relevant to career development:
Defining Quality: Student Career Development

ACTE recommends the following steps:

1. **Identify stakeholders**
   - Consider carefully who to bring to the table to complete the self-evaluation instrument. While the self-evaluation instrument can be filled out by a single program representative, it is most effective when completed as part of a collaborative effort among program stakeholders.

2. **Gather materials**
   - Compile information and data to help you evaluate your program of study against the framework criteria. A wide variety of materials will be helpful, including student data, curriculum and lesson plans, program policies and procedures, and findings from surveys and focus groups.

3. **Discuss and complete**
   - Convene a meeting with stakeholders to discuss and evaluate your program of study. Assign a program representative to fill in the rubric (in print or online) and another to record insights gleaned from the discussion. While you do not need to submit your evidence base for the self-evaluation, you can use these materials to guide your conversation.

4. **Address elements identified as needing improvement**
   - If you fill out the program self-evaluation online, you will receive automatically calculated scores overall and for each of the 12 elements. In addition, you will be connected to resources that can help you with elements identified as needing improvement, based on your scores. Use these scores, and the insights you gain from your stakeholder discussion, to craft a plan for improving the quality of areas in need of improvement, while maintaining quality for your higher-scoring elements.

In addition to program improvement, programs of study can use this tool to determine where to direct resources for technical assistance and professional development, to recognize quality programs and for program approval.

**Conclusion**

Comprehensive career development and exploration enables students to realize their goals. Quality career development systems are characterized by coordination across learner levels and between CTE and counseling and advising professionals; education and career planning that is personalized to the student and based on current, accurate information; assistance transitioning to the workforce, when appropriate; and professional development so that counselors, advisers, teachers, administrators and others can effectively deliver these services and supports.

ACTE’s Quality CTE Program of Study Framework can help programs of study assess the quality of their student career development, and program quality overall, and identify areas for improvement in order to better inspire and prepare students for fulfilling careers and further education.

**REFERENCES**


