

U.S. Department of Education

**A Planning Guide for Aligning
Career and Technical Education
(CTE) and Apprenticeship
Programs**

***Mini-Guide for
Local and Regional Teams***



A Planning Guide for Aligning Career and Technical Education (CTE) and Apprenticeship Programs

Mini-Guide for Local and Regional Teams

**Prepared for the U.S. Department of Education
Office of Career, Technical, and Adult Education**

BY

Audrey Denney

Seth Derner

Scott Stump

Vivayic, Inc.

Contributors

Kate Blossveren Kreamer and Andrea Zimmerman, Advance CTE

Charlotte Cahill and Amy Girardi, Jobs for the Future

Laura Rasmussen Foster and Steve Klein, RTI International

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Betsy DeVos

Secretary of Education

Office of Career, Technical, and Adult Education

Michael E. Wooten

Deputy Assistant Secretary

Delegated the Duties of the Assistant Secretary

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ALIGNING SECONDARY CTE AND APPRENTICESHIP PROGRAMS

High school career and technical education (CTE) and apprenticeship programs both seek to equip students with the academic, technical, and employability skills necessary to succeed in high-demand careers. The goal of the Potential Role of Secondary CTE Programs in Preparing Students for Apprenticeship Programs initiative, launched by the U.S. Department of Education's Office of Career, Technical, and Adult Education, was to explore how CTE providers across the United States are working to connect secondary school students with apprenticeship programs. This effort included site visits to eight programs that have aligned CTE instruction and provided students with articulation options to apprenticeship programs. Site visit profiles and a synthesis of results can be found in the [study report](#).

Target Audience

This mini-guide was designed to provide targeted guidance and simple action items to support local and regional efforts for improving student access to apprenticeships. It includes a description of the benefits of aligning CTE and apprenticeship programs, an overview of alignment dimensions, action steps, and local program examples. Content for this mini-guide was drawn from the comprehensive [*Planning Guide for Aligning Career and Technical Education \(CTE\) and Apprenticeship Programs*](#).

BENEFITS OF ALIGNMENT

When an apprenticeship program is aligned to fit within or be a natural extension of a CTE program, more students may choose to enter an apprenticeship and persist once enrolled, building out the pipeline of workers entering the profession. To students and parents, the value is the opportunity for students to engage in real-world, hands-on experiences in the career paths of their interest. An additional value is the opportunity to gain postsecondary credit or even degrees, which is a cost-savings for the students or parents. Aligned programs can

- **increase the quality of CTE programs through expanded industry input.**
 - » To align CTE and apprenticeship programs, the [Green Academy at Salinas High School](#) revised its CTE curriculum to better align to industry expectations.

- **expand post-program options for CTE program completers.**
 - » Participants in [Apprenticeship Catawba](#) can enter an apprenticeship while completing high school. At [Upper Valley Career Center](#), students who complete the pre-apprenticeship program can receive preferred consideration into a registered apprenticeship.

- **improve the quality of apprenticeship programs through stronger education connections.**
 - » In addition to providing a pathway for CTE students to enter an apprenticeship, alignment expands the potential for educational attainment for apprentices. For the [Charleston Youth Apprenticeship Program](#), and nearly all the sites profiled, the apprenticeship training contributes credits toward a high school diploma, a postsecondary certificate, and/or an associate degree.

- **increase the number of qualified apprentices for high-demand, high-wage, and high-skill careers.**
 - » Since 2001, the [Edward J. Malloy Initiative for Construction Skills](#) has placed more than 1,800 graduating high school seniors into apprenticeship programs. Participating unions and employers see these programs as an important stream of diverse talent for New York’s building trades.

SITE PROFILES

Read about the work of eight sites that are making great strides toward aligning their CTE and apprenticeship programs. The profiles describe the history, structure, impact, and partnerships of each program.

Program Name

- [Apprenticeship Catawba – Hickory, NC](#)
- [Bayless Floor Layers Middle Apprenticeship Program – St. Louis, MO](#)
- [Charleston Youth Apprenticeship Program – Charleston, SC](#)
- [Edward J. Malloy Initiative for Construction Skills – New York City, New York](#)
- [Green Academy at Salinas High School – Salinas, CA](#)
- [Puget Sound Skills Center Construction Technology Program – Seattle, WA](#)
- [Tech Ready Apprentices for Careers in Kentucky \(TRACK\) – Dr. Schneider Automotive Systems – Russell Springs, KY](#)
- [Upper Valley Career Center School-to-Apprenticeship Program – Piqua, OH](#)

VIDEOS TO GET YOU STARTED

To deepen your understanding of the benefits of alignment, watch video 1 below, [Expanding Opportunities: Aligning Career and Technical Education \(CTE\) and Apprenticeship](#). Explore the [Elements of Career and Technical Education \(CTE\) and Apprenticeship Alignment](#) in video 2 below, to see the variety of approaches used to meet the needs of students, employers, and education institutions across the country.



