In 2010, the National Association of State Directors of Career Technical Education Consortium (NASDCTEC) convened a seminal event that resulted in all 50 states and many partners committing to the principles and action steps defined in \textit{Reflect, Transform & Lead: A New Vision for Career Technical Education}, specifically that, for CTE to reach its full promise, it must:

1. Ensure that the United States leads in global competitiveness;
2. Actively partner with employers to design and provide high-quality, dynamic programs;
3. Prepare students to succeed in further education and careers;
4. Be delivered through comprehensive programs of study aligned to The National Career Clusters® Framework; and
5. Be a results-driven system that demonstrates a positive return on investment.

This Vision has been impactful, resulting in tangible advances – some of which we will highlight below – as well as many intangible benefits. Most importantly, this Vision has provided a clear signal to the CTE community about the direction in which we are moving collectively and to the nation that we are committed to high-quality programs.

Now, five years later and with more interest and activity around CTE and career readiness than ever before, it is time to revisit this Vision. In anticipation of “The Future of CTE Summit,” we have written a series of short briefs to take stock of what has been accomplished and what still needs attention since the release of the original Vision.

\textbf{This brief will explore the third principle:}
\textit{CTE prepares students to succeed in further education and careers}

The false dichotomy of preparation for work or college is no longer relevant. The global economy places a premium on skills acquisition and innovation. Therefore, all workers must be lifelong learners who continue to cultivate and grow their knowledge and skills through further education. CTE programs prepare students to be successful by providing adaptable skills and knowledge, thereby ensuring flexibility to transition careers as interests change, opportunities emerge and the economy transforms.

\textit{To accomplish this, we must:}

- Support policies that require all students to have a personalized learning plan
- Promote the acquisition of college- and career-ready standards, aligned to The National Career Clusters® Essential Knowledge and Skills Statements (or Common Career Technical Core) for all students
- Aspire to have CTE be performance-based, student-centered programs that are delivered without regard to time or place
- Support the development of valid, reliable and rigorous national technical assessments, aligned to a national core of technical standards, resulting in recognized and portable credentials
PROGRESS TO DATE
Since 2010, CTE increasingly has become a key element of the broader college- and career-ready agenda, with states taking initial steps to eliminate silos between CTE and academics and more students building a bridge between the two.

CTE as the Norm for All High School Students
Ninety-two percent of students take at least CTE course in high school, and 60 percent of graduates are completing both a college-prep curriculum and between two and four CTE courses.

College as the Norm for CTE Students
CTE concentrators are also increasingly likely to pursue postsecondary education as a necessary component of their career pathway.

• Seventy-eight percent of CTE concentrators enroll in postsecondary education, full time, within two years of graduation.

• About one third of all dual enrollment credits – about 600,000 in all – are earned in CTE courses. States like Kansas are incentivizing this practice by prioritizing funding for dual enrollment courses in CTE over academic subjects.

College is No Longer the End Point
Historically, there were only a few well-defined options for Americans – finish high school and enter the workplace (and earn a family-sustaining wage) or go on to a four-year college.

In recent years, postsecondary opportunities have grown and now range from the brick-and-mortar, two- and four-year public and private institutions that grant degrees and certificates to distance learning and other emerging models such as massive online open courses (MOOCs), open badges and boot camps. While quality does vary, the diversity allows learners to gain knowledge and skills at all points throughout their lives.

NASDCTEc launched the Career Readiness Partner Council (CRPC) as a broad-based coalition of over 20 education, policy, business and philanthropic organizations that worked collaboratively to establish a more comprehensive vision for what it means to be career ready.

In October 2012, the CRPC released a statement that articulated a clear, unified and focused vision for what it means to be career ready – Building Blocks for Change: What it Means to be Career Ready.

To be career ready in our ever-changing global economy requires adaptability and a commitment to lifelong learning, along with mastery of key academic, technical and workplace knowledge, skills and dispositions that vary from one career to another and change over time as a person progresses along a developmental continuum.

These inter-dependent and mutually reinforcing skills include:
• Academic Knowledge and Skills,
• Technical Knowledge and Skills, and
• Employability Knowledge, Skills and Dispositions, which are inter-dependent and mutually reinforcing

Central to this definition is the idea that career readiness has no defined endpoint, and that “college” is actually just an element of an individual’s path to career readiness.
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- One of the biggest drivers of this change is the fact that a high school diploma is no longer enough. About two-thirds of all jobs require some education and training beyond high school – with a pay premium to match.

- Relatedly, more individuals are pursuing postsecondary education and training later in life to gain more skills and credentials. For example, about a third of all individuals enrolled in California’s community colleges are considered “skills-builders,” aiming to get additional training to become more competitive in their current workplace or the broader job market.

“Students should no longer need to decide between college readiness and career preparation – it’s possible and increasingly necessary to achieve both.”
– Tim Hodges, Director of Research, Gallup Education

Defining & Valuing Career Readiness
As states implement the college- and career-ready agenda, many are looking to find ways to define and value the “career” in those policies and programs, particularly at the secondary level.

- Thirty-three states have a common definition for college and career readiness, and about a third of these definitions include the full range of college- and career-ready academic, technical and employability skills. Only a handful of states have a stand-alone definition for college readiness or career readiness, demonstrating a commitment to finding the common ground between the two.

- Many states are exploring ways to build indicators of college and career readiness into their reporting and accountability systems. Much of this activity only has occurred in the last few years, prompted by the drive to better value, promote and incentivize college and career readiness for all students as well as the emphasis put on college and career readiness in the Elementary & Secondary Education Act’s waiver process. Twenty-two states currently include at least one indicator of career readiness on their school report cards and sixteen states include a career-ready indicator(s) in their state accountability systems.