DIMENSIONS OF ALIGNMENT

Instructional Alignment

The degree to which secondary school CTE students' instruction aligns with apprenticeship training.

Full— There is no distinction between the content taught in a secondary school CTE program and in the training offered to an apprentice. A fully aligned program provides students with focused skill instruction tailored to address the entry requirements of an apprenticeship. Coursework fulfills both the education requirements necessary for students' high school graduation and the performance expectations of entering an apprenticeship, as well as other educational and career opportunities.

Embedded— Apprenticeship skills training is integrated into a student's CTE program and may be applied towards fulfilling course credit and high school graduation requirements. Students also receive technical instruction that may go beyond the scope of the apprenticeship program and that is intended to prepare them for other educational and career opportunities.

Substituted— All related technical instruction for an apprenticeship is delivered outside of the secondary school setting, typically by a postsecondary education partner or established program intermediary. To increase access to apprenticeship opportunities, secondary school students may not be required to have taken relevant CTE courses prior to entry. Those who are enrolled in a CTE program may be eligible to receive some high school and/or early postsecondary credit within their CTE field of study for the apprenticeship's related technical instruction, with the degree of recognition varying by site.

External— Secondary school students who may be recruited from secondary school CTE programs and other sources, participate in an apprenticeship program with all instruction delivered outside the secondary school setting (during or after the school day). Students participating in such programs receive no education credit, though they may apply some or all of their hours worked toward fulfilling the entry requirements of an employer- or union-sponsored apprenticeship, or be positioned for preferred entry upon completion.

Program Articulation

The extent to which instruction articulates with apprenticeships to ease student entry into programs.

Full— There is no distinction between a CTE program and an apprenticeship program. Students are fully enrolled as apprentices or pre-apprentices while in high school and, upon their graduation, continue on as apprentices, with all credits and hours counting towards full program completion.

Preferred Entry— Students participate in CTE programs that may prepare them for entry into an apprenticeship, though students are not enrolled as apprentices. Apprenticeship and pre-apprenticeship sponsors formally agree to offer preferred entry into their programs to students who complete specific requirements through a CTE program, with the possibility of applying education credits or hours worked toward an apprenticeship.

Optional Entry— Students participate in programs that prepare them for entry into an apprenticeship but they are not formally enrolled as apprentices. Optional entry programs typically do not guarantee students a direct pathway to an apprenticeship program, but rather they are designed to prepare students for multiple post-graduate options, including employment and/or postsecondary education and training. Students opting to continue in an apprenticeship may receive advanced credit for their experiences on a case-by-case basis.

Exploratory— Students participate in programs that allow them to explore career options, which may prepare them for entry into a pre-apprenticeship or an apprenticeship program, but they receive no credit towards their program nor preferential consideration for entry.

DIMENSIONS OF ALIGNMENT

This chart places the eight programs along the alignment dimensions and describes their different approaches. Click on any site to begin.

Alignment Approaches at a Glance

Note: The digital version of this image includes interactive features. Content may be missing when printed.

Instructional Alignment

Sites seeking to connect CTE with high-quality apprenticeship programs took intentional steps to sequence and align instructional content, often with input from employer or labor sponsors. Four common approaches are: Full, Embedded, Substituted, and External.



Program Articulation

The ease and seamlessness of the transition from secondary school CTE to apprenticeships varied across the sites, driven by the programs' goals and designs. Four common degrees of articulation are: Full, Preferred Entry, Optional Entry and Exploratory.

LOCAL AND REGIONAL TEAMS ACTION ITEMS TO CONSIDER

The following lessons learned provide local and regional partners with simple action items to improve CTE student access to apprenticeships.



Find a Champion

Commit resources to support a dedicated, sustained leader to oversee efforts to align CTE and apprenticeship

programs, and coordinate partnerships across programs.



Expand Partnerships

Use intermediaries (industry associations, employer councils, chambers of commerce, nonprofit and community-

based organizations) to serve as a connection among schools, students, and employers, and make students' entry into the programs as smooth as possible.

Work with sector partnerships, or groups of employers within an industry, to strategically recruit other employers to participate in a youth apprenticeship program.

Build and leverage existing relationships between secondary and postsecondary education to develop and scale aligned CTE and apprenticeship programs that offer postsecondary credit.



Get Creative

Provide opportunities for students to participate in apprenticeship programs and classroom training beyond

the traditional school day and setting to maximize their learning opportunities.

Continue to adjust and adapt CTE programs to keep pace with the demands of the labor market, the workplace, and education institutions.

Use examples from the site profiles to build a model that works best for the program and the employer community.



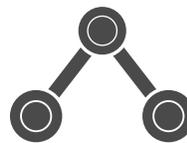
Engage Employers

Allow employers to drive the program's design, which helps earn their trust and commitment to the partnership and

ensures the program will meet labor market needs.

Use an industry-created curriculum to add currency and recognized value among employers.

Develop a critical mass of employer and union partners offering apprenticeships and formalize relationships with them to support student participation and transitions.



Build the Connections

Leverage state policies, such as dual enrollment, to benefit the apprentices, educational institutions, and employers.

Revise or create new local policy to support student and employer participation.

Ensure that the program benefits provided to students are portable to other workplaces and educational institutions.

Build an apprenticeship that acts as a comprehensive benefits package (graduated wages, employment, and postsecondary education), which helps make such a program an attractive postsecondary pathway among both students and parents.



Promote It

Create a school and community-wide culture that values all post-high school options, including apprenticeships.

Communicate program entrance requirements to illustrate high expectations and commitment on the part of students.

Use public events to celebrate the students and sponsoring employers, recruit future participants, and promote the value of CTE-to-apprenticeship programs.



EXAMPLES IN ACTION IN LOCAL AND REGIONAL TEAMS

Due to the complexity involved in connecting CTE and apprenticeship programs, designing the aligned programs can be challenging. These programs do not always fit within traditional methods of delivering CTE and apprenticeship training and, therefore, may require new strategies for providing education and training. Below are a few examples of programs that have connected secondary school CTE students with apprenticeship programs.

LOCAL PARTNERSHIP

Puget Sound Skills Center (PSSC), Construction Technology Program, Seattle, WA

The success of the PSSC Construction Technology CTE program can be attributed, in part, to having achieved state approval as a recognized pre-apprenticeship program, which was driven by the program's strong local partners. The Pacific Northwest Regional Council of Carpenters, the Washington Carpenters Institute, local general contractors, and other partners instigated PSSC's pursuit of pre-apprenticeship designation and provided letters of support for the application. In addition, the Construction Center for Excellence, which is part of the state's sector strategy initiative, and helps lead statewide education curriculum and training efforts, served as an intermediary for PSSC and its industry partners to support and facilitate this collaboration. [Learn more in the "Key Partners" section of the PSSC Site Profile](#)

COMMUNICATION IN ACTION

Charleston Youth Apprenticeship Program, Charleston, SC

Trident Technical College, program leaders, and the Chamber of Commerce host an annual signing day to celebrate the newest youth apprentices across all industry sectors. The ceremony brings together students, employers, parents, and even the media to create a sense of accomplishment and excitement around the event.

Many of those interviewed during site visits—including college faculty, students, parents and employers—said the signing day was a special event that helped bolster pride and prestige in the youth apprenticeship program. For the college and its employer partners, the signing day also serves as one of its most successful recruitment activities. The visibility of these signing days not only helps efforts to recruit students but also attracts the attention of other employers, some of whom have become involved in the program. [View Video: Youth Apprenticeship Signing Day 2015](#)

EQUITY AND ACCESS IN ACTION

Tech Ready Apprentices for Careers in Kentucky (TRACK) Russell Springs, KY

In addition to providing information sheets that dispel myths about youth labor laws, Kentucky has leveraged its existing relationship with Adecco, a national staffing agency, to address employer concerns about insurance and liability issues for employees under 18. Under the state's Youth Employment Solutions (YES) program, Adecco manages the administrative and legal elements of work-based learning, including TRACK. According to the state, the YES program has helped remove barriers for some employers, facilitating their ability to participate in TRACK. Adecco also helps recruit employers and prepare students with the professional skills they will need to be successful in the workplace. [Learn More at Tech Ready Apprentices for Careers in Kentucky \(TRACK\) Website](#)



RESOURCES

Below are links to resources and tools that state teams can access for additional information.

DOCUMENTS

[Opportunities for Connecting Secondary Career and Technical Education \(CTE\) Students and Apprenticeship Programs](#)

[A Planning Guide for Aligning Career and Technical Education \(CTE\) and Apprenticeship Programs](#)

VIDEOS

[Expanding Opportunities: Aligning Career and Technical Education and Apprenticeship](#)

[Elements of Career and Technical Education \(CTE\) and Apprenticeship Alignment](#)

SITE PROFILES

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