- To ensure career readiness was given the attention it needed, the Council of Chief State School Officers (CCSSO) convened a task force of chief state school officers, state CTE directors and key national partners to create recommendations for supporting career readiness and career education for all students.

More Flexibility across CTE & Academic Areas
Most states have policies in place that allow students to flexibly earn CTE or academic credit, either by allowing CTE courses to count towards academic requirements (and vice versa) or by providing school districts and schools with some flexibility for awarding credit to students based on mastery of content as opposed to seat time. While not always designed with CTE in mind, these policies offer unique opportunities for learning to be valued wherever it is happening, whether in a core academic classroom, CTE lab or even in work-based learning environments.

- About 40 states allow students to earn credit by demonstrating proficiency at the K-12 level, ranging from a system-wide requirement to supporting a few piloted sites or student populations. Efforts like the New England Secondary School Consortium, CCSSO’s innovative Lab Network and Achieve’s Competency-Based Pathways Network are all fostering state-led competency-based education systems.
There is an even greater uptake of competency-based education at the postsecondary level through credit for prior learning, which allows individuals to earn credit based on knowledge and skills gained on the job and through life experiences.

- **As of 2012**, 20 states had a state- or system-wide policy on credit for prior learning, and 59 percent and 37 percent, respectively, of public four-year and two-year institutions issued credits through prior learning assessments.

**WHERE MORE WORK IS NEEDED**

While the progress described above is extensive, there is no question that more work needs to be done to fully meet this principle.

**Technical Skills Assessments as Part of a Comprehensive Assessment System**

One of the action items identified by this principle was to develop valid and reliable national technical assessments that result in recognized and portable credentials. While there has been tremendous activity around industry-based credentials and assessments in the past five years, as well as continued support for other measures of career readiness, there remains much confusion and noise within the system.

One reason is that as the availability of industry-recognized credentials has grown, so has the market, without providing its consumers (students) with accessible and meaningful information about which credentials hold the most value in the labor market. While there are some states and organizations looking to build systems that quantify the value and return on investment of credentials, this is still very much in process. Some states and institutions are also exploring how credentials might articulate to postsecondary credit – potentially as a prior learning assessment or a type of dual credit – but this is also an emerging area of work.

Also, given industry-recognized credentials can only measure certain skills, they fall short of being able to measure of the full range of career-ready knowledge, skills and dispositions defined by the Career Readiness Partnership Council. There needs to be more thought given to supporting comprehensive assessment systems rather than individual tests.

**Integration of Academic, Technical & Employability Knowledge and Skills**

While there are model programs, schools and policies that promote the integration of academic and technical knowledge and skills, more often than not, they remain in silos. Students are still put in a position to choose between CTE and academic courses based on graduation requirements, counseling practices and other longstanding factors, and states haven’t built comprehensive systems that allow for multiple, truly equally rigorous pathways to emerge.

The Common Core State Standards and Next Generation Science Standards offer some promise with their focus on literacy across the content areas and cross-cutting concepts, respectively, but there needs to be much more support and effort at the national, state and local levels for these new standards to have an impact on CTE and vice versa. Otherwise, these silos will persist.
Such integration is generally more successful at the postsecondary level, with academics and technical knowledge and skills fully integrated within many associate degree or certificate programs. Yet, there is still a clear divide between “higher education” and “postsecondary training” in federal and state policies, which leads to a fragmented system.

**Best Practices for Career/Academic Planning**

Thirty-eight states, including the District of Columbia, currently use individualized learning plans (ILPs) at the K-12 level that focus on career and academic advisement. Most states require ILPs for all students, making them a common practice. The largely unanswered question is whether they are having a meaningful impact on students’ high school experiences and post-high school preparation. More research is needed to understand what truly successful implementation and utilization looks like, including the best time to implement an ILP, assuming high school is too late.

There are also efforts under way at the postsecondary level to better support students – many of whom may not be coming directly from high school – in their academic and career planning. As just one example, Complete College America’s [Guided Pathways to Success](https://www.ccac.org/gps) strategy focuses on working with college students to ensure they choose coherent programs of study in areas that match their interests and skills, with just-in-time advising.

However, many students are entering postsecondary programs without a clear plan, leading to very low completion rates. This speaks to a continued need to ensure students are receiving meaningful guidance and counseling that help students make informed choices throughout the P-20 continuum.

**CONCLUSION**

As we approach the five-year anniversary of the Vision and gear up for an even bolder and broader initiative to create a common vision for high-quality CTE later this year, it is critical to step back and recognize the advances CTE has made in recent years. But we also must look ahead to consider those issues and challenges still not fully addressed, such as:

- How do we break the remaining silos between “college” and “career?”
- What are the major goals and components of an assessment system that can measure the full range of career readiness knowledge and skills?
- How can we measure the value and return on investment of industry-recognized credentials?
- What does or should a fully integrated competency-based system look like at the K-12 level that fully incorporates career readiness and CTE? At the postsecondary level?
- How can individualized learning plans best be implemented and utilized to support students’ career and academic planning? How can we measure success?
- How do we better integrate career exploration and planning along a student’s entire education pathway? And when should this planning begin – late elementary? Middle school? High school?

“It’s crucial to eliminate the silos of academic and CTE coursework as we prepare our students for the 21st century workforce.”

– U.S. Senator Tim Kaine (D-VA)